Digital Markets in the EU

Marc Veenbrink,
Anne Looijestijn-Clearie
& Catalin S. Rusu (eds)

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Radboud Economic Law Series

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About This Series

Radboud Economic Law Series

The aim of this series is to disseminate ideas and research presented at the Radboud Economic Law international conferences, which are organised annually by the staff of the International and European Law Department of Radboud University Nijmegen, the Netherlands. The conference and the published contributions focus on economic law. This legal field is dynamic and broad. Its complexity stems from the multitude of sub-domains embedded in it, as well as from the interplay between them. Economic law entails constantly developing policies and frameworks, multi-layered regulatory and law enforcement regimes, and actors active at various (domestic and transnational) jurisdictional levels. This series attempts to unravel some of the complexities which occur in the interplay between various international, EU, and domestic legal aspects pertaining to the economic law realm. Each conference, and consequently each resulting edited volume, discusses a specific economic law development from academic and practical perspectives. Therefore, the interdisciplinary nature of this series makes it attractive for academics and practitioners with an interest in (international, EU, and domestic) economic law.

TITLES IN THIS SERIES

- Boosting the Enforcement of EU Competition Law at the Domestic Level (Cambridge Scholars Publishing, 2017)
- Digital Markets in the EU (2018)
- Upgrading Trade and Services in EU and International Economic Law (forthcoming, 2019)

Acknowledgments

This volume is based on the contributions presented at the second Radboud Economic Law Conference, held at Radboud University Nijmegen, the Netherlands, on 9 June 2017. The theme of this conference was focused on 'Digital Markets in the EU'. The speakers present at this event dealt with various economic law issues pertaining to digitalisation, ranging from the dynamic behaviour of players active in digital markets, to the challenges faced by regulatory, enforcement, legislative, and judicial entities, when it comes to designing, applying, and interpreting the law in this new era. In this respect, the conference, and this volume for that matter, touch upon diverse, yet interconnected branches of (EU and domestic) economic law: competition law, sectoral regulation, consumer protection, services of general economic interest, free movement, data sharing and cyber security, etc.

The editors of this volume would like to express their gratitude to a number of persons without whose help both the conference and this volume would not have been possible. We are thankful to the Faculty of Law of the Radboud University Nijmegen for giving us the opportunity to host this conference in the Grotius Building. We are also grateful to all the speakers who presented their interesting research findings during the conference and then contributed to this volume. Many thanks go to Professors Johan van de Gronden, Antoon Quaedvlieg, and Wolf Sauter, who chaired the discussion sessions during the conference, in a stimulating and thought-provoking manner.

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This volume takes account of the law(s) in force and rulings handed down up until 30 November 2017.

Marc Veenbrink, Anne Looijestijn-Clearie and Catalin S. Rusu

Nijmegen, February 2018

List of Abbreviations

ACM	Authority for Consumers and Markets
AI	Artificial Intelligence
APPA	Across-Platform Parity Agreements
B2C	Business-to-Consumer
BEREC	Body of European Regulators for Electronic Communications
C2C	Consumer-to-Consumer
CERRE	Centre on Regulation in Europe
CJEU	Court of Justice of the European Union
DSM	Digital Single Market
ECJ	European Court of Justice
ECN	European Competition Network
ENISA	European Union Agency for Network and Information Security
ETC	Eligible Telecommunications Carrier
EU	European Union
FCC	Federal Communications Commission
GC	General Court
GDPR	General Data Protection Regulation
INSPIRE	Infrastructure for Spatial Information in the European Community
ISP	Internet Service Provider
ITS	Intelligent Transport System
NGN	Next Generation Networks
OTA	Online Travel Agency
R&D	Research and Development
TEU	Treaty on the European Union
TFEU	Treaty on the Functioning of the European Union

Foreword

*Johan van de Gronden**

The digital revolution has brought about major changes in modern society. It does not come as a surprise that competition law and other areas of economic law are confronted with the challenges resulting from this revolution. Important questions must be addressed. For example, is competition law capable of accommodating the special features of digital markets? In the past, the EU competition rules were subject to a process of decentralisation and the economic approach also reshaped these rules. Are the Treaty provisions on competition sufficiently flexible to do justice to the emergence of ICT applications, such as price bots and algorithms? What is the response of the European courts to these developments? Are these courts capable of reshaping and bending the classic European competition rules, which date back to the Treaty of Rome of 1957, in such a way that they address adequately the challenges of the innovative and flashy ICT applications? Is competition law too old to tackle the problems of the 21st century? Or, on the contrary, should it be pointed out that EU competition law provides the tools that are desperately needed for taking action against enterprises that operate on global ICT markets. Given their size and importance, such firms could escape the scrutiny of national state bodies. In these circumstances, the European Commission, as a supranational authority, can exercise countervailing power against the large enterprises operating on a wide variety of global ICT markets. The large fines imposed on companies, such as Google, demonstrate that the European Commission does not shy away from taking firm action. Then again, it should be awaited whether the decisions of the Commission will pass the judicial review of the European courts.

In any event, information plays a key role in digital markets. Data related to, for example, consumer behaviour are of great economic value. Access to these data determines whether corporations will be successful or will fail. In close relation to this, the question arises how these data should be protected? Enhancing consumer welfare by introducing new digital products must not jeopardise the privacy of the consumer. To put it differently, consumer welfare presupposes

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that the privacy of the consumers browsing the internet in their search for new products or services is respected.

All these developments call for action. The European Commission has answered this call by launching its Digital Single Market Strategy for Europe. The EU Internal Market should reap the benefits resulting from the digital revolution and, accordingly, barriers to online trade have to be removed. However, consumers as well as economic operators must also be protected from the adverse effects of this revolution. Intervening on digital markets is walking a fine line: it requires a good balance of all interests, objectives, and values at play.

It is clear from the outset that it is inevitable to rethink competition and economic law in light of the rapid ICT developments. The changes resulting from the digital revolution will have a considerable impact of these areas of law. The volume 'Digital Markets in the EU' offers a great opportunity to explore issues that are relevant in this respect. Both scholars and practitioners have contributed to this volume, approaching the subject of digital markets from different angles. Well-known concepts of European competition law are revisited and their ability to respond to ICT developments is tested. New legislative developments are analysed and reviewed: what action is needed regarding, *inter alia*, the collaborative economy, the access to data, and cyber security? The analyses carried out by the authors lead to valuable and interesting insights.

A wide variety of legal issues and legislation are discussed, but the common denominator is constituted by the challenges the emergence of digital markets gives rise to. This overarching theme ties together the interesting contributions written by the authors. The present volume is an excellent starting point for studying the relationship between economic law, digital markets, and ICT.

Chapter 1:

State of the Art and Prospective Directions in the Digitalisation of Economic Law

*Catalin S. Rusu, Anne Looijestijn-Clearie and Marc Veenbrink**

1. Setting the Scene: The Digital Economy and Digital Markets

The digitalisation phenomenon has become unprecedentedly prominent in the recent past. It can be rightfully argued that digitalisation has tremendously influenced our lives and it can be estimated that it will continue to do so, with profound consequences on various facets. It has changed not only the way we communicate, but also what we communicate. It has made it easier to share information quickly and inexpensively among a large number of people.[1] It has also created faster paths for consumers to reach the suppliers of the products and services they desire, to compare the available offers, and in this respect, it has created new ways of interaction between these actors. Beyond reshaping our lifestyles, digitalisation has also revolutionised all sectors of the economy.[2] It has facilitated the development of novel technologies, consequently of new types of products and services, and for that matter, of new types of businesses and markets. Furthermore, digitalisation has forced existing market players to adapt their business models,[3] to the point where even the eminently 'offline' types of activities have nowadays some sort of 'online presence'. Going further, digitalisation brought about a fundamental change in the way people work, while seeming to signal an end to waged labour, the total liberalisation of services, and the extension of worldwide competition far beyond the wildest

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1 See the Informal Company Law Expert Group, Report on Digitalisation in Company Law, (2016), available at: http://ec.europa.eu/justice/civil/files/company-law/icleg-report-on-digitalisation-24-march-2016_en.pdf (last accessed: 21 November 2017).

2 A. Mundt, 'Digitalization Revolutionizes the Economy and the Work of Competition Authorities', (CPI Antitrust Chronicle, February 2017), available at: https://www.competitionpolicyinternational.com/wp-content/uploads/2017/02/CPI-Mundt.pdf (last accessed: 21 November 2017).

3 Ibid.

dreams of those supporting the Bolkestein Proposal for a Services Directive.[4,5] All in all, digitalisation has prompted the emergence of a new type of economy, the 'digital economy', the growth of which has eclipsed that of traditional markets, by expanding globally at an exponential rate. Nowadays, every business, irrespective of its core purpose, can join the digital economy, and the adoption of digitalisation is likely to be a critical determinant of future growth.[6]

There are many ways in which the notion of digital economy may be defined. Essentially, this concept relates to the worldwide network of economic activities, commercial transactions, and professional interactions that are enabled by information and communications technologies. In other words, we are talking about an umbrella term used to describe markets that focus on digital technologies, thus using 'bits instead of atoms'.[7] In this context, the emergence of the digital economy entails a reshaped interaction between the 'analog' and 'digital' worlds, while signalling a shift from physical exchanges to those conceived in a cyber-environment.

This last assertion entails a reconceptualization of the manner in which the traditional economy and the digital economy are bridged. To this end, it is important to understand what the features are that set digital markets apart. From the outset, such markets pertaining to the digital economy are unique in a number of ways.[8] First, these markets are dynamic, or better yet cyclical, since market power is transient due to vulnerability to displacement by the next cycle of innovation. Competition between the players active in such markets exhibits tendencies towards 'winner takes all' competition *for* the market.[9] Second, in this context, fast-paced and often disruptive innovation plays a key role in this environment. Such innovation obviously requires high rates of investment

4 Commission, Proposal for a Directive of the European Parliament and of the Council on Services in the Internal Market, SEC/2004/21, COM/2004/0002 final.

5 C. Degryse, 'Digitalisation of the Economy and Its Impact on Labour Markets', (2016) ETUI Working Paper No. 2016.02, available at: https://www.etui.org/Publications2/Working-Papers/Digitalisation-of-the-economy-and-its-impact-on-labour-markets (last accessed: 21 November 2017).

6 See N. Elverston and A. Hale, 'An Introduction to Digitalisation', available at: https://www.ashurst.com/en/news-and-insights/legal-updates/get-digital-an-introduction-to-digitalisation/ (last accessed: 21 November 2017); OECD Hearings, The Digital Economy, (2012), DAF/COMP(2012)22, available at: http://www.oecd.org/daf/competition/The-Digital-Economy-2012.pdf (last accessed: 21 November 2017).

7 See also D. Tapscott, *The Digital Economy: Promise and Peril in the Age of Networked Intelligence*, (McGraw-Hill, 1997); N. Negroponte, *Being Digital*, (Alfred A. Knopf Inc., 1995); OECD, note 6.

8 See Commission, DG for Internal Policies, Challenges for Competition Policy in a Digitalised Economy, (2015), IP/A/ECON/2014-12, 7; V. Robertson, 'Delineating Digital Markets under EU Competition Law: Challenging or Futile?', (2017) 12 The Competition Law Review (2). By no means is the following enumeration to be perceived as exhaustive.

9 OECD, note 6, 5-6.

in R&D, which is at the same time prone to yield rapid technological progress and growth.[10] Third, digital markets are often built on multi-sided platforms, in which an intermediary operates a digital infrastructure used to match buyers and sellers of certain goods or services.[11] Building such platforms often requires high investments / fixed costs. Given that the success of the platform rests with the intermediary's ability to attract many buyers and sellers, such markets are consequently characterised by direct and indirect network effects. This often leads to high market concentration, since the more the platform grows, the more difficult it becomes for competitors to challenge the position of the platform. This discussion may obviously be linked to the 'winner takes all' outcome pointed out above.[12] Fourth, and nevertheless, digital markets may still be relatively contestable, allowing entrants to quickly reach a large segment of the market, because service providers have multiple routes available for delivering digital services to end users. In such settings, when barriers to entry are low, market power can be challenged by entrants more easily and often faster than in more traditional fields of the economy.[13] Fifth, consumers active in such markets often face high and diverse switching costs.[14] This feature may again be connected to the 'winner takes all' discussion above, since the higher the difficulty in switching to other providers is, the more pronounced the so-called 'lock-in effects' will be. Sixth, services are often provided in the digital marketplace for free. Since we are dealing chiefly with multi-sided platforms, the providers will obtain their revenue from selling advertising space.[15] Facing this setting, consumers are highly price sensitive and will quickly search for substitutes when price becomes a factor in their decision making. Yet, seventh (and for now, lastly) consumers will often, and at times unknowingly, 'pay by disclosing their personal data' for the 'purchased' services.[16] Thus, data becomes the 'currency' in digital markets, since businesses collect them for use in behavioural advertising, or for the

10 Ibid, 6. See also M. Kadar, 'European Union Competition Law in the Digital Era', (2015) 4 Zeitschrift für Wettbewerbsrecht, 342 *et seq.*

11 See also M. Kadar, note 10; P. Solano Diaz, 'EU Competition Law Needs to Install a Plug-in', (2017) 40 World Competition (3); T. Hoppner, 'Defining Markets for Multi-Sided Platforms: The Case of Search Engines', (2015) 38 World Competition (3).

12 See also Commission, note 8, 8.

13 Ibid, 7.

14 R.H. Weber, 'Competition Law Issues in the Online World', 20th St. Gallen International Competition Law Forum, available at: https://www.bratschi-law.ch/fileadmin/daten/dokumente/publikation/2013/04_April/SSRN-id2341978.pdf (last accessed: 21 November 2017).

15 See also Monopolkommission, Competition Policy: The Challenge of Digital Markets, (2015), 5, available at: http://www.monopolkommission.de/images/PDF/SG/s68_fulltext_eng.pdf (last accessed: 21 November 2017).

16 See also M. Maher, P. Reynolds, P. Muysert and F. Wandschneider, 'Resetting Competition Policy Frameworks for the Digital Ecosystem', (2016), available at: https://www.gsma.com/publicpolicy/resetting-competition-policy-frameworks-for-the-digital-ecosystem (last accessed: 22 November 2017).

purpose of reselling to third-parties.[17] This setting renders consumer data in digital markets as an immensely valuable and strategic asset, particularly when it cannot be easily replicated by competitors.

2. The Challenges Raised by the Digital Economy and Digital Markets

The specific features which characterise digital markets, as briefly discussed above, and more broadly speaking, the reframed manner in which the relationship between the traditional economy and the digital economy should be perceived, evidently bring forward diverse types of benefits and challenges. As already previewed in the introduction above, this is so, as far as diverse categories of stakeholders are concerned: consumers, businesses and market players, legislators, enforcement authorities, etc. Speaking of the legislative and enforcement mechanisms which are of relevance for the digitalisation of the economy, various challenges have and will continue to arise with regard to various areas of the law affected by the digitalisation phenomenon, ranging from competition and free movement law, to human rights law and labour law, just to name a few.

The breath of the digital economy, and for that matter the countless segments of the economy in which digital markets have emerged, makes it virtually impossible to pinpoint all the challenges that have already materialised, or to preview those which are likely to arise in the future. Since an all-encompassing approach is this respect seems unrealistic, in the following paragraphs we will touch upon some noteworthy items which shape the current discussions surrounding digital markets in the EU.

So, what are the main challenges the actors in digital markets face nowadays? To start off, the balance between the traditional economy and the digital economy has shifted tremendously in a rather short time span, due to the emergence of digital markets. A facet of this trend relates to the consumers purchasing a great deal of the services and products they need online, from the comfort of their own homes. This resulted in many traditional, brick-and-mortar (retail) businesses taking a serious hit, and needing to readjust their business tactics. Good examples here are travel agencies, newspapers, book publishers, etc. This does not necessarily mean that all traditional economy businesses are prone to experiencing difficulties due to digitalisation. The transport, manufacturing, food, etc. sectors could arguably be (more or less) neutral to the pressure that

17 See also N. Elverston and A. Hale, note 6; I. Graef, 'Market Definition and Market Power in Data: The Case of Online Platforms', (2015) 38 World Competition (4).

digital markets bring about. But overall, one could argue that the emergence of the digital economy changed the outlook of the consumer-supplier and the business-to-business relationships. In this respect, one needs to look no further than the challenges brought about by the sharing economy in the recent past, which indeed put such relationships in a different light, when talking for example about how interactions between such actors occur in the context of the AirBnB and Uber platforms.

Speaking of the actors active on digital markets, one may observe that, due to better access to information and enhanced choice, consumers have become increasingly demanding and proactive, by systematically using peer review systems for comparing offers, rather than simply relying on brand reputation and on the information provided by suppliers. This setting reshapes the manner in which commercial transactions are conceived, especially when it comes to marketing, advertising, and generally speaking, redefining the strategies surrounding business-to-consumer relations.[18] Under these circumstances, the products or services that consumers view as interchangeable change rapidly. Assessing substitutability on behalf of the consumers has become, in other words, a more dynamic and demanding process, which is more difficult to set in stone, than in the case of the traditional economy. The same stands as far as supply-side substitution is concerned, since assessing such substitution in the digital ecosystem is arguably even more speculative than in traditional industries, due to the fast pace of innovation.[19]

In order to cope with such fast-pace and demanding innovation, businesses active on digital markets must adapt their business models and their approach to how to best speculate the market opportunities. Digitalisation actually helps them cut costs and thus achieve cost efficiencies and develop new revenue streams. Furthermore, new forms of financing, such as crowd-funding have caught ground, especially when it comes to start-ups.[20] Yet, in order to stay competitive, such resources must be invested in intensive R&D activities. Alternatively, businesses may choose to engage in collaborative efforts, at times with competitors, or in M&A transactions, which open the path to a smoother access to proprietary assets.

18 See also European Economic and Social Committee, Impact of Digitalisation and the On-Demand Economy on Labour Markets and the Consequences for Employment and Industrial Relations, (2017), 27, available at: https://www.ceps.eu/system/files/EESC_Digitalisation.pdf (last accessed: 22 November 2017).

19 See also M. Maher, P. Reynolds, P. Muysert and F. Wandschneider, note 16, 8, 14, referring to C. Pleatsikas and D. Teece, 'The Analysis of Market Definition and Market Power in the Context of Rapid Innovation', (2001) International Journal of Industrial Organization 19.

20 N. Elverston and A. Hale, note 6.

On a connected note, relating to the adaption of business models in digital markets, an interesting phenomenon relates to establishing new and stronger links between different sectors of the economy, which were not, or were more loosely connected in the past. An example in this respect is the sector of passenger air transport and those of hotel accommodation and car rentals. It is customary these days to see companies which have expanded their activities from one to more such connected markets. Furthermore, based on the data collected, such market players may use various techniques, such as price adjustment algorithms, for targeting their pricing policies, taking into account the demand and supply fluctuations from such connected markets. Similar techniques of price targeting may nowadays also be identified in more traditional sectors of the economy, when it comes to supermarkets, for instance, offering targeted, sometimes personalised, discounts for products the demand for which exhibits abnormal fluctuations during specific timeframes. This last setting signals a somewhat reversed, and to a certain extent unexpected interconnection between tools and techniques specific to the traditional and the digital economy, respectively, which at the end of the day, makes the delineation between these two facets of the economy harder.

Moving on, businesses which make use of consumer data face further challenges when it comes to the use of those data. In such circumstances, it is key that prior to the collection, storage, and processing of such data, the proper arrangements are put in place to ensure compliance with the existing legislation meant to safeguard the protection of the consumers' personal information. Next, when talking about the exploitation of the data, issues concerning the transparency, as far as the data origin is concerned, as well as issues relating to the manner in which access to the data is granted, have to be accurately tackled.[21] One step away from this discussion is the issue of cyber security, which is key when speaking of the due diligence that needs to be exercised in the context of various commercial arrangements taking place in digital markets settings.

While the paragraphs above provide a very brief account of some of the challenges that the digital economy and the spread of digital markets have, or may bring to the table, there is widespread consensus[22] that one of today's

21 See also M. Vestager, 'Helping People Cope with Technological Change', Speech, Rencontres de Bercy, (Paris, 21 November 2017), available at: https://ec.europa.eu/commission/commissioners/2014-2019/vestager/announcements/helping-people-cope-technological-change_en (last accessed: 27 November 2017).

22 See, among many others, J. Confraria, 'A Future for Ex-Ante Electronic Communications Regulation?', (2017) 12 The Competition Law Review (2); P. Solano Diaz, note 11; V. Robertson, note 8; C. Degryse, note 5.

greatest challenges relating to the digitalisation of the economy is how the law deals with this phenomenon.

3. How Does the Law Tackle These Challenges?

It is an undisputed fact that (most of) the laws currently in force were drafted before the digitalisation phenomenon started materialising.[23] As briefly portrayed above, the emergence of new types of market players, new business models, new markets and techniques of acting on a market, challenges the longstanding, and at times inflexible, legal regimes that are currently in place. In this context, the legitimate question arises as to how the law should account for the digitalisation phenomenon? Is the law ready to deal with the challenges that the digital economy brings forward? Are there adjustments that need to be performed on the current regulatory and enforcement frameworks, and if so, how should they be conceived in order to accurately tackle the digitalisation challenges? The volume at hand aims to provide a (more or less) brief account of the various flavours of the approach that economic law and regulation in the EU Internal Market have adopted, or are prone to develop in the future, in order to meet the needs of the various stakeholders active in the digital economy, and to appropriately cope with the legal challenges occurring in digital markets.

From the outset, such questions and the discussions surrounding the digitalisation challenges exhibit two main facets, relating to the material rules provided in the law(s) and to the practical enforcement of such rules. With regard to the former, certain fundamental issues need to be tackled from the get-go: which areas of the (economic) law should be called upon to handle a given practical situation dealing with the various facets of digitalisation? How to delineate the application of rules belonging to various legal branches: free movement law, competition law, sectoral regulation, etc.? Further, how far may the boundaries of the existing laws be stretched in order to accommodate digitalisation challenges and concerns? Is there a solid case that can be made for issuing new legislative tools at EU level, or would soft law / policy guidelines suffice to address the existing and forthcoming challenges? To be more specific, for example, what can competition law do, and what can't it do in digital markets? Moving on, if one deems it appropriate to draft new legal regimes in order to tackle the novel issues brought about by the digital economy, is establishing an overarching (policy) cap, defining the guiding lines of future legal action, appropriate, or would a piecemeal approach suffice in this respect? In the same context, and returning somewhat in the vicinity of competition law

23 See also Informal Company Law Expert Group, note 1, 6.

in the EU, what arguments should drive the choice between competition and sectoral regulation, in various segments of the digital economy? Is the choice between *ex-post* enforcement and *ex-ante* regulatory intervention a valid breeding ground for solving the digital economy 'trials'?

This last question brings us to the second facet of this volume's overarching question, namely how should the enforcement of the law adapt to the challenges of digitalisation in the EU Internal Market? This question has gained increasing significance over time, in the broader picture of the fundamental rationale of the application of the law, given that the value of the substantive rules would become redundant, in the absence of coherent and consistent practical enforcement mechanisms for the said material rules. Therefore, how is enforcement of the law to be conceived in the digital economy context? What degree of intervention should be regarded as desirable, so that markets stay competitive, while innovation is not stifled, or better yet, fostered? Does the focus of the enforcement agencies need to be refined, and in this respect, is added value created from bundling competition and regulatory powers within one and the same enforcement agency? Is there a need for more consistent international cooperation between the respective enforcement agencies, especially since the digitalisation phenomenon is capable of expanding the geographic definition of markets to trans-jurisdictional or even worldwide dimensions? Furthermore, are enforcement authorities in need of extended powers, so that digital evidence is properly collected and fed into the legal analysis to be performed? How should markets be defined in the digital economy and are the existing tools used for market analysis and market power, such as the SSNIP test, market shares, etc., appropriate to identify competition concerns in digital markets? Is there a need for new assessment benchmarks for the behaviour of digital markets actors, since such markets exhibit dynamic / fastly-changing features, and since digital products are often offered 'free of charge'?

The questions above are merely some of the many items on the agenda of the domestic and EU regulators and enforcers, in their attempt to deal with the digitalisation challenges in the EU (and beyond). The enumeration above thus showcases the magnitude of the legal and enforcement issues that digital markets raise in the current EU economic ecosystem. Once again, an all-encompassing approach to solving such challenges is far beyond the purpose of the volume at hand. Instead, in the following paragraphs, we will attempt to first decipher some of the initiatives taken at the EU level to this end, while also attempting to preview some of the foreseeable enforcement and jurisprudential developments, bound to occur in the near future. Next, we

will identify and elucidate the correct context in which some of the proposals put forward by the contributions included in this volume may be placed, while having in mind the broader context of the challenges that the digitalisation of the economy has brought and will continue to bring to the forefront.

4. Initiatives at EU Level

The developments in the digitalised world have not escaped the attention of the EU institutions, in particular that of the European Commission. In order for businesses and consumers in the EU to benefit fully from the digitalised economy, the Commission has not only put forward a number of proposals for EU legislation and policy, but has also, in the field of EU competition law, stepped up its enforcement activities.

4.1. Regulatory Developments

On 6 May 2015, the Digital Single Market (DSM) Strategy for Europe,[24] the flagship of the Junker Commission, was unveiled. The objective of this Strategy is to create an EU Digital Single Market which is defined as a market "in which the free movement of goods, persons, services and capital is ensured and where individuals and businesses can seamlessly access and exercise online activities under conditions of fair competition, and a high level of consumer and personal data protection, irrespective of their nationality or place of residence."[25] With its DSM Strategy, the Commission aims to break down (fragmented) regulatory barriers and ensure that competitors can operate in a free and fair market. The creation of a Digital Single Market will also ensure that the EU maintains its position as a world leader in the digital economy, help European companies to grow globally and increase the attractiveness of the EU for global companies established outside its borders.

These objectives will be achieved by a combination of amendments to existing EU legislation and by the adoption of new legislation and policy initiatives. The Commission hopes that these initiatives will contribute an additional €415 billion per year to the economy of the EU,[26] create jobs and transform public services in the EU.

The DSM Strategy is built on three pillars: (1) better access for consumers and businesses to online goods and services across the EU; (2) creating the right

24 Commission, Communication, A Digital Single Market Strategy for Europe, COM/2015/192 final.
25 Ibid, 3.
26 Ibid.

conditions and a level playing field for digital networks and innovative services to flourish; (3) maximising the growth potential of the EU digital economy. Each of these three pillars contains a number of specific target actions (16 in total) which form the cornerstone of the DSM Strategy. It is impossible in this Chapter to deal with all of these target actions. We will, therefore, limit ourselves to a brief selection of a number of key developments.

Under the first pillar, the Commission intends to remove major differences between the online and offline worlds and to eradicate barriers to cross-border online activity. Target actions to be taken under this pillar include abolishing differences in contract and copyright law between the Member States and simplifying VAT rules. In order to create consumer confidence in cross-border online sales, affordable and high-quality cross-border parcel delivery services are also required. The Commission will, therefore, launch measures to improve price transparency and enhance the regulatory supervision of parcel delivery. The DSM Strategy also intends to lay down a suitable e-commerce framework and prevent unfair discrimination against consumers and businesses (with regard to nationality, residence or geographic location) when they attempt to buy goods and services or access content online. To this end, the Commission will draw up legislative proposals to put a stop to unjustified geo-blocking.

The second pillar is concerned with creating the right conditions and a level playing field for advanced digital networks and innovative services. According to the Commission, the DSM must be based on be reliable, trustworthy, high-speed, affordable networks and services that safeguard consumers' fundamental rights to privacy and personal data protection while at the same time encouraging innovation. In order to bring this about, a strong, competitive, and dynamic telecoms sector is needed which can carry out the necessary investments and exploit innovations such as Cloud computing, Big Data and the Internet of Things. In this context, the Commission fears, however, that the market power of some online platforms may give rise to concern.[27]

Under this pillar, the Commission is planning an ambitious reform of the EU telecom rules in order to make them 'fit for purpose' and a review of the current Audiovisual Media Services Directive[28] in order to adapt it to new business models for content distribution. The growing market power of online platforms (e.g. search engines, social media, e-commerce platforms, app stores, price

27 Ibid, 9.

28 Directive 2010/13/EU of the European Parliament and of the Council of 10 March 2010 on the Coordination of Certain Provisions Laid Down by Law, Regulation or Administrative Action in Member States Concerning the Provision of Audiovisual Media Services (Audiovisual Media Services Directive), [2010] OJ L 95/1.

comparison websites) and the way in which they use this market power is of particular concern to the Commission. Therefore, the Commission plans to launch a comprehensive assessment of the role of such platforms which will cover issues such as: (i) transparency, (ii) platforms' use of the information which they collect, (iii) relations between platforms and suppliers, (iv) obstacles making it difficult for individuals and businesses to move from one platform to another and (v) an analysis of how best to tackle illegal content on the internet.[29]

The third pillar is intended to maximise the growth potential of the digital economy in the EU so that every EU citizen can enjoy its full benefit. According to the Commission a range of measures is needed in order to ensure that European industries play a lead role in developing and exploiting digital technology, automation, sustainable manufacturing, and processing technologies to serve the markets of the future. Also, EU citizens are at present not receiving the full benefit of digital services (such as e-government, e-health, e-energy, and e-transport).[30]

Measures proposed by the Commission to close these gaps include tackling restrictions on the free movement of data for reasons other than the protection of personal data in the EU and unjustified restrictions on the location of data for storage or processing purposes. Furthermore, the Commission intends to define priorities for standards and interoperability aiming to ensure that in the future all devices will be able to connect and share data with each other, regardless of the manufacturer, operating system or other technical details. The Commission also intends to present a new e-Government Action Plan 2016-2020 to connect business registers across the EU and to ensure that different national systems can work together, thus permitting businesses and individuals to have to communicate their data to public administrations only once (the 'Only-once' principle).

In summary, the proposals put forward by the Commission in the DSM Strategy can, broadly speaking, be divided into two groups: those geared at uniting the fragmented EU digital market and those aimed at curtailing possible abuses of market power.

In May 2017, halfway through its term of office, the Commission published a Mid-Term Review of the DSM Strategy.[31] This Review evaluates and presents the progress made in implementing the DSM Strategy since 2015 and points

29 Digital Single Market Strategy, note 24, 12.

30 Ibid, 14.

31 Commission, Communication, Mid-Term Review on the Implementation of the Digital Single Market Strategy. A Connected Digital Single Market for All, (Mid-Term Review), COM/2017/228 final.

out where further actions are needed. It is accompanied by the 2017 European Digital Progress Reports[32] outlining the progress made both at EU and Member State level and a Staff Working Document[33] providing an overview of the implementation of the DSM Strategy to date.

The Mid-Term Review mentions that the Commission has tabled 35 legislative proposals and policy initiatives to stimulate the different target actions underlying the three pillars outlined above. The focus is now on obtaining agreement with the European Parliament and the Council in order to finalise the Commission's proposals. The Commission calls on these institutions to act swiftly on all proposals already tabled.

At the time of the review, agreement with the European Parliament and the Council had been reached only regarding the following issues:

- The abolition of roaming charges as of 15 June 2017.[34] This means that, when travelling in the EU, consumers will pay the same price for telephone calls, text and internet usage as they pay at home.
- The portability of online content.[35] This means that, from early 2018, consumers will be able to access their subscriptions to online content (films, e-books, music, video games, sporting events, etc.), not only in their Member State of residence, but also when travelling in other Member States.
- The new EU General Data Protection Regulation (GDPR)[36] which will come into force on 25 May 2018. This Regulation aims to protect individuals with regard to the processing of their personal data and to guarantee the free movement of such data. This Regulation is a modernised and tighter version of the 1995 Data Protection Directive.[37] It sets stricter requirements than its predecessor and provides for high fines for infringers.

32 Commission, Staff Working Document. Europe's Digital Progress Report 2017, SWD/2017/160 final.
33 Commission, Staff Working Document, SWD/2017/155 final.
34 Regulation 2015/2120 of the European Parliament and of the Council of 25 November 2015 Laying Down Measures Concerning Open Internet Access and Amending Directive 2002/22/EC on Universal Service and Users' Rights Relating to Electronic Communications Networks and Services and Regulation 531/2012 on Roaming on Public Mobile Communications Networks within the Union, [2015] OJ L 310/1.
35 Regulation 2017/1128 of the European Parliament and of the Council of 14 June 2017 on Cross-Border Portability of Online Content Services in the Internal Market, [2017] OJ L 168/1.
36 Regulation 2016/679 of the European Parliament and of the Council of 27 April 2016 on the Protection of Natural Persons with Regard to the Processing of Personal Data and on the Free Movement of Such Data, and Repealing Directive 95/46/EC (General Data Protection Regulation), [2016] OJ L 119/1.
37 Directive 95/46/EC of the European Parliament and of the Council of 24 October 1995 on the Protection of Individuals with Regard to the Processing of Personal Data and on the Free Movement of Such Data, [1995] OJ L 281/31.

- The co-ordination of the availability of 700 MHz band across the EU as of 2020.[38] This spectrum is required for 5G networks and the new services associated with them (connected cars, remote healthcare, smart cities) to work.

The Mid-Term Review demonstrates that there is still much work to be done if the Commission is to achieve its aim of implementing the DSM Strategy in 2018. Apart from the initiatives already tabled, the Commission also highlighted three main areas where further immediate action is required:[39]

- The European Data Economy. The Commission intends to prepare legislative proposals on the cross-border free flow of non-personal data in 2017, and an initiative on the accessibility and re-use of public and publicly funded data in early 2018.
- Cybersecurity. By September 2017, the Commission intends to develop measures on cyber security standards, certification and labelling to make ICT-based systems more cyber-secure and to review the 2013 EU Cybersecurity Strategy and the mandate of the European Union Agency for Network and Information Security (ENISA) to ensure that they are aligned to the new EU-wide framework on cybersecurity and that they are fully equipped to deal with the new challenges that continue to arise.
- Online platforms. In its May 2016 Communication on Online Platforms,[40] the Commission identified two specific issues for further investigation: (i) a study of platform to business trading practices in order to ensure a fair and innovation-friendly business environment; and (ii) ensuring that illegal content online can be easily reported and effectively removed. To ensure a level playing field in platform-to-business practices, avoiding situations in which an online platform may favour one business to the disadvantage of others, by the end of 2017, the Commission will prepare legislation to address unfair contractual clauses and trading practices identified in platform-to-business relationships. It also intends to clarify the position on illegal online hate speech and on the sale of counterfeit goods, as well as developing practices for the removal of illegal content.

38 Decision 2017/899 of the European Parliament and of the Council of 17 May 2017 on the Use of the 470-790 MHz Frequency Band in the Union, [2017] OJ L 138/131.
39 Mid-Term Review, note 31, 7-13.
40 Commission, Communication, Online Platforms and the Digital Single Market. Opportunities and Challenges for Europe, COM/2016/288 final.

The Mid-Term Review also demonstrates that substantial additional investment in digital skills and infrastructure and technologies, combining resources from the EU, Member States, and the private sector, is greatly needed.[41]

The DSM will remain a priority for the Commission during the remainder of its term of office. However, the DSM initiatives must gather speed if the Commission is to provide the results it promised. 2018 is the last full year of office of the current Commission. In 2019, after the elections to the European Parliament, a new Commission will be appointed. This means that 2018 is going to be a key year for the DSM Strategy.

In October 2017, the Commission adopted its 2018 Work Programme[42] which sets out a challenging variety of legislative and policy initiatives to be realised in the context of the DSM Strategy. Annex 1 to this Work Programme mentions the following four new initiatives to be put forward in 2018:

- A proposal for legislation on fairness in platform-to-business relations;
- A non-legislative initiative addressing online platform challenges as regards the spreading of fake information;
- Revision of the Commission guidelines on market analysis and assessment of significant market power in the electronic communications sector;[43]
- A proposal for legislation establishing rules at EU level allowing taxation of profits generated by multinationals through the digital economy.

Annex 3 to the Work Programme sets out a number of pending proposals to which priority will be granted in 2018. This extensive list includes pending proposals in the following fields: cross-border parcel delivery, digital contracts (contracts for the supply of digital content and contracts for the online sale of goods), telecoms reform, copyright, copyright and related rights in broadcasting, a modernised audiovisual framework, the prevention of geo-blocking, e-privacy (a proposal for a Regulation on privacy and electronic communications which will repeal Directive 2002/58/EC),[44] EU internal data protection rules (aligned to

41 Mid-Term Review, note 31, 2.

42 Commission, Communication, Commission Work Programme 2018. An Agenda for a More United, Stronger and More Democratic Europe, COM/2017/650 final.

43 Commission Guidelines on Market Analysis and the Assessment of Significant Market Power under the Community Regulatory Framework for Electronic Communications Networks and Services, [2002] OJ C 1656.

44 Directive 2002/58/EC of the European Parliament and of the Council of 12 July 2002 Concerning the Processing of Personal Data and the Protection of Privacy in the Electronic Communications Sector (Directive on Privacy and Electronic Communications), [2002] OJ L 201/37.

the GDPR), free flow of non-personal data and a proposal for the setting up of an EU Cybersecurity Agency.

All in all, in the context of the DSM Strategy, 2018 promises to be an eventful year as far as legislation and policy initiatives are concerned.

4.2. Enforcement Developments

4.2.1. Enforcement by the European Commission

Free and fair competition is at the core of the Commission's plans for the DSM. The Commission, therefore, intends to eliminate all barriers to trade, erected by undertakings, capable of impeding the development of the digital economy in the EU. One prime example, according to the Commission, is the inclusion of contractual restrictions in distribution agreements that prevent retailers from selling goods or services online or cross-border to customers located in other EU Member States.

To this end, on 6 May 2015, the Commission launched, as part of its DSM Strategy adopted on the same day, a Sector Inquiry into E-Commerce, on the basis of the EU competition law rules (Article 17 of Regulation 1/2003).[45] The objective of the inquiry is to obtain an overview of the main market trends, collect evidence of possible competition barriers and analyse potentially anti-competitive business practices.

As part of the Sector Inquiry, the Commission requested information from a variety of stakeholders in e-commerce markets throughout the EU both with regard to the online sales of consumer goods (such as electronics, clothing, shoes, and sports equipment), as well as with regard to the online distribution of digital content. The results of this inquiry will help to focus the enforcement of the EU competition law rules on e-commerce business practices that are damaging for competition and cross-border trade. In the context of the inquiry, the Commission gathered evidence from nearly 1900 companies operating in the e-commerce fields of consumer goods and digital content. Furthermore, the Commission analysed around 8000 distribution contracts.

45 Regulation 1/2003 of the Council of 16 December 2002 on the Implementation of the Rules on Competition Laid Down in Articles 81 and 82 of the Treaty, [2003] OJ L 1/1.

On 15 September 2016, the Commission published a 290-page Preliminary Report on the E-Commerce Sector Inquiry[46] where it set out its initial findings. This Preliminary Report provides an overview of the main market trends relevant for competition law identified in the inquiry and points out possible competition law concerns. It was followed by a public consultation and a stakeholder conference, ending in November 2016.

On 10 May 2017, the Commission published its Final Report on the E-Commerce Sector Inquiry. The Final Report consists of two documents: a short summary document (only 16 pages)[47] and a 298-page Staff Working Document[48] (together the Final Report) that is more or less a restatement of the Preliminary Report. The Final Report contains the Commission's definitive findings and takes into account the observations received on the Preliminary Report. Since the findings in the Final Report are similar to those in the Preliminary Report, we will only provide a very brief overview of the findings set out in the Final Report.

The Report confirms the growing significance of e-commerce. It also identifies certain business practices that may restrict online competition. The Report should, therefore, encourage companies to review their current distribution contracts and bring them in line with the EU competition law rules. The Commission also mentions that many companies have already done so during the sector inquiry. The Commission also indicates that it may open own-initiative investigations to ensure compliance with the EU competition rules.

Like the Preliminary Report, the Final Report is divided into two separate sections: the first section deals with e-commerce in the consumer goods sector (the lion's share of the Report), while the second focuses on e-commerce in the digital content sector.

In the first section of the Report dealing with consumer goods, the Report confirms that the growth of e-commerce over the last decade and, in particular, increased online price transparency and price competition, has had a significant impact on companies' distribution strategies and consumer behaviour. The final results of the Sector Inquiry demonstrate the following main market trends:[49]

46 Commission, Staff Working Document. Preliminary Report on the E-Commerce Sector Inquiry, SWD/2016/312 final.

47 Report from the Commission to the Council and the European Parliament. Final Report on the E-Commerce Sector Inquiry, COM/2017/229 final.

48 Commission, Staff Working Document Accompanying the Final Report on the E-Commerce Sector Inquiry, SWD/2017/154 final.

49 See Commission, Press Release, 'Antitrust: Commission Publishes Final Report on E-Commerce Sector Inquiry', IP/17/1261, 10 May 2017.

- A large proportion of manufacturers have decided over the last ten years to sell their products directly to consumers via their own online retail shops, thereby competing increasingly with their own independent retailers;
- An increased use of selective distribution systems, where the products in question can be sold only by pre-selected authorised distributors, allows manufacturers to better monitor their distribution networks, in particular in terms of the quality of distribution but also price;
- An increased use of contractual restrictions (vertical restraints) to better control product distribution. Depending on the business model and strategy, such restrictions take various forms, such as pricing restrictions, marketplace / platform bans, restrictions on the use of price comparison tools and exclusion of pure online operators from distribution networks.

Some of these practices may be justified, for example in order to improve the quality of product distribution, whereas others may unduly prevent consumers from benefitting from greater product choice and lower prices and, therefore, may require action from the Commission to ensure compliance with the EU competition law rules.

An interesting part of the Final Report is a new section on the use of data in e-commerce. The Report highlights that the collection and processing of large amounts of data is becoming increasingly important for e-commerce. While Big Data allow companies to become more efficient and permit them to better target offers to fit the needs of the consumer, there are also potential competition concerns with regard to the collection and use of such data. This applies in particular to the exchange of competitively sensitive data, such as on prices or qualities sold, between competitors.

Another interesting issue touched upon briefly in the Final Report concerns pricing software. The Report points to the concern that (automated) pricing software could facilitate the monitoring of retail prices and thus reinforce resale price maintenance arrangements. Furthermore, the Report points out the concern that pricing software can create price transparency that may facilitate collusion between competitors.

The Report demonstrates that, in the field of the online sale of consumer goods, the Commission has uncovered evidence of widespread contractual restrictions affecting online sales which give rise to serious competition law concerns and which are likely to be the subject of further enforcement action by the Commission.

As far as the second section of the Report, digital content, is concerned, the Commission focused on barriers to entry or expansion and innovation. The results of the Sector Inquiry confirm that the availability of licences from content copyright holders is essential for digital content providers and is a key factor in determining the level of competition in the market.[50] The Report pinpoints certain licensing practices which may make it more difficult for new online business models and services to enter the market. It also finds that copyright licensing agreements are complex and often exclusive. Such agreements usually restrict the territory, technology and release windows that can be used by digital content providers.

In its Report, the Commission states that it will assess on a case-by-case basis, having regard to the characteristics of the specific product and geographic markets, whether certain licensing practices may restrict competition and whether enforcement is necessary in order to ensure effective competition. It also notes that the online distribution of digital content is a complex matter. Accordingly, it will assess each case on its specific merits. Enforcement action concerning possible infringements of competition law can, however, not be excluded.

One of the key findings of the Sector Inquiry is the widespread use of geo-blocking. Geo-blocking prevents consumers from purchasing consumer goods and accessing content online from other EU Member States. In March 2016, the Commission published its initial findings on geo-blocking.[51] These findings have now been incorporated into the Final Report on the E-Commerce Sector Inquiry. This Report shows that of the retailers, participating in the inquiry, who sell consumer goods, 38% 'geo-block', while 68% of the digital content operators engage in similar practices. The Report confirms that geo-blocking is one of the main issues in e-commerce markets and that the Commission is set on tackling it both by proposing new legislation and by stepping up the enforcement of the EU competition law rules. Geo-blocking is not prohibited under the EU competition law rules when it is the result of unilateral conduct by non-dominant undertakings. Where, however, geo-blocking results from agreements between suppliers and distributors, this may amount to an infringement of the EU competition law rules (Article 101 TFEU). Any competition law enforcement measure against geo-blocking would, however, have to be based on a case-by-case assessment, which would also include an analysis of potential justifications (such as VAT or public interest issues) for restrictions that have been identified.

In summary, the Final Report confirms that the Commission will adopt a more pro-active approach to the enforcement of the EU competition law rules in the e-commerce sector. The Report suggests that there will be a pronounced increase in the Commission's enforcement of vertical restraints and territorial restrictions. The Commission is sending an unambiguous signal that it will step up enforcement in order to stop certain practices hindering the creation of the DSM.

Finally, with regard to policy change, the Final Report makes clear that the Commission has no immediate plans for amending the Vertical Block Exemption Regulation.[52] The findings of the E-Commerce Inquiry will, however, serve as input when reviewing this Regulation leading up to its expiry in 2022.

Furthermore, on the basis of the results of the Sector Inquiry, the Commission has announced that it will broaden the dialogue with national competition authorities within the European Competition Network in order to promote a consistent application and interpretation of the EU competition law rules to commercial practices in the e-commerce sector.

True to its word, the Commission has recently launched a number of antitrust investigations in the e-commerce sector. Below, we provide an overview of these investigations.

In June 2015, one month after launching the E-Commerce Inquiry, the Commission opened formal antitrust proceedings into certain of Amazon's agreements with publishers concerning the distribution of e-books.[53] The investigation focused on most-favoured-nation or parity clauses, one of the issues of concern later identified by the Commission in the Final Report on the E-Commerce Sector Inquiry. These clauses allegedly granted Amazon the right to be informed of more favourable or alternative terms offered to its competitors, and / or the right to terms and conditions at least as good as those offered to its competitors. According to the Commission, these clauses may make it more difficult for other e-book distributors to compete with Amazon, by reducing their ability and incentive to develop new and innovative products and services. The clauses may possibly also limit competition between the various

50 Ibid.

51 Summary of Responses to the European Commission's 2015 Consultation on 'Geo-Blocking and Other Geographically-Based Restrictions when Shopping and Accessing Information in the EU, A synopsis of the report is available at: https://ec.europa.eu/digital-single-market/en/news/full-report-results-public-consultation-geoblocking (last accessed: 18 February 2018).

52 Commission Regulation 330/2010 of 20 April 2010 on the Application of Article 101(3) of the Treaty on the Functioning of the European Union to Categories of Vertical Agreements and Concerted Practices, [2010] OJ L 102/1.

53 See Commission, Press Release, 'Antitrust: Commission Opens Formal Investigation into Amazon's e-book Distribution Agreements', IP/15/5166, 11 June 2015.

e-book distributors to the detriment of consumers. The conduct of Amazon may, according to the Commission, violate EU the competition law rules that prohibit the abuse of a dominant position (Article 102 TFEU) and restrictive business practices (Article 101 TFEU). On 4 May 2017, the case was resolved when the Commission adopted a Decision, based on Article 9 of Regulation 1/2003,[54] rendering legally binding commitments offered by Amazon to no longer enforce or introduce such clauses in agreements with publishers.[55]

Following the publishing of the Preliminary Report on the E-Commerce Sector Inquiry, on 2 February 2017, the Commission launched three separate investigations into anti-competitive online sales practices, concerning consumer electronics, video games, and hotel accommodation.[56] These investigations aim to tackle the specific issues of retail price restrictions, geo-blocking, and discrimination on the basis of location.[57]

The investigation in the consumer electronics sector involves Asus, Denon & Marantz, Philips, and Pioneer who are suspected of having infringed the EU competition law rules by restricting the ability of online retailers to set their own prices for popular consumer electronics products such as household appliances, notebooks, and hi-fi products. Interestingly the Commission suspects that these price restrictions may be aggravated due to the use by many online retailers of pricing software that automatically adapts retail prices to those of leading competitors. As a result, the alleged behaviour may have had a broader impact on overall online prices for the consumer electronics products in question.

The second investigation concerns certain bilateral agreements concluded between Valve Corporation, owner of the Steam game distribution platform, and five video game publishers, Bandai Namco, Capcom, Focus Home, Koch Media, and ZeniMax. These agreements may contain geo-blocking clauses preventing consumers from purchasing digital content (PC video games) depending on their location or country of residence. The investigation focuses on whether the agreements in question require of have required the use of

54 Regulation 1/2003, note 45.

55 More information, including the full version of the commitments is available on the Commission's competition website, in the public case register, under case number AT.40153.

56 See Commission, Press Release, 'Antitrust: Commission Opens Three Investigations into Suspected Anticompetitive Practices in E-Commerce', IP/17/201, 2 February 2017.

57 More information on these investigations is available on the Commission's competition website, in the public case register: for the retail pricing agreements investigation, under the case numbers AT.40465 (*Asus*), AT.40469 (*Denton & Marantz*), AT.40181 (*Philips*), AT.40182 (*Pioneer*); for the video games investigation, under the case numbers AT.40413 (*Focus Home*), AT.40414 (*Koch Media*), AT.40420 (*ZeniMax*), AT.40422 (*Bandai Namco*), AT.40424 (*Capcom*); for the hotel pricing investigation, under the case number AT.40308.

'activation keys' for the purpose of geo-blocking. Activation keys can be used in order to restrict access to a purchased game to consumers in particular EU Member States. This practice could infringe the EU competition law rules as it may restrict parallel trade within the EU and prevent consumers from buying cheaper games available in other Member States.

In the third investigation, launched after complaints from consumers, the Commission is looking at agreements on hotel accommodation entered into between the largest European tour operators, Kuoni, REWE, Thomas Cook, and TUI, on the one hand, and Meliá Hotels, on the other. The Commission is investigating whether such agreements discriminate between customers on the basis of their location. The agreements under scrutiny may contain clauses that discriminate between consumers from different Member States by not showing the best prices to consumers in or from certain Member States. This practice may infringe EU competition law by preventing hotel rooms from being booked at prices available in other Member States simply because of nationality or place of residence.

Four months later, in June 2017, the Commission started formal antitrust investigations in four further cases. The first is an investigation into the distribution agreements and practices of clothing manufacturer and retailer Guess.[58] This investigation concerns allegations of geo-blocking practices. It aims to establish whether Guess's distribution agreements may restrict authorised retailers from selling online to consumers or retailers in other Member States. These agreements may also impede wholesalers from selling to retailers in other Member States.[59]

The other three investigations also involve possible geo-blocking. These are separate antitrust investigations focusing on whether certain licensing and distribution practices of Nike, Sanrio, and Universal Studios restrict traders from selling licensed merchandise cross-border and online within the EU. Nike, Sanrio, and Universal Studios license the rights for some of the world's well-known brands. Sport apparel manufacturer, Nike, is the licensor of rights for, among other brands, Football Club Barcelona's merchandise, Sanrio is the licensor of rights for the brand 'Hello Kitty', and Universal Studios is the licensor

58 See Commission, Press Release, 'Antitrust: Commission Opens Formal Investigation into Distribution Practices of Clothing Company Guess', IP/17/1549, 6 June 2017.

59 More information can be accessed on the Commission's competition website, in the public case register, under the case number AT.40428.

for the brands 'Minions' and 'Despicable Me'.[60] The Commission is concerned that consumers may have had less choice and paid higher prices for these merchandised products due to restrictions on cross-border and online sales.

These recent cases are a clear signal of the Commission's intensified focus on online distribution and related practices which may be damaging to competition.

A number of the above-mentioned investigations make clear that cracking down on geo-blocking is high on the Commission's agenda. In January 2014, the Commission started formal antitrust proceedings into certain provisions in licensing agreements entered into between six major Hollywood studios (NBCUniversal, Paramount Pictures, Sony Pictures, Twentieth Century Fox, Disney, and Warner Brothers) and the largest TV-broadcasters in the EU such as Sky UK, Canal Plus of France, Sky Italia, Sky Deutschland, and DTS of Spain. The focus of the investigation is on whether these provisions prevent broadcasters from providing their services across borders, for example by refusing potential subscribers from other Member States or blocking cross-border access to their services.[61] In 2015, the Commission sent a Statement of Objections to Sky UK, Disney, NBCUniversal, Paramount Pictures, Sony Pictures, Twentieth Century Fox, and Warner Brothers identifying certain geo-blocking provisions in the licensing agreements between Sky UK and these six film studios that, according to the Commission, may give rise to competition concerns. The Commission alleges that each of the six film studios and Sky UK have bilaterally agreed to put in place contractual restrictions which oblige Sky UK to block access to films to consumers outside the UK and Ireland through its online and satellite pay-TV services, grant absolute territorial exclusivity to Sky UK, and eliminate competition between broadcasters.[62] In April 2016, Paramount Pictures offered commitments to allay the Commission's competition concerns. These commitments were rendered legally binding by Commission Decision of 26 July 2016.[63] By accepting the commitments, the Commission ended its investigation of Paramount. The investigation into the other five film studios is still ongoing, with these companies still disputing the Commission's allegations.

60 More information on these investigations is available on the Commission's competition website, in the public case register, under the case numbers AT.40432 (*Sanrio*), AT.40433 (*Universal Studios*), and AT.40436 (*Nike*).

61 See Commission, Press Release, 'Antitrust: Commission Investigates Restrictions Affecting Cross-border Provision of Pay-TV Services', IP/14/15, 13 January 2014.

62 See Commission, Press Release, 'Antitrust: Commission Sends Statement of Objections on Cross-border Provision of Pay-TV Services Available in UK and Ireland', IP/15/5432, 23 July 2015.

63 See Commission, Press Release, 'Antitrust: Commission Accepts Commitments by Paramount on Cross-border Pay-TV Services', IP/16/2645, 26 July 2016. A full version of the commitments can be accessed on the Commission's competition website, in the public case register, under case number AT.40023.

In the meantime, the French pay-TV operator, Canal Plus, has brought an action before the General Court requesting the annulment of the Commission's Decision accepting the commitments offered by Paramount.[64]

As mentioned above, one of the concerns identified by the Commission in its DSM Strategy, is related to the increasing market power of a number of online platforms and the way in which they use this power. This has prompted the Commission to take action against digital platforms found by the Commission to have abused their market power. The three investigations into the practices of Google are prime examples.

The first concerns Google's comparison shopping service (*Google Search – Shopping*). On 27 June 2017, the Commission imposed on Google (and its parent company, Alphabet Inc.) a record fine of €2.42 billion for abuse of a dominant position in the market for general search engines by stifling competition in comparison shopping services. According to the Commission, Google systematically gave prominent place to its own comparison shopping service, thus demoting rival comparison shopping services in its search results.[65] This practice allowed Google's comparison shopping service to make significant gains in traffic at the expense of its rivals and to the detriment of consumers in the EU.[66] On 11 September 2017, Google brought an action for the annulment of the Commission Decision before the General Court.[67]

On 15 April 2015, the Commission opened a second formal antitrust investigation into the practices of Google. This investigation concerns the Android operating system and mobile applications. A Statement of Objections was sent to Google on 20 April 2016 in which the Commission expressed it preliminary view that Google has implemented a strategy on mobile devices in order to preserve and strengthen its dominant position in general internet search by imposing restrictions on Android device manufacturers and mobile network operators. The Commission alleges that Google requires manufacturers to pre-install Google Search and Google's Chrome browser and to set Google Search as default search service on their devices in return for a licence for certain Google proprietary apps. In addition, Google also prevents manufacturers from selling smart mobile devices running on competing operating systems based on the

64 Case T-873/16 *Groupe Canal + v Commission* [2017] ECLI:EU:T:2017:556.

65 More information on this case can be found on the Commission's competition website, in the public case register, under case number AT.39740.

66 See Commission, Press Release, 'Antitrust: Commission Fines Google €2.42 Billion for Abusing Dominance as Search Engine by Giving Illegal Advantage to Own Comparison Shopping Service', IP/17/1784, 27 June 2017.

67 Case T-612/17 *Google and Alphabet v Commission* [2017] OJ C 369/37.

Android open source code. Finally, the Commission suspects that Google is giving financial incentives to manufacturers and mobile network operators if they exclusively pre-install Google Search on their devices. According to the Commission, these practices may affect the ability of other mobile browsers to compete with Google Chrome and impede the development of operating systems based on the Android open source code and, thus, restrict the development of new apps and services, to the detriment of the consumer.[68] The investigation is still pending at present.[69]

On 14 July 2016, the Commission opened a third set of antitrust proceedings against Google. This investigation concerns Google's 'AdSense for Search' platform.[70] The Commission alleges that Google has abused its dominant position on the online search advertising market by artificially restricting the possibility for third-party websites to display search advertisements from its competitors. This investigation is at present also still pending.[71]

The number of investigations launched by the Commission into alleged anti-competitive practices in the digital world, and the variety of topics involved, suggests that more enforcement action is on the horizon. The outcome of these investigations should shed more light on the rules that operators in the digital world must follow.

4.2.2. Enforcement by the European Court of Justice (CJEU)

Not only the Commission, but also the CJEU, has a very important role to play in the interpretation and application of EU law. The fact that Google has brought an action, before the General Court, for the annulment of the Commission decision in the *Google Search – Shopping* case, demonstrates that the digital world has entered the hallowed halls of Luxembourg.

In 2017, the CJEU itself handed down two rulings which have profound consequences, not only for the parties to the cases, but also for the digital economy in general. Furthermore, on 30 January 2018, the Austrian Supreme

68 See Commission, Press Release, 'Antitrust: Commission Sends Statement of Objections to Google on Android Operating System and Applications', IP/16/1492, 20 April 2016.

69 More information on this investigation is available on the Commission's competition website, in the public case register, under case number AT.40099.

70 See Commission, Press Release, 'Antitrust: Commission Takes Further Steps in Investigations Alleging Google's Comparison Shopping and Advertising-Related Practices in Breach of EU Rules', IP/16/2532, 14 July 2016.

71 More information on this case is available on the Commission's competition website, in the public case register, under case number AT.40411.

Court put preliminary questions to the CJEU on the subject of hate speech. Below we briefly review these three cases.

One of the most controversial issues at the moment, in the context of online distribution, is whether and to what degree a supplier can prohibit its distributors from selling its products on online marketplaces, such as Amazon and eBay. This was precisely the issue that the CJEU had to deal with in the *Coty* case.[72]

In its ruling, handed down on 6 December 2017, the CJEU firstly confirmed its earlier case law[73] by stating that a selective distribution system for luxury goods which is designed primarily to preserve the luxury image of those products does not fall foul of Article 101(1) TFEU, provided that the three conditions set out in the 1977 *Metro* ruling[74] are met: (i) distributors are chosen on the basis of objective criteria of a qualitative nature, laid down in a uniform fashion for all potential distributors and are not applied in a discriminatory fashion; (ii) the characteristics of the product in question necessitate such a network in order to preserve the quality of the products concerned and ensure their proper use; (iii) the criteria laid down do not go beyond what is necessary (proportionality). Secondly, the CJEU decided that, within the context of a selective distribution network, a ban imposed on a distributor prohibiting it from selling the goods in question on third-party platforms or marketplaces discernible to the public also escapes the prohibition of Article 101(1) TFEU if the three *Metro* conditions are satisfied. The ruling further confirms that bans on the use of third-party platforms form neither a restriction on selling to particular customers nor a restriction on passive sales, and, therefore, do not amount to hardcore restrictions within the meaning of Article 4 of the Block Exemption Regulation on Vertical Agreements.[75] Furthermore, the CJEU found that, even if the German court found the agreements between Coty and its distributors to infringe Article 101(1) TFEU, these agreements would benefit from the Block Exemption Regulation on Vertical Agreements, since they do not restrict the territory into which a distributor may sell, nor do they prevent the distributor from selling to any particular customer group. The CJEU further observed that the ban imposed by Coty on its distributors does not amount to an absolute prohibition

72 Case C-230/16 *Coty Germany GmbH v Parfümerie Akzente GmbH* [2017] ECLI:EU:C:2017:941. This case is mentioned in some of the other contributions in this volume. It should, however, be noted that at the time that these contributions were completed (30 November 2017), the CJEU had not yet handed down its ruling. The present Chapter was written later than the other contributions and takes into account later developments.

73 See case 26/76 *Metro SB-Grossmärkte GmbH v Commission* [1977] ECLI:EU:C:1977:167.

74 Ibid, paras 20-21.

75 Commission Regulation 330/2010, note 52.

of all internet sales since consumers can purchase the goods in question via the website of authorised distributors.

The ruling of the CJEU is in line with the approach adopted by the Commission in its Final Report on the E-Commerce Sector Inquiry. In this Report, the Commission states that third-party platform bans do not necessarily amount to hardcore restrictions of competition within the meaning of Article 4 of the Block Exemption Regulation on Vertical Agreements because they do not, in general, amount to a *de facto* prohibition of sales via the internet, since alternative ways of selling online exist (i.e. on the distributor's own website). The Commission, however, notes that this does not mean that absolute bans on sales via the internet will in general be compatible with EU competition law.

The second case, *Uber Spain*,[76] also handed down in December 2017, raises questions with regard to the sharing or collaborative economy. The case at hand concerns a dispute between a professional organisation of taxi drivers in Barcelona, Élite Taxi, and the Spanish company Uber Spain SL which operates the UberPop service. This service brings potential passengers, using a smartphone equipped with the Uber app, into contact with unlicensed drivers who use their own vehicles to pick up passengers for low fares. Élite Taxi maintained that the use of the UberPop service amounted to unfair competition because neither Uber Spain nor the drivers of the vehicles have the licences required by the city of Barcelona for the provision of taxi services.[77]

The main question that the CJEU had to decide in this case was how the activities of Uber should be classified under EU law. Should these activities be classified as electronic intermediary services falling under the E-Commerce Directive[78] or as transport services? The answer to this question has important ramifications for ability of the Member States to regulate the activities of Uber.

76 Case C-434/15 *Asociación Profesional Élite Taxi v Uber Systems Spain SL* [2017] ECLI:EU:C:2017:981. M. Inglese discusses the *Uber* case in Chapter 8. It should be mentioned though, that Chapters 2 to 10 of this book were concluded as of 30 November 2017. The judgment in the *Uber* case was not yet issued at that time. Therefore, Inglese focuses on the AG's Opinion in this case. The introductory Chapter nevertheless, has been written after 30 November 2017 and can therefore take into account some developments which occurred after the aforementioned date.

77 Two other preliminary references have also reached the CJEU concerning the activities of Uber. In case C-526/15 *Uber Belgium BVBA v Taxi Radio Bruxellois NV* [2016] ECLI:EU:C:2016:830, the request for a preliminary ruling was declared inadmissible. The second case, Case C-320/16 *Criminal proceedings against Uber France SAS* is still pending. On 4 July 2017 Advocate General Szpunar delivered his Opinion on this case, ECLI:EU:C:2017:511.

78 Directive 2000/31/EC of the European Parliament and of the Council of 8 June 2000 on Certain Legal Aspects of Information Society Services, in Particular Electronic Commerce, in the Internal Market (Directive on Electronic Commerce), [2000] OJ L 178/1.

In summary, the CJEU decided that Uber provides a transport service rather an information society service. It found that the service provided by Uber is more than a mere intermediation service consisting in connecting, by means of a smartphone app, potential passengers and drivers. Moreover, the provider of the intermediation service (Uber) simultaneously offers urban transport services. The CJEU observes in that regard that the Uber app is indispensable both for the drivers and the persons wishing to make an urban journey. Another important factor, taken into consideration by the CJEU, is the fact that Uber exercises decisive influence over the conditions under which the drivers provide their services. This leads the CJEU to conclude that the intermediation service must be considered to be an integral part of an overall service, the main component of which is a transport service and, thus, must be classified as a service in the field of transport, not as an information society service.[79]

The ruling of the CJEU makes clear that information society services that form an integral part of an overall service the main component of which consists of a service which is not an information society service, will not be classified as information society services. The fact that the CJEU qualifies the services provided by Uber as services in the field of transport means that Member States are free to regulate the conditions under which such services are provided, for example by requiring licences or authorisations.

It is difficult to say what consequences the ruling of the CJEU will have for other companies operating within the framework of the collaborative economy, such as Airbnb, whose business models differ from that of Uber in a number of important respects.

In the third case, *Glawischnig-Piesczek*,[80] the Austrian Supreme Court put three preliminary questions to the CJEU on the subject of hate speech. The case concerns the posting, by a Facebook user with a fake alias, on Facebook of an image of the Austrian green politician, Dr. Eva Glawischnig-Pieszcek, accompanied by comments of an offensive nature. The questions put to the

79 Case C-434/15, note 76, paras 37-40.

80 Case C-18/18 *Glawischnig-Piesczek*, n.y.r.

CJEU concern the scope of Article 15 of the E-Commerce Directive[81] in the context of an order from a national court obliging a host provider to remove illegal content from its website. Tackling hate speech and illegal content is one of the issues that the Commission intends to address within the framework of the DSM Strategy. It is to be hoped that the ruling of the CJEU in this case will lay down clear standards of review to be applied in cases of hate speech.

5. The Expanding Reach of the Freedom to Provide Services and the Withering Away of the Free Movement of Goods

As mentioned above, digital markets raise interesting, but also difficult challenges, for enforcers and legislators alike. The question then is whether the law can keep up with the developments in this digital era? We will focus in this Section solely on one area of EU law, namely the free movement of goods. Traditional retail stores face increasingly more competition from digital stores. As it will be explained below, this, *inter alia*, appears to diminish the scope of the free movement of goods substantially. Therefore, the question is whether the free movement of goods is 'digital era-proof'.

In the *Visser Vastgoed* case, the CJEU was asked by the Dutch Council of State to make a delimitation between the free movement of goods and the free movement of services.[82] AG Szpunar suggested in his Opinion that the internet has reduced the scope of the free movement of goods. Brick-and-mortar stores have to compete with internet stores[83] by providing services, which means that "retail [does] not only consists of merely selling a product, but also of advising, counselling and offering follow-up services."[84]

81 The text of Article 15 of the E-Commerce Directive reads:
"1. Member States shall not impose a general obligation on providers, when providing the services covered by Articles 12, 13 and 14, to monitor the information which they transmit or store, nor a general obligation actively to seek facts or circumstances indicating illegal activity.
2. Member States may establish obligations for information society service providers promptly to inform the competent public authorities of alleged illegal activities undertaken or information provided by recipients of their service or obligations to communicate to the competent authorities, at their request, information enabling the identification of recipients of their service with whom they have storage agreements."

82 Strictly speaking, the national court wonders whether retail services fall within the scope of the Services Directive. See the Opinion of AG Szpunar in Joined cases C-360/15 and C-31/16 *X BV and Visser Vastgoed Beleggingen BV v Raad van de gemeente Appingedam* [2018] ECLI:EU:C:2017:397, paras 30 and 63.

83 Noteworthy to mention is para 18 of the preamble of Directive 2000/31/EC, note 78, which provides that information society *services* can, in particular, consist of selling goods online. It would be strange to regard the offline sale of goods not as a service, in particular when brick-and-mortar stores have to compete more fiercely, as AG Szpunar mentions, with online stores.

84 Opinion of AG Szpunar in Joined cases C-360/15 and C-31/16, note 82, para 102.

This approach would greatly reduce the scope of the free movement of goods. The Dutch Council of State suggested, in its referral to the Court, a different approach. In the past, the Council of State already ruled that retail activities do not fall within the scope of the free movement of services, but within the scope of the free movement of goods.[85] Nevertheless, the referring court does also mention that contradicting indications exist as to whether retail should be regarded as the selling of goods or the provision of a service.[86]

In the *Uber* case,[87] also discussed in the previous Section, the CJEU used a traditional way of dealing with the challenges of the digital era.[88] The Court was asked, *inter alia*, to classify the service which Uber provides either as an information society service or a transport service. Uber provided, according to the Court, a transport service since it did not only provide an intermediation service, but it also had, in short, control over the "non-professional" drivers.[89] Interestingly, the Court mentioned in paragraph 41 that: "[t]hat classification is indeed confirmed by the case-law of the Court, according to which the concept of 'services in the field of transport' includes not only transport services in themselves but also any service inherently linked to any physical act of moving persons or goods from one place to another by means of transport (see, to that effect, judgment of 15 October 2015, *Grupo Itevelesa and Others*, C-168/14, EU:C:2015:685, paragraphs 45 and 46, and Opinion 2/15 *(Free Trade Agreement with Singapore)* of 16 May 2017, EU:C:2017:376, paragraph 61)."

The *Grupo Itevelesa* case, which is referred to by the Court, dealt with the traditional economy, whereas the Opinion on the Singapore Trade Agreement merely refers back to *Grupo Itevelesa* on this aspect. It therefore seems that the Court applies case law on the traditional economy to the digital market and thus tries to fit digital markets into a traditional straitjacket.

In *Visser Vastgoed* the Court seems to take into account the developments which the digital era has brought about. The Court ruled that "the activity of retail trade in goods such as shoes and clothing falls within the scope of the concept of 'service' within the meaning of Article 4(1) of that directive".[90] Previous case law in which the CJEU made a distinction between the free movement of services and other free movement provisions in the Treaty itself cannot be used

85 *Visser Vastgoed Beleggingen BV v Raad van de gemeente Appingedam* [2016] ECLI:NL:RVS:2016:75, paras 15 and 15.3.

86 Ibid, para 16.5.

87 Case 434/15, note 76.

88 M. Inglese discusses the *Uber* case in Chapter 8. See also remark under note 76 above.

89 See for the precise deliberations of the Court, paras 37-40.

90 Joined cases C-360/15 and C-31/16 *X BV and Visser Vastgoed Beleggingen BV v Raad van de gemeente Appingedam* [2018] ECLI:EU:C:2018:44, para 91.

to determine the scope of the Services Directive.[91] Retail activities not falling under the Services Directive[92] are scarce, if not non-existent. Retail activities are thus in general excluded from the scope of the free movement of goods. The Court, in line with the Opinion of AG Szpunar, also ruled that "retail trade in goods, [...] nowadays encompasses not only the legal act of sale / purchase but also an increasing range of activities or services that are closely inter-related and that are intended to induce a consumer to conclude that sale / purchase with one economic operator rather than another, to provide advice and assistance to the consumer at the time of that sale / purchase or to provide after-sales services".[93]

The scope of the free movement of goods is thus diminished by the developments in digital markets. Is this a welcome development? In general, one might say that all the free movement provisions prevent discrimination and all other market access restrictions. In the *Federspiel* case, the Court could not determine whether Sabine Federspiel was a self-employed doctor or an employee of a hospital and therefore treated the free movement of workers and the freedom of establishment on a par, thus precluding any national measure which is capable of hindering or rendering less attractive the exercise of the fundamental freedoms.[94] Accordingly, the Court referred to all Treaty provisions on the free movement of *persons*. One could argue, that the same reasoning applies to the free movement of goods as well. There are nonetheless some differences between the free movement of goods and the other fundamental freedoms.[95]

A notable difference in this respect is the so-called *Keck* rule which merely applies to the free movement of goods.[96] Would this be a reason though not to catch up with the developments in the digital era? Legislators and enforcers can currently rely on the *Keck* rule to remove selling arrangements from the scope of the free movement of goods. This would no longer be possible if we were to regard the selling of goods via brick-and-mortar stores as the provision of a service.

91 Ibid, para 92.

92 Directive 2006/123 of the European Parliament and of the Council of 12 December 2006 on Services in the Internal Market, [2006] OJ L 376/36.

93 Joined cases C-360/15 and C-31/16, note 90, para 95.

94 Case C-419/16 *Sabine Simma Federspiel v Provincia autonoma di Bolzano and Equitalia Nord SpA* [2017] ECLI:EU:C:2017:997, paras 34-35.

95 The difference in the degree of harmonisation is noteworthy: e.g. the sector overarching harmonisation by the Services Directive for the freedom to provide services and the freedom of establishment versus the casuistic harmonisation measures under the free movement of goods.

96 See J. Stuyck, 'Is Keck Still Alive and Kicking?', (2012) Revue Européene de Droit de la Consommation (2). Stucyk mentions that, even though the Court did not explicitly endorse the use of the *Keck* doctrine in other freedoms, it did nonetheless sometimes use in "some judgments on free provisions of services [a] language that is somewhat reminiscent of *Keck*".

Over time however, the significance of *Keck* has diminished. One might even argue that *Keck* has been put into a coma, due to the internet, amongst others. We can distinguish four general categories of selling arrangements, namely: limiting the channels of trade, advertising limitations, price limitations, and limitations on trading hours.[97] The first two have become obsolete due to the internet. In the pre-internet era it was logical to sell goods through a physical store, but this is no longer the only way to sell goods. Limiting the sale of goods by requiring a physical store would make it more difficult for foreign traders to sell goods in another Member State and would thus amount to a discriminatory selling arrangement.[98] The same reasoning could be applied to limiting advertising, since online stores rely heavily on advertisements to penetrate a market.[99]

Only two categories of selling arrangements, and therefore the *Keck* rule, are not directly influenced by the emergence of the internet: price limitations and limitations on trading hours. A ban on minimum prices though, might still not benefit from the *Keck* rule, since it can be discriminatory to traders which only sell their products through the internet. Online stores incur, in general, less costs than brick-and-mortar stores. An online store does not need e.g. a store in a shopping street, which means that it incurs less costs. Lower costs in their turn can ensure that prices can be kept lower by online stores than the prices in a brick-and-mortar store. It is, in line with the case law discussed above, likely that foreign traders use an online store to sell their goods in another Member State. If a Member State were to put a ban on minimum prices this would disturb the competitive advantage which a foreign trader may have over its competitors with brick-and-mortar stores.

97 E. Spaventa, 'Leaving Keck Behind? The Free Movement of Goods after the Rulings in Commission v Italy and Mickelsson and Roos', (2009) 35 European Law Review (6), incorporated an outline of all post-*Keck* case law on selling arrangements up until 2009. Our division in four categories is loosely based on this outline.

98 Case C-322/01 *Deutscher Apothekerverband eV v o8oo DocMorris NV and Jacques Waterval* [2003] ECLI:EU:C:2003:664, paras 74-75. The Court refers here also to the "emergence of the internet as a method of cross-border sales", as a factor which should be taken into account to determine whether a selling arrangement is discriminatory.

99 The Court did not always find this to be problematic, as long as the ban was not a complete advertising ban. See e.g. case C-412/93 *Société d'importation Edouard Leclerc-Siplec v TF1 Publicité SA en M6 Publicité SA* [1995] ECLI:EU:C:1995:26, para 22. In Joined cases C-34/95 to C-36/95 *Konsumentombudsmannen (KO) v De Agostini (Svenska) Förlag AB and TV-Shop i Sverige AB* [1997] ECLI:EU:C:1997:344, paras 42-47, the Court found strong indications that the total advertisement ban was discriminatory, but it left it up to the national court to determine whether this was truly the case. Just as with the *Deutsche Apothekerverband* case, the Court could nowadays take into account the "emergence of the internet" to regard all advertisement bans as discriminatory selling arrangements.

Even if the last two categories are not affected by the digital era, it remains to be seen whether the *Keck* rule can still be relied upon to remove these from the scope of Article 34 TFEU. In both the *Scotch Whisky Association* and the *Deutsche Parkinson Vereinigung* cases, the Court did not apply the *Keck* analysis and ruled that the minimum price requirement and the channel of sale limitation, respectively, were restrictions to the access to the market. AG Bot advised the Court to take this approach in the *Scotch Whisky Association*.[100] By contrast, in *Deutsche Parkinson Vereinigung*, AG Szpunar mentioned that "the instances in which the Court has, in effect, applied the *Keck* exception are rare and, moreover, the Court has never positively defined what exactly it understands by a 'selling arrangement'. Since they do exist however, *Keck* is still alive and must be examined in the case at issue."[101] Strangely, the Court did not follow this approach. The Court applied its market access test. By contrast, the Court actually did apply *Keck* in the similar 2003 *DocMorris* case,[102] to which the Court also referred in *Deutsche Parkinson Vereiniging*.[103] Overall, one gets the impression that the CJEU is starting to abandon *Keck*, both due to the developments which the digital era has brought about and by applying the overarching market access test.

Concluding, in our opinion treating the sale of goods through brick-and-mortar stores as the provision of a service is not ground-breaking. It would indeed mean that the scope of the free movement of goods is limited, but the convergence between the free movement provisions prevents large problems. The law as it stands does not need any adaptation, but the way in which we interpret it will be changed by the emergence of digital markets.

6. Digital Markets: (Sector) Regulation or Free Market?

The authors who contributed to this book also try to establish whether the law as it stands can survive the challenges of the digital era. We can see a common thread throughout these contributions, namely: do we need regulation, or is the market, and thus the legal framework as it currently stands, sufficient to tackle the challenges of the digital era? From a competition law perspective, we could argue that the market will correct itself when problems occur. By contrast, one

100 Opinion of AG Bot in case C-333/14 *Scotch Whisky Association and others v The Lord Advocate and The Advocate General for Scotland* [2015] ECLI:EU:C:2015:527, paras 58-60.

101 Opinion of AG Szpunar in case C-148/15 *Deutsche Parkinson Vereinigung eV v Zentrale zur Bekämpfung unlauteren Wettbewerbs eV* [2016] ECLI:EU:C:2016:394, para 23.

102 Case C-322/01, note 98, para 68.

103 Case C-148/15 *Deutsche Parkinson Vereinigung eV v Zentrale zur Bekämpfung unlauteren Wettbewerbs eV* [2016] ECLI:EU:C:2016:776, para 23.

could argue that this is not sufficient and that we thus need regulatory action. As Nagy (Chapter 7) mentions in his contribution to this book, "the existence of workable competition may exclude the extension of universal service regulation to industries that would otherwise call for state intervention and to services that would qualify as fundamental."

The use of algorithms and the competition law problems which they might cause are discussed in both the contributions of Vedder (Chapter 3) and Blockx (Chapter 4). Algorithms can easily obtain price information which is made available on the internet. This information can be used by undertakings to adapt their pricing policies accordingly. An extra step might be taken when algorithms start 'colluding'. It might be strange to accuse algorithms of such a thing, since they are merely programs created by natural persons. In his contribution, Blockx focuses, *inter alia*, on the accountability of undertakings for the behaviour of algorithms which they own or which they merely use. Vedder focuses more on the collusion aspect. The case law of the CJEU makes it difficult for programmers to establish 'rules' according to which their algorithms should behave. Nevertheless, both authors agree that competition law as it stands can tackle problems which the digital era brings about, although they differ on the desirability of the current approach.

In our opinion however, the first step is putting sensitive information online. Without sensitive information, algorithms cannot create cartels. Acting upon publicly available non-sensitive information, such as the current pricing policy of an undertaking, cannot lead to a cartel. Parallel behaviour as such is not prohibited by Article 101 TFEU. As the Court of Justice stated in *Wood Pulp*: "[i]t must be noted that parallel conduct cannot be regarded as furnishing proof of concertation unless concertation constitutes the only plausible explanation for such conduct. It is necessary to bear in mind that, although Article [101 TFEU] prohibits any form of collusion which distorts competition, it does not deprive economic operators of the right to adapt themselves intelligently to the existing and anticipated conduct of their competitors [...]."[104]

Undertakings can adapt themselves intelligently on the market, but they may not knowingly substitute the risks of competition by colluding.[105] In *T-Mobile*, the Court also added that Article 101 TFEU "preclude[s] any direct or indirect contact between [...] operators by which an undertaking may influence the

104 Joined cases C-89/85, C-104/85, C-114/85, C-116/85, C-117/85, C-125/85 to C-129/85 *A. Ahlström Osakeyhtiö and others v Commission* [1993] ECLI:EU:1993:120, para 71.

105 Case C-8/08 *T-Mobile Netherlands BV, KPN Mobile NV, Orange Nederland NV and Vodafone Libertel NV v Raad van bestuur van de Nederlandse Mededingingsautoriteit* [2009] ECLI:EU:C:2009:343, para 26.

conduct on the market of its actual or potential competitors or disclose to them its decisions or intentions concerning its own conduct on the market where the object or effect of such contact is to create conditions of competition which do not correspond to the normal conditions of the market in question."[106] This case law also applies to digital markets. To catch behaviour which infringes Article 101 TFEU, we first need to have an undertaking placing sensitive information online. We can compare this to the traditional economy. Petrol stations which adapt their prices in accordance with the price information on billboards at other petrol stations do not infringe the competition rules. Were they to publish their pricing information for the coming months, this would be different. In order to prevent the problems perceived by Vedder and Blockx, it might just mean that undertakings should be more careful what information they place online. Driving past petrol stations to see the prices is obviously more difficult than merely using an algorithm to find pricing information on the 'digital highway', which increases the potential for cartels. However, it does not give a waiver to undertakings to be careless with the information they make publicly available.

As mentioned above, both Vedder and Blockx agree that the law as it stands can catch anti-competitive behaviour by algorithms. Schrepel (Chapter 5) brings up a different problem for competition law. Do we need a new type of abuse (under Article 102 TFEU), which he calls 'predatory innovation'? In his contribution, Schrepel argues that competition law as it currently stands is not suitable to catch certain behaviour by undertakings, which leads to predatory innovation. One might wonder whether the essential facilities doctrine, as developed by the Court in its refusal to supply cases, can provide a different solution. The *Microsoft* case[107] could perhaps be used to argue that undertakings should not only be given access to interoperability information, but also access to digital platforms.

The essential facilities doctrine and its interaction with the Database Directive are discussed by Koenig (Chapter 9).[108] He argues that regulation might be preferred over the free market system. Regulatory law can be "better [...] tailored around individual circumstances". The free market system, and the limits imposed upon undertakings by competition law, is not sufficient to ensure a proper balance between access to data and protection of data in digital markets.

106 Ibid, para 33.
107 Case T-201/04 *Microsoft Corp. v Commission* [2007] ECLI:EU:T:2007:289.
108 Directive 96/9/EC of the European Parliament and of the Council of 11 March 1996 on the Legal Protection of Databases, [1996] OJ L 77/20.

O'Keeffe and Noé (Chapter 2) discuss in their contribution, *inter alia*, Across Platform Parity Agreements (APPA's). In the Netherlands, the question arose whether Thuisbezorgd.nl, a platform which brings together restaurants and consumers for home delivery meals, might infringe competition law by using same price guarantees in its contracts. The Dutch Competition Authority (ACM) concluded that small APPA's, where the same price agreement only applies to the platform and the website / menu of the restaurant itself, do not lead to competition law problems. Broad APPA's, where the agreements are extended to all platforms on which a restaurant is active, do however lead to competition law issues. O'Keeffe and Noé concluded that ACM did not find any competition problems in the Netherlands with regard to the use of small APPA's by Thuisbezorgd.nl. In the future, this might change, in our opinion. If multiple platforms were to use small APPA's with same price guarantees, then this would lead implicitly to a broad APPA, since restaurants have to use the same price for each platform on which they are active. Whether Thuisbezorgd.nl is completely in the clear might thus depend on the behaviour of its competitors.

ACM is, as O'Keeffe and Noé also mention, an authority which does not only enforce competition law, it also has powers to enforce regulatory rules in other areas.[109] Such an integrated competition law authority is also a solution which Van Cleynenbreugel (Chapter 6) envisions with the development of the DSM agenda in the EU. Van Cleynenbreugel mentions in his contribution the complimentary function which the rules under the DSM agenda may have for the enforcement of EU competition law. Regulatory measures taken on the basis of the DSM agenda are needed to supplement competition law enforcement. This can lead to enforcement problems in one Member State, but also between Member States. One solution which Van Cleynenbreugel proposes is to create ACM-like integrated authorities which can enforce both the competition rules and the rules created for the DSM.

Inglese (Chapter 8) also sees a role for regulatory action. He focuses on the collaborative economy in his contribution. The approach suggested by AG Szpunar in the *Uber* case, to regard the service provided by Uber as a transport service, can lead to difficulties with regulating the collaborative economy. The harmonisation clause in Article 114 TFEU cannot be used in such a case, according to Inglese. Regulating the collaborative economy would thus depend on the nature of the platform itself. In December 2017, the Court of Justice issued its ruling in the *Uber* case and decided to follow the AG on this point. The problems

109 ACM can also enforce certain consumer protection rules and it has the competence to create and enforce rules in the following sectors: telecommunication, transportation, post-delivery and energy.

perceived by Inglese might therefore occur. On the other hand, it is debatable whether Uber and e.g. Airbnb are the same type of platform. Looijestijn-Clearie mentions in a blogpost: "Airbnb does not exercise control over the persons renting out the rooms advertised on its site. Also on its website, Airbnb goes to great lengths to emphasise that it does not set the prices charged. The prices and conditions are set by the persons renting out the rooms. On the other hand, like the services supplied by Uber, those provided by Airbnb exist solely because of the platform".[110] It therefore remains to be seen whether Uber is, as a platform, just the odd one out or not.

Nagy (Chapter 7) focuses on the concept of 'universal service'. He establishes the parameters for such a service and determines which services in the electronic communications market can be regarded as universal services. Workable competition excludes the need for the regulation of universal services. Nevertheless, due to the digital era in which we live, universal services might eventually come into existence. Broadband, for example, might be regarded as a new universal service. Perhaps in the future we might become so dependent on certain platforms that they in themselves would amount to universal services, to which everyone should have access. We would then have moved from the network (broadband) as a universal service to the platform (a service on the network) as a universal service.

With this book, we hope to provide a contribution to the discussions on the legal developments brought about by the emergence of digital markets.

110 A. Looijestijn-Clearie, 'It Looks Like a Duck, Walks Like a Duck, Quacks Like a Duck. But Is It a Taxi? A Commentary on the Opinion of Advocate General Szpunar in Case C-434/15 – Asociación Profesional Elite Taxi v Uber Systems Spain SL', (2017) Radboud Economic Law Blog, available at: www.ru.nl/law/research/radboud-economic-law-conference/radboud-economic-law-blog/2017/looks-like-duck-walks-like-duck-quacks-like-duck/ (last accessed: 23 January 2018).

Chapter 2:

Digital Markets in the EU: The Importance of the Footloose Consumer

*Siún O'Keeffe and Bart Noé**

1. Introduction

The scale and speed at which businesses and consumers can process information today is unprecedented. The frequency, pace, and impact of disruptive innovation and growth of market power can overwhelm consumers and business in digital markets. Not only consumer and competition law enforcement are affected of course. The impact of e-commerce is felt throughout society: shops disappearing from high streets, the shift from traditional TV to online video, and the impact of mass AirBnB tourism on some neighbourhoods in popular cities are examples of effects felt outside the consumer and competition domain.[1] However, as the online platforms enabling these changes can grow very large very quickly, the natural reflex to look at consumer and competition authorities to come to the rescue is quite understandable. The question then is, whether that reflex is justified. To what degree can and should these effects be countered by a competition and or consumer authority's interventions?

With the rise of the digital economy, issues such as information asymmetry, network effects, 'footloose' consumer behaviour and free-riding may take on a different level of significance. Compared to past decades, when most of the current (European) legislation was adopted, this raises questions regarding effective enforcement. A lot of study has been devoted to the way internet shapes business models and consumer patterns of behaviour. A vast body of literature exists that describes the potential and sometimes ambiguous effects

* The authors work as strategy advisors at Authority for Consumers and Markets (ACM). The views expressed are personal and are not to be attributed to ACM. We would like to thank Anne-Jel Hoelen and Lonneke van Hooren for their helpful comments.

1 See 'Human Rights in the Robot Age', (Rathenau Instituut, 2017), available at: www.rathenau.nl/en/publication/human-rights-robot-age-challenges-arising-use-robotics-artificial-intelligence-and (last accessed: 1 June 2017). See also R. Mulder, 'Nieuwe online monopolies vragen wel degelijk om ingrijpen van overheid', Financieele Dagblad, (Amsterdam, 13 June 2017).

of increased transparency for traders with regard to prices, as well as a lack of transparency for consumers regarding information and their rights, lower search costs and network effects.[2]

The Netherlands Authority for Consumers and Markets is a multifunctional authority, combining consumer protection powers, competition enforcement and telecommunications and energy regulation. ACM has placed the improvement of consumer welfare at the heart of its strategy. The authority addresses digital market issues, regardless of whether they are labelled as competition, consumer, or regulatory issues. ACM seeks the most effective solution for the problems it finds on the market. Digital markets in the EU are generally regarded as welfare-enhancing.[3] ACM's aim is to retain these positive effects and be vigilant on solving the problems that cause harm to consumers.

In this Chapter, we set out ACM's multifunctional approach to digital markets. In the first Section, we talk about the online consumer and the benefits and challenges he or she faces. In the second Section, we explain some examples of ACM activities on online markets. This Section focuses particularly on e-commerce and on platforms, and why it is important to monitor their development. The third Section approaches some consumer protection issues online and we explore some of the challenges that authorities face in empowering consumers to play a well-informed role in the online free market. Finally, we explore some of the novel(ish) issues that EU authorities encounter in the digital world.

2. The Online Consumer

Every two years, ACM sets out a strategic agenda of prioritised themes, and the theme 'the online consumer' has been a main focus for ACM both in the 2014-2015 agenda, and also in the current 2016-2017 agenda.[4] ACM conducted online consultations on both agendas.

Large numbers of European citizens are active online.[5] People shop online, they are active on social media, they play online games, and they watch videos and shows online. This creates opportunities, but also risks. The opportunities include

2 See for example 'Vertical Restraints for Online Sales', (OECD, 2013), available at: www.oecd.org/competition/VerticalRestraintsForOnlineSales2013.pdf (last accessed: 27 May 2017).

3 As recognized by the European Commission in its Digital Single Market Initiative, see https://ec.europa.eu/digital-single-market/en (last accessed: 27 May 2017).

4 See ACM's agendas, available at: www.acm.nl/en/about-acm/mission-vision-strategy/our-agendas/ (last accessed: 27 May 2017).

5 Internet usage in the European Union is estimated at 80% of the population. See 'Internet Usage in the EU-2016', available at: www.internetworldstats.com/stats9.htm (last accessed: 1 June 2017).

new products and services, more choice and information at great convenience, and to a certain extent, increased price competition. Different people mean different things when they talk about digital platforms but in essence such platforms are multi-sided online entities that allow a variety of users and a variety of services to interact and produce value. In that sense, platforms are really about matching buyers and sellers. Generally, once access to the platform has been achieved, the user has access to a lot of information and actors, at very low cost. This means that platforms tend to generate economies of scope. In that sense, online platforms can be a super-efficient method of linking supply with demand. They bring together large groups of suppliers and consumers, they have low access barriers, great scalability, and allow the speedy update of information.

Successful as they may be, there are some risks associated with platforms. Consumers often need to share personal information in order to gain access to free online services. Many feel that although the internet should actually be leading to more choice, online sales seem to be hindered by some producers, and some products seem to be sold at the same price in all online stores. Risks of internet use include, that citizens' personal details could be abused by the companies that run apps and websites, the unforeseen costs of mobile internet, hidden price fixing and limited competition or online stores that do not comply with consumer protection regulations.

ACM aims for consumers to benefit from online developments, to be able to surf freely and have the opportunity to decide for themselves what happens to their personal data. ACM and consumers each have important roles in ensuring the achievement of this aim. Discussions on targeted advertisements and personalization are often held solely within the context of privacy and protection of personal data. However, advertising and the ability to distinguish between specific buyer groups are also relevant to consumer choice. ACM keeps a close watch on the development of online sales channels and is attentive to anti-competitive risks that could impede the opportunities and options of businesses and consumers. While consumers increasingly see privacy as an important topic, they do not always show this concern in their behaviour. To address this so-called privacy paradox, ACM adjusted its consumer-education efforts to ensure that such inaction does not result from a lack of information.[6]

Both industry representatives and academics have indicated in our consultations, that when using mobile-platform operators, app-providers and advertisers must

6 See for example www.acm.nl/en/publications/publication/16416/ACM-calls-on-consumers-to-protect-their-online-privacy (last accessed: 1 October 2017).

abide by the conditions of the powerful operators of these platforms, thereby making it difficult to comply with, for example, the Dutch Cookie rules.[7] ACM assesses whether companies strengthen their potentially dominant positions on the internet by using personal information of users, and prevent new firms from offering their services online. These are some of the reasons for a closer examination of online markets and the business models on which they are based. Finally, ACM keeps a close watch on the experiences consumers have as regards their consumer rights with respect to online commercial communication and purchases, such as information obligations, rights to warranty, delivery and payment problems and the right to return goods.

3. Competition Issues on Online Markets

ACM's competition work of the past years on digital markets can be placed in two broad categories of potential issues:

1. Regarding e-commerce and online distribution, ACM's Strategy on (Online) Vertical Restraints[8] highlights ACM's enforcement priorities. These have been applied in several preliminary investigations and notably in the Netherlands' submission to the European Court of Justice in the *Coty* case.[9]

2. Regarding online platforms, ACM has explored the benefits and harm of across-platform parity agreements (APPA's), in its work on the Online Hotel Booking monitor,[10] and the published preliminary investigation decision in *Thuisbezorgd*.[11] In 2017 ACM published a market study into Online Video Streaming Platforms.[12]

7 See for example www.acm.nl/sites/default/files/old_publication/publicaties/11917_veelgestelde-vragen-cookiebepaling-oktober-2016-engels-new.pdf (last accessed: 1 October 2017).

8 See 'ACM's Strategy and Enforcement Priorities with regard to Vertical Agreements', (ACM, 20 April 2015), available at: www.acm.nl/en/publications/publication/14226/ACMs-strategy-and-enforcement-priorities-with-regard-to-vertical-agreements/ (last accessed: 27 May 2017).

9 See case C-230/16 *Coty Germany GmbH v Parfümerie Akzente GmbH* [2017] ECLI:EU:C:2017:603, Opinion of AG Wahl.

10 Report on the Monitoring Exercise Carried Out in the Online Hotel Booking Sector by EU Competition Authorities in 2016, (Belgian, Czech, French, German, Hungarian, Irish, Italian, Dutch, Swedish and UK NCAs and DG Comp, 6 April 2017), available at: http://ec.europa.eu/competition/ecn/index_en.html (last accessed: 26 May 2017).

11 See Press Release, (21 December 2016), and Case number 15.1073.53, Decision of the Netherlands Authority for Consumers and Markets in response to an application for a decision as referred to in Section 56, para 1, of the Dutch Competition Act, available at: https://www.acm.nl/en/publications/publication/16836/Delivery-and-takeout-options-for-consumers-and-restaurants/ (last accessed: 27 May 2017).

12 See 'A Closer Look at Online Video Platforms', (22 August 2017), available at: www.acm.nl/en/publications/publication/16342/Taking-a-closer-look-at-online-video-platforms/ (last accessed: 1 October 2017).

3.1. E-Commerce and Online Distribution[13]

The internet has revolutionized the way consumers search for and compare goods and products when shopping. A good example is the development of personalized shopping comparison applications for mobile phones. With such an app, consumers can, while out shopping, scan a product's barcode and get an instant overview of the price of the product in competing shops. On the basis of the results, consumers can decide where to buy. They can purchase in the brick-and-mortar shop, or use the information gathered to negotiate better terms with the sales-assistant. Alternatively, they can immediately purchase at an online competitor through the app, and the goods might even be shipped before the consumer leaves the premises.

These types of personalised shopping comparison applications allow consumers to gain bargaining power. This is essentially positive in terms of encouraging competition. However, there are consequences for producers and distributors. With today's technology, high smartphone penetration and ubiquitous broadband connections, it is extremely easy for competing online shops to lure consumers away with even a slightly lower price. Consumers are becoming footloose, instantly and on a large scale. This is obviously to the benefit of consumers, but there might be a negative dynamic effect / long term downside to being footloose, as there is a potentially negative impact on investments. The possibilities for competing retailers to free-ride on shop and branding investments by others are growing at an unprecedented pace too. To what degree will retailers be prepared to invest in services for products that require pre-sales services? Will there be a willingness to invest in the luxurious shop experience that many consumers value for luxury products?

Business may respond in different ways. Firstly, producers and platforms can try to reduce the benefits of free-riding, by introducing restrictive clauses in their vertical agreements with retailers to limit intra-brand competition, so that free-riding becomes less attractive. This is illustrated here with ACM's work on developing an Enforcement and Prioritisation strategy for vertical agreements. An additional illustration is provided in the explanation the ACM set out in the Netherlands' submission in the *Coty* case. A second possible business response is to increase price discrimination, which we discuss below in Section 5.2.

13 See also C. Fonteijn, 'Multichannel Distribution and the Impact of "Footloose" Consumers', (2016) 7 Journal of European Competition Law and Practice (4), 241.

3.1.1. Vertical Agreements Online

The increased use of restrictive agreements by platforms, producers, and retailers is a widely observed phenomenon in the online world.[14] These agreements, often vertical restrictions in nature, can bring efficiencies to distribution chains, but at the same time are a potential source of foreclosure on online markets. The potential benefits of vertical restrictions have been well described.[15] For example, they are an instrument to avoid double marginalisation or prevent free-riding on investments by competing retailers. They can also be a way to avoid strong price competition. The question for enforcers is, are the relevant agreements a business response aimed at legitimately protecting investments that benefit consumers, or should they be seen as a shield erected against strong price competition?

The legal and economic framework for assessing online platforms is evolving as the market evolves. The European Commission's E-Commerce Sector Inquiry[16] provides us with valuable data and insights into what makes markets tick. One issue that stands out in the Inquiry is the divergence between the competition parameters which manufacturers claim to be important, namely quality and brand image, and the competition parameter which is most important for the retailers, which is price.[17] This is interesting as it may be that market players are trying to release this tension through the different types of agreements that are visible on online markets. The Inquiry shows that the efficiencies that are generally associated with vertical restrictions are not just text book examples. They also exist in the real-life marketplace. ACM's strategy reflects this: prioritising those cases where harm to consumer welfare is likely to outweigh the efficiencies of increased benefits to consumers.

The first calls for intervention on online markets, by the Dutch authority, emerged in 2008 at the NMa (the Netherlands Competition Authority, one of the predecessors of ACM). Several online stores complained that producers were offering lower prices to retailers with a brick-and-mortar presence than to online retailers. It was alleged that suppliers were using dual pricing to protect high street retailers, and that this amounted to illegal agreements and a price squeeze for the online retailers. When it came to substantiating the claims,

14 See Report from the Commission to the Council and the European Parliament, Final Report on the E-Commerce Sector Inquiry, COM/2017/229 final, available at: http://ec.europa.eu/competition/antitrust/sector_inquiries_e_commerce.html (last accessed: 27 May 2017), 6.

15 See OECD Report, note 2.

16 See E-Commerce Sector Inquiry, note 14.

17 See Commission, Staff Working Document Accompanying the Final Report on the E-Commerce Sector Inquiry, SWD/2017/154 final, available at: http://ec.europa.eu/competition/antitrust/sector_inquiries_e_commerce.html (last accessed: 27 May 2017), 101.

despite appeals to the sector for concrete examples, there was insufficient evidence to warrant starting an investigation. It was claimed by the branch organisation that many web-retailers were reluctant to come forward because of fear of reprisals. They were worried, it was alleged, that delivery would be delayed or even refused.[18]

In 2014 and 2015, ACM reviewed and clarified its policy on vertical agreements, publishing an Enforcement Priorities Strategy in April 2015.[19] ACM explains in its Enforcement Priorities Strategy that a case will be prioritised where there is a solid theory of harm, where there is clear harm to consumer welfare. ACM will not prioritise cases simply because they involve particular types of vertical restrictions, in the absence of evidence of consumer harm. Prioritisation depends therefore on the facts of the case. This means that the authority tries to estimate the effects of a vertical restriction at a very early stage of the examination. In a preliminary investigation, possible harm and possible efficiencies in each specific case are taken into account. That is important because vertical restrictions can also generate well known efficiencies. If the net effect is likely to be negative, ACM can intervene.

3.1.2. Is a Platform Ban a Permitted Vertical Agreement? – Coty Case

This potentially landmark case concerns the hotly debated issue of the extent to which marketplace or platform bans are permitted under EU competition rules. In the Netherlands, ACM has been taking a keen interest in platform markets and this is an important topic for retailers, platforms, and manufacturers. That is why, the Dutch government submitted comments to the European Court in the *Coty* case.[20] The question in this case, which is a request for a preliminary ruling from the German court, concerns whether a producer, Coty, a luxury cosmetics brand, can prohibit the use of online platforms by its retailers within a selective distribution system.

In selective distribution systems, distributors are selected on the basis of specific criteria, set out in the distribution agreement.[21] These are very common agreements. As the Commission's Inquiry points out, selective distribution is used by more than half of the manufacturers of clothing and shoes, cosmetics and healthcare, consumer electronics and household appliances that they surveyed.

18 See NMa Press Release of 23 June 2009, available at: www.acm.nl/nl/publicaties/publicatie/5313/NMa-geen-mededingingsrechtelijk-onderzoek-internetverkoop/ (last accessed: 27 May 2017).

19 See ACM's Enforcement Priorities, note 8.

20 Pending case C-230/16: Request for a preliminary ruling from the Oberlandesgericht Frankfurt am Main (Germany) lodged on 25 April 2016 – *Coty Germany GmbH v Parfümerie Akzente GmbH.*

21 See Commission Staff Working Document, note 17, 71.

Its popularity is growing as a means to protect those competition parameters that are important to manufacturers and consumers, namely branding and quality. Selective distribution systems do not infringe Article 101(1) of the Treaty on the Functioning of the European Union (TFEU) provided that the resellers are chosen on the basis of objective criteria of a qualitative nature, laid down uniformly for all potential resellers and not applied in a discriminatory manner, that the characteristics of the product in question necessitate such a network in order to preserve its quality and ensure its proper use and, finally, that the criteria laid down do not go beyond what is necessary.[22] Selective distribution agreements are exempted by the Vertical Block Exemption Regulation[23] as long as the market share of both the supplier and the buyer is less than 30 % and none of the hardcore restrictions listed in Article 4 is present, such as retail price maintenance. The Regulation sets out what is allowed and what is not allowed in a selective distribution agreement. To put it simply, you can control how the goods are sold, but not to whom they are sold.[24]

When it comes to selective distribution clauses in online sales, there is a difficult balance to be made. Consumers should be able to benefit from the internet and suppliers should have the entrepreneurial freedom to choose the optimal distribution format to protect their investments in quality and brand image, for example against free riding. So, on the one hand, complete bans on the distributors' use of internet are considered as restrictions of passive sales, which qualify as hardcore restrictions.[25] On the other hand, obligations to preserve the quality of distribution and protect investments against free-riding are allowed. This means that it is not permissible to punish or limit successful online sales, but it is allowed to insist that the distributor have one or more brick-and-mortar shops.[26] The distributor can be required to fulfil quality and service conditions for online sales that are overall equivalent to those applicable to offline sales,[27]

22 See case 26/76 *Metro SB-Grossmarkte v Commission* [1977] ECLI:EU:C:1977:167; case C-31/80 *L'Oreal* [1980] ECLI:EU:C:1980:289; case C-439/09 *Pierre Fabre Dermo-Cosmetique SAS* [2011] ECLI:EU:C:2011:649.

23 See Commission Regulation 330/2010 of 20 April 2010 on the Application of Article 101(3) of the Treaty on the Functioning of the European Union to Categories of Vertical Agreements and Concerted Practices, [2010] OJ L 102/1, and the accompanying Commission Notice, Guidelines on Vertical Restraints, [2010] OJ C 130/1.

24 For a description of what is allowed and not allowed under the EU rules see L. Peeperkorn, in 'Revised EU Competition Rules for Supply and Distribution Agreements', (2010) *Finnish Competition Law Yearbook*: "[t]hus an authorised distributor should be free to sell to any final consumer and to supply or get supplies from any other authorised distributors", 216 and also J. Faull and A. Nikpay, *The EC Law of Competition*, (Oxford University Press, 2007), 1225-1228.

25 Case C-439/09, note 22.

26 Commission Notice, Guidelines on Vertical Restraints, note 23, para 54.

27 Ibid, para 56.

and to use third-party platforms only in accordance with the standards and conditions agreed between the parties.[28]

In the *Coty* case, the Netherlands argued that whether a platform ban is legal depends on the circumstances. On the one hand, there are the obvious competitive free-riding arguments associated with brand image. On the other hand, there is the risk of softening intra-brand competition by limiting online commerce. The balance between the two is dictated by market conditions, notably inter-brand competition. It may very well be that in one Member State or product market, online platforms are an essential sales channel. In that case, a platform ban could amount to a total online sales ban. As the Court ruled in *Pierre Fabre*, such a total online sales ban constitutes an object infringement.[29] If, on the other hand, there are important alternative online sales channels, the pro-competitive argument may prevail. In the Netherlands, online retail platforms (such as bol.com and Amazon) do not seem to be dominant. A similar picture is reflected in the European Commission's E-Commerce Sector Inquiry.[30] Therefore, the Netherlands argued that labelling this kind of restrictions as hardcore would probably lead to over-enforcement, and a case-by-case approach is preferable. Advocate General Wahl has delivered an Opinion in the *Coty* case, indicating that provided that it is applied in a non-discriminatory fashion and is objectively justified by the nature of the contract products, a clause prohibiting members of a selective distribution system from making use of a third-party platform may be considered to be compatible with Article 101(1) TFEU.[31] The European Court of Justice will issue a judgment in this case in late 2017 / early 2018.

Other specific issues that are raised with online selective distribution are for example, the obligation for a brick-and-mortar establishment. This issue is highlighted in the Commission's E-Commerce Inquiry and is particularly problematic for discount sellers.[32] ACM expects to receive more guidance on this and other issues, as cases progress through the Courts.

To summarise, using selective distribution online is not fundamentally different from offline. Cases like *Coty* show that every case, every market has its own dynamics and ACM examines these issues on a case by case basis. In quickly evolving online markets, the authority should balance carefully the pro- and anti-competitive effects of the agreements or behaviour concerned in order

28 Ibid, para 54.

29 Case C-439/09, note 22.

30 See Commission Staff Working Document, note 17.

31 See also case C-230/16 Opinion of AG Wahl, note 9, paras 115 to 121.

32 See Commission Staff Working Document, note 17, 83-86.

to ensure adequate intervention on the part of the authority. The increased availability of empirics, of studies and of cases helps to improve interventions.

3.2. Platforms, Across-Platform Parity Agreements

Online platforms enter new markets all the time, challenging incumbent players and bringing new business models and services to consumers and companies. In order to gain market share and shield their investments from free-riding by competitors and / or suppliers, they often use 'across-platform parity agreements'. The differences between 'narrow' across-platform price parity agreements, and wide across-platform price parity agreements are set out below.[33] Many national competition authorities, in the EU, have agreed in commitment decisions to allow narrow across-platform price parity agreements in platform contracts, while prohibiting wide parity agreements. Some Member States, such as Germany, have gone further, and banned all platform parity agreements. Below, we set out how ACM has looked in detail into these clauses, in two instances: the preliminary investigation of *Thuisbezorgd* and the joint European work conducted on the Online Hotel Booking Monitor.

3.2.1. Preliminary Investigation Example

ACM has applied its Enforcement Prioritisation Strategy in several preliminary investigations. The authority published the results of one such a preliminary investigation in December 2016.[34] The decision deals with platform parity agreements in a popular online food delivery marketplace / platform. ACM conducted its preliminary investigation into a requirement that Dutch meal-delivery service provider Thuisbezorgd.nl (the Dutch subsidiary of takeway.com) imposes on restaurants. Thuisbezorgd.nl wants restaurants to charge the same prices on their own websites and on the website of Thuisbezorgd.nl. For ACM, one of the main questions was whether or not restaurants and consumers have sufficient options and opportunities.

The type of same-price clause at issue in this case is formally known as a narrow price-parity agreement. Narrow parity agreements are agreements designed to ensure that the restaurant does not offer the same product on its own website at a lower price, but say nothing about the offerings on other platforms. Narrow

33 See J.B. Baker and J.A. Chevalier 'The Competitive Consequences of Most-Favored-Nation Provisions', (2013) 27 Antitrust (2), 21-26, and the OECD's work on 'Competition and Cross-Platform Parity Agreements', available at: www.oecd.org/daf/competition/competition-cross-platform-parity.htm (last accessed: 27 May 2017).

34 See ACM Press Release, (21 December 2016), note 11.

price parity agreements are used by platforms to produce efficiencies. For example, the platform in this case would argue that the narrow agreement prevents free-riding by restaurants. Without such a clause, restaurants would arguably have an incentive to post lower prices in their own channel, advertise this to consumers, and use the platform only as a means to attract traffic to their own channel. The platform would lose income from commissions, which may threaten its quality and incentive to invest. Secondly, narrow parity agreements lower search costs of consumers, and thereby increase competition between restaurants. Narrow parity agreements ensure that consumers know that they cannot get a discount at the restaurant. Without this guarantee, consumers would have to check prices of all the restaurants they are interested in, in the direct channel. This would arguably raise search costs.

The preliminary investigation revealed that there are many ways in which consumers can order take-out meals, or have them delivered. One such way is through online platforms like Thuisbezorgd.nl, Hungry.nl, or Sneleten.nl. Some restaurants also have their own websites where meals can be ordered. Consumers can also order meals themselves from their local pizzerias, take-away shops or snack bars, either over the phone or in person. Consumers currently make use of all of these options when ordering food.

Restaurants are also able to decide where and how they want to promote and offer their meals: on their own websites only, or also on online platforms. ACM found that, under current market conditions, it is unlikely that the same-price guarantee negatively affects consumers. In addition, this market is growing and dynamic. Consumers and restaurants have enough options for meal delivery and take-aways.

ACM's conclusion in this preliminary investigation was that competitive pressure from other sales channels and the opportunities for suppliers to price differentiate made consumer harm unlikely. In this decision, market dynamics were an important factor. ACM anticipates that the market for online food-delivery platforms will change tremendously. New competitors are continuously entering the market with new concepts, for example, UberEats, Foodora, or Deliveroo. Taking action against a 'same-price' guarantee such as the one Thuisbezorgd.nl uses is not needed in such a dynamic and contestable market.

Although ACM decided not to take the investigation any further, it nevertheless published an extensive reasoning in this decision, as an example of a situation, in which the authority sees no harm for consumers. ACM thinks publishing this decision will help to give clarity to distributors and platform operators. ACM

sees the temptation to rush for safe harbours and hardcore labels from an enforcement perspective, but feels that hardcore labels are unhelpful when it comes to vertical agreements in this online era as the pro- and anti-competitive effects require more careful balancing than ever.

3.2.2. Online Hotel Booking Monitor

A second example is the study conducted in the online travel agency market, better known as the Online Hotel Booking Monitor. The European Commission and ten national competition authorities monitored the effects of the antitrust enforcement measures adopted in recent years.[35] Across Europe, wide across-platform parity agreements (APPAs), had either been replaced with narrow parity agreements, or abolished altogether. The main concern was that the use of wide APPA clauses on existing platforms would leave insufficient latitude to new booking websites or platforms to attract customers. This could strengthen the position of the current platforms and could damage competition between platforms.

Wide across-platform parity agreements contain clauses designed to ensure that where a particular product (in this case, a hotel room) is placed on the platform at a particular price, it is not placed by the provider (in this case, a hotel) for a lower price on another platform. As explained above, narrow parity agreements are agreements designed to ensure that the hotel does not offer the same product on its own website at a lower price, but say nothing about the products offered to other platforms.

With the removal of the wide across-platform parity agreements in most Member States, competition in the online travel sector has become easier, at least in theory. Some Member States have gone further and have also banned narrow parity agreements. However, it is not clear that removing the narrow parity clauses does a better job in reducing the alleged problem of insufficient competition between online travel agencies (OTAs). First, the case against narrow parity clauses rests on the assumption that, in practice, narrow parity clauses lead to wide across-platform parity clauses. This is true if many hotels decline to price differentiate between OTAs because they do not want to make their direct channel more expensive than the cheaper OTAs. However, this assumption has its problems. There may be other reasons for hotels not to price differentiate between OTAs, they may simply find it too much trouble to do so.[36]

35 See Report on the Monitoring Exercise Carried Out in the Online Hotel Booking Sector by EU Competition Authorities in 2016, note 10.

36 Ibid, 7.

Also, hotels may have an incentive to price their own channel higher than (some) OTAs, because those OTAs provide access to different sets of consumers. It is quite likely that the hotels' direct channel does not compete for the customers provided by OTAs because consumers typically are unfamiliar with a particular hotel until they find it through an online travel agency. Even if (some) hotels in practice use a wide price parity when they are only legally obliged to comply with a narrow parity clause, there may not be a competition problem. The reason is that it is up to the hotels to choose between the benefit of stronger competition between OTAs versus the benefit of a competitively priced own channel. That is part of the hotel's freedom.

Second, the prohibition on the use of the narrow parity clause in Germany and France does not seem to have led to a stronger decrease in online travel agency commission rates there, compared to other Member States, where only the wide clause is prohibited.[37] Third, OTA commissions are not the only parameter of competition between online travel agencies. Online travel agencies may also compete by giving free nights to consumers, for example, which would weaken the possible harm from wide clauses occurring in practice. Finally, even if hotels set a wide price parity because of the narrow price parity clause, the commitments imply they now have the option to give fewer rooms to OTAs with a higher commission. This puts more competitive pressure on OTAs than before the commitments were put in place. The same applies to the removal of the conditions parity.

ACM contributed significantly to the econometric analysis in the Monitor. ACM's economists worked with other economists in national competition authorities across Europe, to examine room price and room availability differentiation between sales channels and OTA commission rates. These are indicators for the existence of competition between platforms. Generally, the results of the Monitor indicate improved conditions of competition and more choice for consumers. However, a concern for ACM is that almost 50% of the hotels was unaware of the changes in their contracts with OTAs.[38] That is worrying because it is essential, if competition is to have the desired effect in the market, that hotels should use the opportunities that the intervention of the antitrust authorities created for them.

Both of these examples show that theories of harm and good, pro- and anti-competitive effects are balanced in the online era, and the net effect is likely to differ between markets, between products and between short and long term.

37 Ibid, 18.

38 Ibid, 6.

For adequate and trustworthy competition enforcement, this means that there is a risk of over-enforcement and that we should take a prudent approach, based on facts, cases, and empirics rather than more ideological, conservative arguments. In order to strike the right balance in this dynamic context, it is imperative to invest in knowledge and transparency in these markets. This involves conducting market studies and cases and engaging actively with the market players, incumbents, and challengers.

4. Consumer Enforcement

As a consumer authority, ACM is vigilant in ensuring that online players respect the rights of consumers as laid down in consumer protection legislation. In addition to the work that ACM has undertaken within the Netherlands, the authority is active at European level. ACM is part of the Consumer Protection Cooperation Network[39] and has a duty to terminate cross-border infringements on request of a competent authority in another EU Member State. ACM sends enforcement requests and participates in joint actions, for example on terms and conditions of social media.[40] This work also involves advising on new draft legislation to modernise consumer protection legislation, as well as laws to improve data protection and outlaw geo-blocking (i.e. reducing access to internet content based on the location of the internet user). EU Consumer Commissioner Jourova has made it clear that "online barriers remain. Because of them, European citizens miss out on attractive offers. European companies and start-ups cannot branch out across borders. European governments cannot fully benefit from digital tools."[41] This is why the EU developed the Digital Single Market Strategy.[42] In this Section, we set out briefly some of the different tools that ACM has used in the past couple of years, to target online traders and protect and empower consumers. Some of these interventions are focused on reducing information asymmetry. Others target specifically the provision of inaccurate information, or aim to counteract the results of unclear presentation online and

39 This network has a formal basis in Regulation 2006/2004 of the European Parliament and of the Council of 27 October 2004 on Cooperation between National Authorities Responsible for the Enforcement of Consumer Protection Laws (the Regulation on Consumer Protection Cooperation), [2004] OJ L 364/1.

40 Commission, 'The European Commission and Member States Consumer Authorities Ask Social Media Companies to Comply with EU Consumer Rules', (Press Release, 17 March 2017), available at: http://europa.eu/rapid/press-release_IP-17-631_en.htm (last accessed: 1 October 2017).

41 Commissioner Vera Jourova, Speech held at the European Consumer and Competition Day, (Luxembourg, 21 September 2015), available at: https://ec.europa.eu/commission/commissioners/2014-2019/jourova/announcements/speech-vera-jourova-consumer-and-competition-day_en (last accessed: 1 October 2017).

42 See https://ec.europa.eu/commission/priorities/digital-single-market_en (last accessed: 1 October 2017).

fight unfair commercial practices. In all cases, the aim of ACM's interventions is to solve the market problem at hand and empower the consumer.

4.1. Warnings and Fines

In 2016, ACM screened online stores for compliance with consumer rules on financing the return of goods that are purchased online. Online stores have to make it clear that the consumer has a right to cancel the order within 14 days (right of withdrawal), including a right to a full refund, and also reimbursement of the shipping costs, in a timely manner. In 2014, ACM issued a warning to online stores indicating their obligations, and that the authority would be monitoring compliance. In October 2016, ACM fined five Dutch online fashion stores for infringing this law.[43] In total, the online stores were fined over EUR 500,000.[44] The law is strict. On their websites, online stores must inform consumers in a clear manner about the rules regarding order cancellations. The fines are less spectacular than competition fines, but they are seen by ACM as being proportional to the type of business being targeted. In addition to classical command and control enforcement tools, such as fines and periodic penalty payments, ACM also uses the expertise of behavioural experts to try to discern how best to encourage compliance by online retailers.

4.2. Campaigns Targeting Consumers and Businesses

ACM regularly runs campaigns to empower consumers and inform businesses about consumer legislation. ACM ran a campaign in June 2015 advising consumers not to pay for unsolicited goods or services, and not to become entrapped in online (subscription) traps.[45] In another campaign in November 2015, ACM called on consumers to make a conscious decision about how they pay for their online purchases.[46] This is to prevent consumers from losing their money if something goes wrong or if they encounter any other problems. Consumers can pay in different ways, for example, in advance or afterwards, insured or uninsured. In November 2016, ACM ran a consumer campaign on

43 See ACM Press Release, (26 October 2016), available at: www.acm.nl/en/publications/publication/16527/Five-online-stores-fined-for-violating-order-cancellation-rules/ (last accessed: 27 May 2017).

44 Many of these cases have been appealed in front of the Dutch courts and final judgment is pending.

45 See ACM Press Release, (2 June 2015), available at: https://www.acm.nl/en/publications/publication/14339/Free-samples-often-end-up-costing-consumers-hundreds-of-euros/ (last accessed: 27 May 2017).

46 See also ACM Press Release, (14 January 2016), available at: www.acm.nl/en/publications/publication/15217/Lower-payment-fees-for-online-purchases-after-ACM-intervention/ (last accessed: 27 May 2017).

debt collection, with a collection fee checklist, calculation tool, formats for letters objecting to unfair practices and a video clip.[47]

ACM tackled several businesses, including the largest meal-delivery service providers and airline ticket providers in the Netherlands, about their payment fees.[48] These companies were charging consumers too high fees when paying for their online purchases using credit cards or online payment methods. These providers have now reduced the fees they charge consumers, bringing them in line with the rules. According to the rules, businesses can only charge the actual costs for payment. These are the variable costs per transaction plus any fixed costs for the payment system itself. Other costs such as personnel costs cannot be passed on in this manner.

More recently, ACM has carried out a study into online reviews.[49] ACM provided consumer information and guidelines for businesses about online reviews.[50] Online reviews are evaluations made by consumers about products or services. Since, such reviews play an increasingly larger role in the decision making process of consumers. In its study, ACM has not found any indications of structural problems at this point. In order to ensure the reliability of online reviews in the future, ACM has reminded companies of the rules they should follow, such as informing consumers on how reviews are aggregated and presented, treating positive and negative reviews equally, publishing reviews as soon as possible, being transparent about the circumstances in which the reviews were written, such as 'reviewers were allowed to test this product for free', 'the reviewer received a remuneration for writing this review', etc. Following discussions with ACM, four large review websites have stated that they will apply these rules from now on. ACM expects trade organizations to play a large role in creating awareness of the rules among their members.[51]

47 See also ACM Press Release, (15 November 2016), available at: www.acm.nl/en/publications/publication/16603/ACM-steps-up-efforts-against-unfair-debt-collection-practices/ (last accessed: 27 May 2017).

48 See ACM Press Release, (11 November 2016), available at: www.acm.nl/en/publications/publication/14947/Mind-how-you-pay-for-your-online-purchases/ (last accessed: 27 May 2017).

49 See ACM Press Release, 11 May 2017, available at: www.acm.nl/en/publications/publication/17222/ACM-calls-for-increased-transparency-in-online-reviews/ (last accessed: 27 May 2017). Influencers such as vloggers were not part of the study.

50 The ICPEN Guidelines for online reviews were used as a basis for these guidelines.

51 See ACM Study, 'Online Reviews Gereviewd', (2017), available at: www.acm.nl/nl/publicaties/publicatie/17217/Eindrapportage-ACM-verkenning-naar-online-reviews-Reviews-gereviewd (last accessed: 27 May 2017)._

4.3. Using Video to Inform and Empower

ACM uses video to inform and empower consumers. For example, when it comes to data, ACM believes that consumers can only fully play their role in the free market process where they are fully informed of the business model in which their personal data plays such an important part. ACM began already in 2015 to work on increasing consumer awareness of the true cost of mobile apps. ACM used its consumer information portal ConsuWijzer, to launch an awareness campaign called 'Each app has its price'.[52]

ACM developed a short video in which passers-by are offered a 'free' coffee from a kiosk outside the train station. When they respond positively, the barista informs them that in exchange for the free coffee, he will be downloading all the data and photos on their phone, and that he will also follow them around all day. The consumers respond in a shocked manner and decline the coffee. The video is humorous and easily exchanged online. This campaign was aimed at raising awareness among consumers about the fact that, when installing an app, they grant access to a large amount of personal data.

In summary, ACM is strict when it comes to following-up on possible breaches of consumer rights in online markets. This can also take the form of joint actions with other EU consumer authorities.[53] Some of these breaches may seem small-scale, but they have an effect not only in terms of increasing deterrence, but also on improving quality. This, in turn, improves competition between online providers of goods and services, and results in market-wide improvements for the consumer.

5. Novel(ish) Issues: Market Power and Price Discrimination

Gazing into the crystal ball of digital markets has never been more difficult than it is now. New ('novelish') issues arise, such as algorithms for price fixing and individual pricing, and neither companies nor authorities know the exact balance that gives the best result to consumers. However, many of the novel issues authorities will face in the future are anchored in the issues of the past. Nowhere is this clearer than with regard to market power.

52 See ACM Press Release, (26 October 2015), available at: www.acm.nl/en/publications/publication/14853/ACM-launches-awareness-campaign-called-Each-app-has-its-price/ (last accessed: 27 May 2017).

53 Some examples: see ACM Press Release, (3 November 2015), 'Apple and Google No Longer Promote Games as "Free"', available at: www.acm.nl/en/publications/publication/14881/Apple-and-Google-no-longer-promote-games-as-free/ (last accessed: 28 June 2017). See also Commission Press Release, note 40.

5.1. Market Power

Competition law has the power and the experience to prevent harmful mergers and to tackle abuses of dominance, but the prevention of market power amassed through competition on the merits is not a goal of European competition law.[54] The underlying assumption is that competitive incentives, like innovation or new entrants will discipline companies with market power. However, there appears to be a growing general angst in society about digital developments. Digital markets are often described as 'winner takes most' and this has a profound impact on the markets as we know them. It is perhaps not so strange that those who feel threatened by these developments turn to competition and consumer authorities as the traditional guardians against market power abuse and unfair commercial practices. This places the authorities in a dilemma. The competition authority could say that privacy issues belong to the realm of the privacy watchdog, that the influx of tourists in some cities is merely a planning issue. In doing so it misses out on the opportunity to look at the broader picture, for example how privacy or planning issues may enhance or mitigate market power.

Alternatively, authorities may be tempted to gaze into the crystal ball, predict which markets are susceptible to lasting market power, and try to solve that.

ACM's approach tries to find middle ground between these extremes by building up knowledge and experience in digital markets. It investigates complaints and conducts market studies. This allows ACM to explain with arguments why a certain issue is not a problem for competition law, despite assertions to the contrary. An open mind also allows ACM to uncover new issues, outside the competition domain. Finally, the knowledge gained with every case or study may prove invaluable when a case with a competition problem arises, as it will help the authority to reach a conclusion and solution much faster, which is of ever growing importance in today's markets. We think combining efforts of different authorities, at a national and European level, will contribute greatly to finding solutions.

54 "To be in a dominant position is not in itself illegal. A dominant company is entitled to compete on the merits as any other company." DG Comp website, http://ec.europa.eu/competition/antitrust/procedures_102_en.html (last accessed: 1 October 2017). See also R. Whish and D. Bailey, *Competition Law*, (8th ed., Oxford University Press, 2015), 202; J. Faull and A. Nikpay, note 24, 348; case C-6/72, *Continental Can* [1973] ECLI:EU:C:1973:22, para 26: "[…] in order to come within the prohibition, a dominant position must have been abused."

In 2016, ACM published an article, 'Big Platforms, Big Problems', in which the risks of *ex-ante* platform regulation are explored.[55] First, the additional costs to comply with regulation may actually hinder innovation and entrance in the market. It might have the unwanted side-effect of strengthening the position of incumbents. Second, in most cases, dominance appears to be short-lived, in the digital era. There may be exceptions, but Google, Apple, Facebook, and Amazon appear to be competing and innovating fiercely. Third, the variety in platforms, business models, and potential harm is great. It seems impossible that there could be a straightforward way of capturing all that assortment in a single set of regulations.

In the same paper, ACM also looked at *ex-post* assessment under competition law. An obvious limitation is that abuse cases tend to take a long time, which is problematic in these dynamic markets. There are additional issues, such as dealing with multiple relevant markets on all sides of a platform. Another problem is that 'free' services for consumers make it difficult to establish a price. Also, boundaries between markets blur daily making market definition in this area something of a nightmare. However, the biggest challenge of all, may actually be to determine harm to consumer welfare in the first place. Not every restriction on consumer choice leads automatically to consumer harm, and so the authority has to weigh potential harm against the welfare enhancing aspects of the platforms, such as lower prices, 'free' services and innovation.[56]

Building on the paper mentioned above, ACM published a market study on Online Video-Streaming, with a focus on online video advertising.[57] The study showed the intricate working of a swiftly moving multi-sided platform market. Online video platforms compete heavily for consumer attention. This battle primarily takes in the field of video-content and new service provision. The study suggested that none of the online video platforms currently has a dominant position in online advertising. The study did not further explore content issues. The large, international platforms such as YouTube and Facebook face competition on these markets, at present, from each other and from smaller competitors. Online advertisements can be placed in a number of ways. In addition, there are many different companies that sell advertising space and place advertisements. Advertisers are able to choose the type of advertisement, and choose with whom they wish to do business, and they take

55 ACM, Grote Platforms, Grote Problemen? Een beschouwing van online platforms vanuit mededingingsperspectief, (September 2016), available in the original Dutch version at: www.acm.nl/nl/publicaties/publicatie/16333/Grote-platforms-grote-problemen/ (last accessed: 27 May 2017).

56 P. Lugard, 'Keus', (2015) 5 Markt & Mededinging, 167-169.

57 Note 12.

advantage of these opportunities. There is also sufficient competition between the companies that facilitate the trade of advertising space. In the market study, ACM also looked at the various terms and conditions in use.[58] Personal datasets are becoming more and more important in online advertising. However, the study suggested that the large datasets of established platforms are not an insurmountable barrier for being able to enter this particular market.

The study reveals a dynamic market where one player has a certain degree of market power, and explores scenarios showing potential problems that could arise. In-depth knowledge of how a market works allows the authority to intervene more quickly in the future, if necessary with interim measures, when a problem does arise, and it helps to waylay knee-jerk legislative reactions.

The non-price aspects of competition have become more relevant in the EU.[59] As such, there is no legislation directly facilitating the consideration of non-price issues in competition assessments. Some feel this may lead to a dilemma because, "[o]ur understanding of the interactions between technology and society is so poor that the harmful social consequences of the fully developed technology cannot be predicted with sufficient confidence to justify the imposition of controls," but "by the time a technology is sufficiently well-developed and diffused for its unwanted social consequences to become apparent, it is no longer easily controlled".[60] The problem with assessing non-price issues through competition law is that competition law is best designed to test economic efficiency, rather than to test optimal levels of quality or privacy. So, the only test possible under competition law would seem to be whether there is an extraction of value for the consumer on the basis of dominance, without any efficiency benefit for the consumer.

5.2. Price Discrimination

In the online world, computer programs are used to monitor and sometimes set prices. This may facilitate dynamic pricing and price discrimination.[61] This can take several forms. Algorithms can adjust prices automatically, in order to compete more effectively. For example, as the stocks held by a competitor

58 ACM is examining terms and conditions of online social media platforms in a European joint action. See the European Commission Press Release, note 40.

59 See for example the attention paid to innovation by the European Commission in the 2017 *Dow/Du Pont* merger decision, http://europa.eu/rapid/press-release_IP-17-772_en.htm, (last accessed: 1 October 2017).

60 D. Collingridge, *The Social Control of Technology,* (Frances Pinter, 1980), 17-18.

61 See OECD Background Paper, Algorithms and Collusion, (2017), DAF/COMP(2017), 9 June 2017 and Oxera Discussion Paper, When Algorithms Set Prices; Winners and Losers, 19 June 2017.

platform decrease, the price could automatically rise on competing online platforms. The European Commission's E-Commerce Sector Inquiry showed that monitoring of online pricing by retailers to adjust price, and by producers, to monitor prices, is the norm.[62]

Alternatively, algorithms might lead to prices above the competitive level, facilitating Ezrachi and Stucke's, "tacit collusion on steroids".[63] The use of such algorithms is a hotly debated topic, that we will not deal with here in detail.[64]

Algorithms are also developed to facilitate individual pricing. Individual pricing is a form of dynamic pricing whereby individual consumers get different offerings for the same product. It may be time-sensitive, so for example, the price changes in response to the length of time a consumer searches for a particular product. Alternatively, pricing may be related to profiles, for example based on previous personal searching information and purchasing history. If you live at a particular address, or have purchased luxury products in the past, you may receive a higher price, for the same product or service, depending on the data available to the company setting the price. From a purely economic perspective, individualized prices are not necessarily bad, as they may lead to a greater demand being met. The is however a risk that through individualised pricing all consumers pay the maximum they are willing to pay. In that case the entire consumer surplus shifts to producers. Consumer protection rules oblige retailers to make it clear to consumers what the price is, or the manner in which it is to be calculated, but there is no rule that prohibits individual pricing as such (although a price based on nationality or on Member State of residence is illegal).[65]

The question is where should the authority intervene. Some would suggest that a transparency obligation would seem to answer the problem of personalised pricing strategies. It would ensure consumers' trust in online markets. Authorities can intervene where consumers are misled, or where important information

62 See E-Commerce Sector Inquiry, note 14, 5.

63 See A. Ezrachi and M.E. Stucke, *Virtual Competition. The Promises and Perils of the Algorithm-Driven Economy,* (Harvard University Press, 2016), 56.

64 See J. Laitenberger, "[e]ven in this futuristic scenario, I can see a place for the public authorities that enforce competition rules. They will probably develop algorithms that will outwit the companies they have to monitor and keep in check. And they will put them to work to make sure that markets remain open, contestable and fair." 'Competition at the Digital Frontier' Speech, Consumer and Competition Day, (Malta, 24 April 2017), available at: http://ec.europa.eu/competition/speeches/index_speeches_by_the_dg.html (last accessed: 27 May 2017).

65 Directive 2011/83/EU of the European Parliament and of the Council of 25 October 2011 on Consumer Rights, Amending Council Directive 93/13/EEC and Directive 1999/44/EC of the European Parliament and of the Council and Repealing Council Directive 85/577/EEC and Directive 97/7/EC of the European Parliament and of the Council, [2011] OJ L 304.

is undisclosed.[66] Examples include stating that the consumer is getting the lowest price, when in reality, other consumers get lower prices, or where it is stated that the information used to personalise the price is being collected for other reasons. For these reasons, authorities should keep an eye on the pricing strategies of online players. On this issue, CERRE recommends the adoption of more developed guidelines on the implementation of the general principles of EU consumer rules to personalised pricing.[67]

6. Conclusion

When dealing with digital markets, it is important to keep in mind what the counterfactual is. A lot of the comparisons being made seem to assume that the counterfactual is a happy online world of perfect competition and consumer protection.[68] However, the real counterfactual is surely the old world, where people living at any distance from cities had no choice and limited availability. The fact is that e-commerce has massively increased product and service availability for huge numbers of consumers and developed new business opportunities. It is surely naïve to expect that producers of branded products will suddenly abandon the exclusivity on which they have based their brand to embrace price competition in an online world. It is equally naïve to expect services to be offered for 'free' – there will always be a cost whether it is paid in money, data or user-attention. The role of the authority in this digital world should be to protect consumers' rights, encourage transparency and deter foreclosure, in order to keep markets contestable. The authority should also be careful not to automatically assume a parallel between online and offline markets. It is important to monitor closely how consumers use markets, and not just assume that the same reasoning that is used on offline markets will spill over into online markets.

To summarise, while e-commerce may generally be welfare-enhancing, authorities should monitor the growth of platforms, and their behaviour, closely. It is important to be alert to the dangers of market power and the possibility of foreclosure by anti-competitive agreements. ACM's fines to date in this area have been on the side of consumer enforcement, because that is where, up to now, there has been evidence of illegal conduct, that is harmful to consumers.

66 See the recommendations of the UK authority in 'Personalised Pricing Increased Transparency to Improve Trust' *UK Office of Fair Trading,* (OFT1489), May 2013.

67 See M. Bourreau, A. De Streel, I. Graef and T. Valletti, 'Big Data and Competition Policy: Market Power, Personalised Pricing and Advertising', (Project Report, Centre on Regulation in Europe, 2017), 48.

68 See A. Ezrachi and M.E. Stucke, note 63, 9.

In the competition domain, so far in preliminary investigations and market studies, ACM has generally found sufficient levels of competition and dynamic markets. Under those circumstances, ACM is reluctant to intervene with competition tools. However, in the event that problems arise, we need to be in a position to intervene swiftly and effectively. To that end, it is important to invest in building up knowledge and market analysis. Also, we need to ensure that consumer protection and data protection legislation are effectively enforced. As a multidisciplinary authority, ACM is well-placed to combine enforcement, oversight and empowerment to allow the 'footloose' consumer to flourish, to improve consumer welfare and well-functioning markets.

Chapter 3:

Don't Be Evil: Can We Teach Algorithms Not to Break Competition Law?

*Hans Vedder**

1. Introduction

'Don't be evil' is the principle that underlies Google's Code of Conduct.[1] It is a short, appealing, and intuitive principle that has an almost biblical ring to it. It should be easy not to be evil. This, in Google's own words, means 'following the law'. Still, Google has found itself at the wrong end of the Commission's stick, having infringed, in the Commission's view, Article 102 TFEU with its shopping comparison service.[2] However, Google strongly disagrees with the Commission's findings and has already appealed the decision.[3] One of the arguments it puts forward is that it was actually improving the quality for users and competing on the merits. This is diagonally opposed to what the Commission finds.[4] Margarethe Vestager, the Commissioner responsible for competition, has recently called for "[…] compliance with the rules – the competition rules, for instance – should be built into those algorithms by design. So that even if we don't know exactly how they make their decisions, we can be confident that algorithms will act like good citizens."[5]

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1 https://abc.xyz/investor/other/google-code-of-conduct.html (last accessed: 30 November 2017). Note that this actually relates to Google's mother company, Alphabet.

2 Google was fined € 2.4 billion for abusing its dominant position as a search engine, by giving an illegal advantage to Google Shopping, its own comparison shopping service. See the Press Release available at: http://europa.eu/rapid/press-release_IP-17-1784_en.htm (last accessed: 30 November 2017). The decision has recently been published under number AT.39740 *Google Search – Shopping*.

3 The case is registered under case number T-612/17 *Google and Alphabet v Commission* [2017] OJ C 369/37.

4 The quote by Competition Commissioner, Margarethe Vestager in the Press Release, note 2, refers to denying other companies the chance to compete on the merits and denying European consumers, *inter alia*, the full benefits of innovation.

5 Speech by M. Vestager, 'Helping People Cope with Technological Change', available at: https://ec.europa.eu/commission/commissioners/2014-2019/vestager/announcements/helping-people-cope-technological-change_en (last accessed: 30 November 2017).

This, if anything, shows how difficult compliance with competition law may actually be. In a day and age where the Commission has introduced an expedited procedure for cases where the companies accept the Commission's findings and legal qualifications,[6] the *Google Shopping* case stands out as one where the very fundamentals of competition law are open for discussion. Interestingly, the *Google Shopping* case is not the only affair that entices fundamental debates. The Commission's *Google Android* case is still pending and already triggering a significant debate.[7] This is not different for the German Federal Cartel Office's investigation into Facebook's infringements of privacy rights as a form of abuse of dominance.[8] Apart from the fundamental debates, we also see that there are widely differing attitudes more generally, for example on both sides of the Atlantic.[9]

If compliance with competition law turns out to be so difficult for companies operated by people who are instructed not to be evil and comply with the law, what are we to think of companies or business decisions operated by algorithms?

Algorithms are mathematical formulas that can be used to solve problems. They do so by logically applying a finite number of decisions, or steps, to input (mostly data) and must produce a result, i.e. the process must end. Algorithms are essential to computer software and have gained most recent notoriety as self-learning or machine learning algorithms. These are essentially statistical models that analyse enormous datasets for patterns in a way that allows the algorithm to develop itself. It is for this reason that such algorithms are referred to as artificial intelligence.[10]

6 This settlement procedure is set out in Article 10 of Commission Regulation 773/2004 of 7 April 2004 Relating to the Conduct of Proceedings by the Commission Pursuant to Articles 81 and 82 of the EC Treaty, [2004] OJ L 123/18. See further Commission Notice on the Conduct of Settlement Procedures in View of the Adoption of Decisions Pursuant to Article 7 and Article 23 of Council Regulation (EC) No 1/2003 in Cartel Cases, [2008] OJ C 167/1 and case T-180/15 *ICAP v Commission* [2017] ECLI:EU:T:2017:795, on compliance of this procedure, when combined with a non-settlement procedure, with the presumption of innocence.

7 This could be gleaned from the Chillin' Competition blog, available at: https://chillingcompetition.com/2016/04/20/the-commissions-statement-of-objections-in-the-android-case/ (last accessed: 30 November 2017) and the 1 million plus hits a Google search for 'Commission android case' returns.

8 See www.bundeskartellamt.de/SharedDocs/Meldung/EN/Pressemitteilungen/2016/02_03_2016_Facebook.html (last accessed: 30 November 2017).

9 The US press often notes that US judges have to this moment rejected all cases against Google, e.g. www.wsj.com/articles/google-faces-new-eu-complaint-over-android-1488898853 (last accessed: 30 November 2017).

10 Myriad definitions exist, such as big data analytics, expert systems and neural networks. For a slightly fuller discussion see A. Ezrachi and M.E. Stucke, *Virtual Competition. The Promises and Perils of the Algorithm-Driven Economy,* (Harvard University Press, 2016), 11.

Many see a future in which robots and artificial intelligence play an important part in our lives and in the economy.[11] Whatever the realism, time-frame, opportunities or risks of this scenario may be, the fact remains that if competition law is to be future-proof, we need to look into the questions an algorithm driven economy poses. In a nutshell, such questions can be categorised under two headings. One group of questions essentially asks whether current competition law can deal with the practicalities of an algorithm driven economy. It will, for example, inquire into the possibilities of holding the software engineer responsible for the competition law relevant decisions taken by an algorithm. The second group of questions inquire into the interaction between the mathematical model and the legal models. It is in the second category that this Chapter develops some ideas.

Such ideas are possible from a mathematical perspective because of what is called ethical systems design. This is a branch of artificial intelligence science that works on self-learning algorithms that not only teach themselves on the basis of the dataset(s) they receive as input for neural networks or probabilistic and Bayesian methods and sheer computational power,[12] but that are able to self-correct the learning outcomes.[13] Ethical systems design thus combines what are essentially statistical methods that make assumptions about conditional dependencies with formal rules that superimpose values on the probabilistic outcomes.[14] The idea is to create algorithms that act like good citizens.[15]

The research question thus becomes twofold: what values does competition law offer to such ethical systems designers and what would be required for these values to be usable as a value in an ethically designed system?

Obviously, the first question is far too broad to be answered in the scope of this Chapter, so we need to narrow down the amount of norms that can be derived from competition law. To do this, I will first describe competition law and the instances where machine learning is expected to have an impact. Following this descriptive question, an analysis will take place that identifies the most relevant

11 E.g. https://www.theguardian.com/technology/2017/oct/04/robots-artificial-intelligence-machines-us-survey (last accessed: 30 November 2017).

12 Note that these two mathematical methods already yield different outcomes in terms of accountability, see N. Bostrom and E. Yudkowsky, 'The Ethics of Artificial Intelligence', in K. Frankish and W.M. Ramsey (eds), *The Cambridge Handbook of Artificial Intelligence,* (Cambridge University Press, 2014), 316.

13 For a similar definition and practical application see Ethically Aligned Design – The IEEE Standards Association, available at: http://ieeexplore.ieee.org/document/8058187/ (last accessed: 30 November 2017).

14 E.g. B. Verheij, 'Formalizing value-guided argumentation for ethical systems design', (2016) 24 Artificial Intelligence and Law (4), 387, available at: https://doi.org/10.1007/s10506-016-9189-y (last accessed: 30 November 2017).

15 Speech by M. Vestager, 'Helping People Cope with Technological Change', note 5.

norm in competition law. This norm is very likely to be constructed in the form of several decisions and judgments. After this identification, I will try to synthesise the most general norm or value, if this is possible at all, that can be used in an ethically designed system.

As regards this second question, ethical systems design combines, as we have seen above, probabilistic outcomes with conditional dependencies. These dependencies can be formulated in three categories: context, value and rule dependencies.[16] Context means that the economic circumstances in which a decision is taken matter. A typical example of this would be an English clause that may be innocuous for normal companies but it will violate Article 102 TFEU when used by a dominant undertaking.[17] Values mean that within the boundaries of legally acceptable actions, different values can lead to different decisions. Companies may, for example, decide to focus on maximising allocative and procedural efficiency whereas others may focus on dynamic efficiencies. Cross-subsidisation between business units or products will also involve value choices between the welfare of various groups of consumers.[18] Rule dependency is closest to actual legal reasoning in the strict syllogistic sense. However, when applicability of the rule is made increasingly dependent on non-legal contingencies, such as the ability to demonstrate appreciable welfare reducing effects, problems arise as the conditionality transforms from a rule dependency into a context dependency. The exact point where this transformation is such that the condition must be characterised as a context dependency instead of a rule dependency is fundamentally unclear and this makes it nigh impossible to program. The fact that they are dependencies means that within these categories conditions must be defined as false or positive tests and between the three categories such tests must be defined (e.g. whether a positive test for context trumps a false test for values). This will prove to be a challenging task, as setting the wrong conditions or, rather, questions to ask in order to test whether the condition applies, impacts the functioning of the ethical system. It is, to illustrate the point by means of an example, problematic to have a condition that asks whether there is price fixing if there is another condition asking whether the actions are in accordance with the law. There are circumstances

16 C.D. Hafner and D.H. Berman, 'The Role of Context in Case-Based Legal Reasoning: Teleological, Temporal, and Procedural', (2003) 10 Artificial Intelligence and Law (1–3), 20.

17 Case 85/76 *Hoffmann-La Roche & Co. AG v Commission* [1979] ECLI:EU:C:1979:36, para 104. This case can also be seen as an example of the difficulty of distinguishing between context and rules, as we could also construe the question on whether or not there is dominance as one on the applicable rule.

18 See the debate on aggregation levels for consumer welfare, C. Townley, 'The Relevant Market: An Acceptable Limit to Competition Analysis?', available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1894815 (last accessed: 30 November 2017).

where companies may be legally required to fix prices.[19] This means that all tests must be formulated at the same level of aggregation. Most importantly, however, it must be possible to reduce a competition law appraisal to a limited set of questions with a clear relation between these questions. Context, for example, cannot be the hierarchically superior to conditionality in one case and be inferior to rule and / or value dependencies in another.

2. Competition Law and Machine Learning

The reader of this volume will be familiar with the basic outlines of competition law. They may be less familiar with machine learning. This Section will describe both phenomena insofar as they are likely to interact.

As seen in the introduction of this Chapter, machine learning is particularly good with Big Data. It manages to add value to very large datasets and can identify patterns. Such patterns could influence decision making and one area where this is already happening is in high frequency trading.[20] This shows that we can expect machine learning to have a direct impact in relation to price setting, in particular in markets with rapidly fluctuating prices such as airline tickets.[21] Whereas most markets still rely on human actions to define prices, it seems reasonable to expect more algorithmic price setting in the future, if only because machine learning allows for more individualised prices that better reflect willingness to pay and thus yield higher profitability for the suppliers.[22]

It therefore seems sensible to focus on the competition law in relation to price setting. This focus, however, hardly narrows down the scope of the research effectively, given competition law's preoccupation with prices and their formation. In this regard, we can depart from the assumption that the competition law directed at private entities, undertakings in the EU jargon, is about market power. This is helpful because market power is defined in terms of power

19 E.g. Joined cases C-184/13 to C-187/13, C-194/13, C-195/13 and C-208/13 *API - Anonima Petroli Italiana SpA v Ministero delle Infrastrutture e dei Trasporti* [2014] ECLI:EU:C:2014:2147, where Italian transport companies were required to fix minimum transport tariffs pursuant to Italian law.

20 N. Coombs, 'What Is an Algorithm? Financial Regulation in the Era of High-Frequency Trading', (2016) 45 Economy and Society (2), available at: https://doi.org/10.1080/03085147.2016.1213977 (last accessed: 30 November 2017).

21 C.S.M. Currie et al, 'Dynamic Pricing of Airline Tickets with Competition', (2008) 59 Journal of the Operational Research Society (8), 1026, available at: doi:10.1057/palgrave.jors.2602425 (last accessed: 30 November 2017).

22 Federal Trade Commission, Big Data: A Tool for Inclusion or Exclusion? Understanding the Issues, available at: www.ftc.gov/reports/big-data-tool-inclusion-or-exclusion-understanding-issues-ftc-report (last accessed: 30 November 2017), 8-9.

over prices.[23] Understood in this sense, Article 101 TFEU essentially prohibits coordination that would create market power. Article 102 TFEU prohibits the exploitation of such market power or the use of it to block competitors from a market.[24] Market power that is created by means of coordination will often be exploited by means of charging higher prices.[25] The corollary in the context of Article 102 TFEU arises when market power exists and certain prices amount to abuse of dominance. The archetypical type of pricing that is prohibited under Article 102 TFEU relates to excessive prices, i.e. the classic monopoly prices that form the litmus test for market power. However, given that in real life situations of perfect market power do not exist, even dominant companies will set their prices relative to the prices charged and paid by others. These could be companies in neighbouring markets or companies perceived to be potential competitors, and of course consumers. In this situation, the relative element in the price formation could take the form of what is called limit pricing, i.e. setting prices at a level that deters entry. On a similar note, price discrimination also involves an element of relativity, in that excessive discrimination may induce switching behaviour, for example to different geographical markets. The fact that such prices and their formation entail an element of relativity, makes them ideal for machine learning or Big Data analytics. The availability of large, accurate, diverse and valuable data will enhance the potential of Big Data analytics for exploitative price setting even further.

These four aspects of the data translate into what are colloquially known as the four V's that make data Big Data: volume, veracity, variety, and velocity.[26] The volume of data relates to the absolute and relative size of the dataset. Given that machine learning requires datasets for training the algorithm, the volume of training data will allow for a more accurate operation and self-learning of the algorithm.[27] Veracity refers to the degree to which the data actually match the

23 A standard definition can be accessed at the OECD website and refers to the ability to raise prices above the competitive level. See https://stats.oecd.org/glossary/detail.asp?ID=3256 (last accessed: 30 November 2017).

24 Cf. the Speech by then Competition Commissioner, Mario Monti, 'Market Definition as a Cornerstone of EU Competition Law', available at: europa.eu/rapid/press-release_SPEECH-01-439_en.pdf (last accessed: 30 November 2017). For a discussion see L. Ortiz Blanco, *Market Power in EU Antitrust Law,* (Hart Publishing, 2011).

25 A quick overview of the Commission's decision making practice in this regard reveals that collusive price fixing is at the heart of all the cases in the Commission's top ten highest fines. See ec.europa.eu/competition/cartels/statistics/statistics.pdf (last accessed: 30 November 2017), para 1.5.

26 IEEE, Machine Learning with Big Data: Challenges and Approaches, (2016), available at: http://ieeexplore.ieee.org/document/7906512/?reload=true (last accessed: 30 November 2017). M.E. Stucke and A.P. Grunes, *Big Data and Competition Policy,* (Oxford University Press, 2016), 16-28, who actually refer to volume, velocity, variety, and *value* (instead of veracity).

27 P. Domingos, 'A Few Useful Things to Know about Machine Learning', para 9, available at: https://homes.cs.washington.edu/~pedrod/papers/cacm12.pdf (last accessed: 30 November 2017).

real-life situations. It is not difficult to imagine how a flawed dataset (containing, for example, inflated prices of competitors) will result in a poorly functioning algorithm. Variety is important, and some consider it of prime importance, for two reasons. First, data relating to one aspect, such as prices, may be of low veracity, but when there is also data relating to, for example, numbers of units sold, the possible flaws in the price data will be revealed sooner. Second, being able to extrapolate between more than one dataset (or having data pertaining to more than one aspect), increases the chance of identifying latent relations. Velocity, finally, turns normal data into Big Data that can be put to work for another intuitive reason: most decisions taken on the basis of machine learned analysis are part of what is called nowcasting. This means predicting what is going to happen now.[28] Needless to say that having outdated, for example last December's, data on prices is not going to help setting prices in the current holiday season when a recession has occurred in the meantime. It is easy to imagine why it is attractive to set prices using Big Data analytics, precisely because it takes out at least part of the element of unpredictability and discovery in competition.[29]

Interestingly, the coordination that is prohibited by Article 101 TFEU can also involve the exchange of information on prices, and this is precisely what is also of interest from a machine learning perspective. In a Big Data environment, such coordination does not have to be explicit, given that machine learning is able to detect pricing signals, as well as the responses to them. This means that policing a cartel becomes far easier for the members of the cartel, potentially increasing cartel longevity. However, short of formal cartels, machine learning would also increase the transparency of the market to the extent that even in deconcentrated industries the availability of data and its analysis allows the companies to act as if they are in an oligopoly. To put it really bluntly, this would mean that it becomes possible to *create* oligopolistic interdependence, raising the question whether this would need to be addressed by competition law.[30] The availability of Big Data analysis of large amounts of accurate, (near) real-time data on prices and sales or output would enable a situation of tacit collusion or conscious parallelism to be brought about, even in the absence of any formal collusion.

28 M.E. Stucke and A.P. Grunes, note 26, 285–287.

29 For competition as a process of discovery see F.A. von Hayek, *Wettbewerb als Entdeckungsverfahren*, (Freiburger Studien; Mohr-Siebeck, 1969).

30 This is explained in A. Ezrachi and M. E. Stucke, note 10, 56 *et seq*.

This, to my mind, makes it worthwhile to look at the competition law of information exchanges. This obviously doesn't exclude other areas of competition law that may intersect with Big Data and machine learning.[31]

3. The Competition Law of Information Exchanges as Rules, Context, and Values

Information exchanges are problematic between competitors given that they are at odds with the basic premise of competition law set out in *Suiker Unie*: independent or autonomous decision making by the entities engaged in competition.[32] Such information may impact the decision making in the companies on commercial actions, such as setting output or prices. A company having knowledge of, say, the price increase that a competitor contemplates will take this information into account. This cannot be problematic, given that the same company will also take this information into account once the price has been communicated publicly. In the Court's words, the company would simply be adapting its own actions intelligently to the actual or anticipated actions by the competitor. The only difference being that the information communicated relates to future versus actual prices. In this regard, we must also point out that information exchanges may be perfectly sensible. They allow better planning, and reduce market failures due to information asymmetry, to name but a few advantages.[33] This means that in terms of rules and values, no clear rule can be devised in general on this level. Further contemplating the competition law of information exchanges, we learn that the increased transparency can reinforce collusion by making detection of cheating on the cartel easier, as well as function as a signalling device to facilitate collusion.[34] We also find that bright lines are hard to come by and what we have are general categorisations.[35]

31 Stucke and Grunes, note 26, 42 *et seq* mention several issues, access to data being a primary concern.

32 Joined cases 40 to 48, 50, 54 to 56, 111, 113 and 114/73 *Coöperatieve Vereniging Suiker Unie UA and Others v Commission* [1975] ECLI:EU:C:1975:174, paras 173, 174.

33 OECD Policy Roundtables, Information Exchanges between Competitors under Competition Law, (2010), DAF/COMP(2010)37, available at: www.oecd.org/competition/cartels/48379006.pdf (last accessed: 30 November 2017), 9, 10.

34 OECD Policy Roundtables, Unilateral Disclosure of Information with Anticompetitive Effects, (2012), DAF/COMP(2012)17, available at: www.oecd.org/competition/cartels/48379006.pdf (last accessed: 30 November 2017), 11, 12.

35 One such categorisation being the exchange of information that is ancillary to the collusion (i.e. as an enforcement mechanism). This would translate into a context dependency whereby the algorithm would be informed of the presence, or not, of a collusive agreement. Cf. B. Meyring, 'T-Mobile: Further Confusion on Information Exchanges between Competitors: Case C-8/08 T-Mobile Netherlands and Others,' (2009) 1 Journal of European Competition Law and Practice (1), 32.

What then, makes the exchange of information problematic in specific cases? To phrase this in Big Data and machine learning terms: what should the price setting algorithm avoid when it responds to price increases by competitors or what should it avoid doing when setting and communicating its own prices? This is relevant because prices can be an effective signalling mechanism, as was shown in the papers by Cramton and Schwarz on the FCC's spectrum auctions.[36] The effects signalling can have on automated price setting are shown nicely by the anecdote on the $ 23 million book on fruit flies on Amazon.[37] This was the price reached before humans pulled the plug on the automated pricing algorithm that Amazon used and that fixed the price of a good relative to prices charged for the same good by other retailers.

Back to the competition law, how will an algorithm avoid infringing competition law? For starters, it would need to know whether the product it is pricing is subject to cartelisation. Needless to say, this will be sensitive information, but it is information that can be entered in the form of simple context dependent question that can have an unambiguous false or positive answer. However, even in the absence of such collusion, the exchange of information can be problematic, as is shown by the *Woodpulp* case. In this case the Commission treated a series of parallel price increases as a violation of competition law as it considered them to amount to a concerted practice.[38] The Court, however, reached a different conclusion and started out by essentially reiterating the *ICI/Dyestuffs* rule according to which parallel behaviour amounts to an indicator of forbidden collusion, but it does not constitute evidence of an infringement.[39] It thus becomes relevant to examine whether there are alternative explanations for the parallelism in prices. As it turned out, such alternative explanations could indeed explain the parallel prices: apart from industry practice, the fact that the market could be characterised as 'a group of oligopolies-oligopsonies consisting of certain producers and of certain buyers'.[40] This was explained on the basis of a number of characteristics of the product in question and the ensuing production processes it would be used in. The expert findings adduced by the accused firms and accepted by the Court show not only intricate understanding of the industry,

36 P. Cramton and J.A. Schwarz, 'Collusive Bidding: Lessons from the FCC Spectrum Auctions', (2000) 17 Journal of Regulatory Economics 229, 233 *et seq*.

37 The anecdote is set out nicely on www.michaeleisen.org/blog/?p=358 (last accessed: 30 November 2017).

38 Commission Decision 85/202, *Woodpulp*, OJ 1985 L 85/1, paras 82, 83.

39 Joined cases C-89/85, C-104/85, C-114/85, C-116/85, C-117/85 and C-125/85 to C-129/85 *A. Ahlström Osakeyhtiö and others v Commission* [1993] ECLI:EU:C:1993:120, paras 70-72.

40 Ibid, paras 102, 126.

they also evidence detailed knowledge of theories and practice of oligopolistic interdependence.[41]

The rule on how an algorithm can (or cannot) respond to the prices set by competitors thus becomes dependent on context, as well as rule conditions, with no clear boundary or hierarchy set between the two. As regards a rule dependency, we may also observe that the rule itself becomes contingent on economic phenomena that may be very difficult if not impossible to translate into structured logic. Whether or not a market can be characterised as an oligopoly turns on a combination of economic and factual insights into a market, as well as their appraisal. In addition, oligopolistic traits could also be inferred from the way a market appears to operate. This is in fact what happened partly in *Woodpulp*, with the Court accepting that the mutual dependency of woodpulp producers and paper producers introduces a shared desire to create greater security in both sides of the market. This, to my mind, sits uneasy with the logic of the Court in *T-Mobile* and *Dole*.

In *T-Mobile* information was exchanged on the desire of some of the mobile telecom operators in the Netherlands to reduce and scrap subsidies on mobile handsets.[42] This was found to be a restriction by object by the Netherlands competition authority, whose findings were challenged. The Court reiterated the paradigm we know from *Suiker Unie* and then held that: "at paragraphs 88 *et seq* of *Deere v Commission,* the Court therefore held that on a highly concentrated oligopolistic market, such as the market in the main proceedings, the exchange of information was such as to enable traders to know the market positions and strategies of their competitors and thus to impair appreciably the competition which exists between traders. It follows that the exchange of information between competitors is liable to be incompatible with the competition rules if it reduces or removes the degree of uncertainty as to the operation of the market in question, with the result that competition between undertakings is restricted."[43]

Two things are striking about this case. First, the Court draws a parallel to the UK Agricultural Exchange cartel, the *John Deere* case that is mentioned.[44] This (implicit) categorisation of the case is not reasoned by the Court and does

41 Ibid, paras 102-125. For an appraisal of the different concepts law and economics use to describe these phenomena see E.J. Green, R.C. Marshall and L.M. Marx, 'Tacit Collusion in Oligopoly', in R.D. Blair and D.D. Sokol (eds), *The Oxford Handbook of International Antitrust Economics*, (Vol. 2, Oxford University Press, 2014).

42 Case C-8/08 *T-Mobile Netherlands BV, KPN Mobile NV, Orange Nederland NV and Vodafone Libertel NV v Raad van bestuur van de Nederlandse Mededingingsautoriteit* [2009] ECLI:EU:C:2009:343.

43 Ibid, paras 34, 35.

44 Case C-7/95 P *John Deere Ltd v Commission* [1998] ECLI:EU:C:1998:256.

not follow as such from the preliminary reference. Implicit reasoning makes it more difficult to translate the context rule (information exchanges in highly concentrated oligopolistic markets are prohibited) into a rule that could be used in a normative framework. As Meyring has suggested,[45] there may indeed be a new category of information exchanges, but the problem is that the case file does not suggest that this information was ancillary to a cartel like it was in *John Deere*.[46] The second thing is the lack of clarity of the reasoning. We see this in the use of words like 'appreciably', that entail an open value judgment and phrases like 'liable to be incompatible', which liability is conditional on 'removing the degree of uncertainty as to the operation of the market in question'. To start with the latter, this would be a rule dependent on an ill-defined context with the context being potentially all-encompassing. Moreover, it is not clear at all what the liability itself relates to. A liability means a risk, the chance that something bad may happen. This means that the exchange of information *could* be incompatible with competition law if the conditions are met. Does this mean that we have to instruct the algorithm to take a chance?

This open-worded phrasing can also be seen in the most recent case on the exchange of information in the banana cartel. In *Dole*, one of the exculpatory arguments put forward by the companies involved was that the information exchanged could not have an effect on price setting given that this information was available to only one employee who took part in a price setting process that involved other employees as well.[47] The Court again gave these arguments short shrift while referring back to *T-Mobile* and essentially confining the reasoning to the statement that the employee involved in the exchange of information participated in the internal pricing meetings.[48] This, in the light of the Court's reasoning in *T-Mobile*, was enough to create a competition law liability. What this participation amounted to was not considered in the judgment of the Court, nor the General Court.[49] This effectively turns the participation requirement in connection with the liability into a black box. Machine learned Big Data *will* discover patterns in pricing actions by competitors, just like self-learning algorithms have shown themselves to be able to understand not only the rules of chess and go, but also the human quirks in playing these games. The rule in *Dole* makes it impossible to tell an algorithm what it can and cannot do with

45 B. Meyring, note 35, 32.

46 F. Ferretti, *EU Competition Law, the Consumer Interest and Data Protection: The Exchange of Consumer Information in the Retail Financial Sector,* (Springer, 2014), 40.

47 Case C-286/13 P *Dole Food Company, Inc. and Dole Fresh Fruit Europe v Commission* [2015] ECLI:EU:C:2015:184, para 105.

48 Ibid, para 131.

49 Case T-588/08 *Dole Food Company, Inc. and Dole Fresh Fruit Europe v Commission* [2013] ECLI:EU:T:2013:130.

such knowledge of patterns in setting its own prices. Even more fundamentally, it makes it impossible for the designer of the algorithm to include a rule on what it can and cannot do.

The Court essentially treats the information exchange as the equivalent of a classic cartel.[50] Whilst this makes sense in the light of the facts in *Dole* (and, to a lesser extent, *T-Mobile*), this framing of information exchanges skews the values attached to the factual phenomenon that may be unproblematic towards an understanding where all information exchanges are a violation of the rule.[51] As a result, information exchanges will be treated as invariably bad and thus to be avoided. This would fly in the face of economic orthodoxy that holds that market transparency, and thus the availability of information, is a prerequisite for perfect competition.[52] It would also obviate the efficiencies that can be attained with the exchange of information.

The problematic nature of this framing can be gleaned from the Commission's treatment of the exchange of information on 'future conduct regarding prices' and 'intended future prices'.[53] In a world of Big Data analytics, such intended or future prices can be extrapolated from previous actions, as algorithms cannot deviate from the programmed course.[54]

4. Concluding Remarks

We have seen how dynamic pricing using algorithms is a reality and is likely to become more relevant in the near future. Dynamic pricing is the essence of competition in that it exploits information on willingness to pay in an attempt to maximise profits. However, the information on willingness to pay comes from essentially two sources: the consumers and the competitors. The problem with information coming from competitors is that it amounts to a competition law liability, which means that a pricing algorithm must be trained to avoid pricing actions that could be construed as collusion contrary to Article 101 TFEU. This

50 Th. Lamprecht, 'Bananas and Public Announcement: Defining the Boundaries of Anti-Competitive Information Exchanges,' (2014) 26 Sa Mercantile Law Journal (Sa Tydskrif Vir Handelsreg) (2), 450, 459.

51 Note that a similar framing takes place in the Commission's Guidelines on the Applicability of Article 101 of the Treaty on the Functioning of the European Union to Horizontal Co-operation Agreements, [2011] OJ C 11/1, paras 55-71.

52 Note that economics acknowledges that in imperfect markets remedial imperfections, such as lower levels of transparency, may be efficiency enhancing as put forward most famously by Clarke, see S. Stroux, *US and EC Oligopoly Control,* (Kluwer Law International, 2004), 8.

53 Commission, Guidelines on the Applicability of Article 101 of the Treaty on the Functioning of the European Union to Horizontal Co-operation Agreements, note 51, paras 73, 74.

54 As is nicely illustrated by the anecdote on the Amazon book, note 37.

appears to be very difficult on the basis of competition law as it stands in the EU.[55] We find that context, value, and rule dependencies are not clearly defined and related to another. All in all, the law may be clear *prima facie* in the narrow context of a classic cartel, but it fails to address the nuance that is needed if we want a balanced appraisal outside this context. Indeed, the extremes of the debate in both economics and law are well-known and largely undisputed. The problem, however, is that most exchanges will be characterised as somewhere in the middle. This results in a grey area that, for the moment, offers insufficient guidance. Whether this is a problem depends on the degree to which competition law wants to encourage such algorithmic price setting and, more specifically, competition. Asking algorithms to behave like good citizens first requires competition law to come to a more structured analysis of what it takes to be a good citizen.

55 Th. Lamprecht, note 50, who notices a development in this regard.

Chapter 4:

Antitrust in Digital Markets in the EU: Policing Price Bots

*Jan Blockx**

1. Introduction

Online markets are transparent in ways which would have been unimaginable only a few years ago. If a vendor raises the price of an item on an online marketplace, other vendors can find out instantly, thanks to all sorts of cookies and monitoring mechanisms incorporated in online technologies. According to the Staff Working Document accompanying the European Commission's Final Report on the E-Commerce Sector Inquiry, about half of the retailers which responded to the Commission's questionnaire track online prices of competitors and about two-thirds of them do so using automatic software programmes.[1] This software, often referred to as 'spiders', 'scrapers', or 'crawlers', can be created either by third-party software specialists or by the companies themselves.

Furthermore, using pricing robots, some vendors will automatically adapt prices based on the prices they track online. These pricing robots determine prices using algorithms based on factors which are meant to reflect supply and demand, including the perceived prices of competitors. Advances in artificial intelligence (AI) may mean that these robots, through self-learning, may in the future even develop new strategies to set prices.

The increased transparency that comes with price monitoring and the speed with which pricing robots can adapt prices are factors commonly identified with perfect competition. However, other aspects of digital markets put into question this qualification. These include concentration levels in some digital markets,

* University of Antwerp. I would like to thank Anne-Marie Van den Bossche, Massimiliano Kadar, Johan van de Gronden and an anonymous reviewer for comments on an earlier version of this Chapter. All views expressed and any remaining errors are of course mine.

1 Commission, Staff Working Document Accompanying the Final Report on the E-Commerce Sector Inquiry, SWD/2017/154 final, available at: http://ec.europa.eu/competition/antitrust/sector_inquiry_swd_en.pdf (last accessed: 31 August 2017), para 149.

but also the disparity between price transparency on the suppliers' side of the market and price transparency on the buyers' side: retailers may be better at monitoring each other's prices than their customers are. In those circumstances, the increased transparency and flexibility may not lead to increased competition, but instead, because of the repeated Prisoner's Dilemmas the vendors face, to price increases and reduced offerings.[2]

It is important not to underestimate what customers of online retailers can do to counteract any restrictions of competition that may result from these characteristics. Indeed, any supra-competitive margins that online retailers make may create opportunities for third-parties to offer products and services to help consumers get the best deal: there are numerous price trackers and price comparison websites which can benefit consumers.[3]

Nevertheless, anecdotal evidence shows that the use of pricing robots can lead to prices which are clearly not established by free competition: there are, for example, several reported incidents of book prices on Amazon spiralling out of control because of pricing algorithms, the most famous one resulting in a copy of Peter Lawrence's *The Making of a Fly* being advertised for USD 23,698,655.93.[4]

2. The Challenges of Algorithmic Collusion

A number of authors have in recent years stated that current antitrust rules may not be able to police supra-competitive price levels (or indeed other undesirable market outcomes) which may result from the use of price robots.[5] The focus of most of these authors has been on the antitrust rules in the United States, although some also discuss the rules in Europe. Most influential have been Ezrachi and Stucke who have argued that "when computer algorithms and machines take over the role of market players, the spectrum of possible infringements may go beyond traditional collusion"[6] and that in some cases this

2 The Background Note of the Secretariat Prepared for the OECD Competition Committee's Round Table on 'Algorithms and Collusion' on 21-23 June 2017, available at: https://one.oecd.org/document/DAF/COMP(2017)4/en/pdf (last accessed: 31 August 2017), 27 summarizes literature on collusion by algorithms in iterated Prisoner's Dilemmas, which shows that the immediate reaction of algorithms favours tit-for-tat strategies.

3 The comparison shopping business has boomed in recent years, creating household names such as booking.com, TripAdvisor and Google Shopping, but also causing competition concerns of its own. Consumer organisations and sectoral regulators have therefore set up their own websites or organised accreditation.

4 As described on www.michaeleisen.org/blog/?p=358 (last accessed: 31 August 2017).

5 See the literature referenced in footnotes 6, 8, 18, and 29 below.

6 A. Ezrachi and M.E. Stucke, 'Artificial Intelligence & Collusion: When Computers Inhibit Competition', (2015), available at: https://www.law.ox.ac.uk/sites/files/oxlaw/cclpl40.pdf (last accessed: 31 August 2017), 7.

"may result in AI self-learning escaping legal scrutiny."[7] Ezrachi and Stucke's paper on AI and collusion has been very influential and won one of the Antitrust Writing Awards of the Institute of Competition Law in 2016. Also, their book *Virtual Competition*, which partially covers the same topic, has been the subject of much debate since its publication at the end of 2016.[8] The enforcers' interest in the topic has also become apparent.[9]

These warnings about the risks of collusion in virtual markets are not to be taken lightly. If algorithms determine prices, it may be much more difficult to know that prices have reached a supra-competitive level: tacit collusion will be much more efficient if conducted by computers. Detection of anti-competitive practices may also be more difficult if there are no humans involved who may act unpredictably or even 'irrationally' (e.g. by experiencing anger when losing customers to competitors, or guilt about ripping off their customers).

Another question is whether, even if detected, current antitrust rules allow for sufficient intervention to stop price bots from tacitly colluding contrary to the interest of consumers. Antitrust enforcers have normally considered it permissible for companies to react intelligently to the market behaviour of their competitors, even if in oligopolistic markets this implies that pricing is at a supra-competitive level.[10] Some authors have argued that tacit collusion is just as harmful as explicit collusion and should therefore be banned,[11] but in practice it is difficult to determine when unilateral behaviour, that is driven by the rational self-interest which is the basis of our economic model, would become inacceptable because it implies tacit collusion. However, tacit collusion may become a much more pressing issue in the time of pricing by (self-learning)

7 Ibid, 25.

8 A. Ezrachi and M.E. Stucke, *Virtual Competition: The Promise and Perils of the Algorithm-Driven Economy,* (Harvard University Press, 2016).

9 In addition to other references in this Chapter see the Background Note of the Secretariat Prepared for the OECD Competition Committee's Round Table on 'Algorithms and collusion' on 21-23 June 2017, note 2.

10 The Court of Justice of the European Union (CJEU) has held that Article 101 TFEU "does not deprive economic operators of the right to adapt themselves intelligently to the existing and anticipated conduct of their competitors." See case C-40/73 *Suiker Unie and Others v Commission* [1975] ECLI:EU:C:1975:174, para 174 and case C-89/85 *Ahlström Osakeyhtiö and Others v Commission* [1993] ECLI:EU:C:1993:120, para 71.

11 One of the most vocal advocates used to be Richard Posner. See R. Posner, *Antitrust Law,* (The University of Chicago Press, 2001), in particular Chapter 3 'Price Fixing and the Oligopoly Problem', 51-100. Posner also argued that tacit collusion could be covered by Section 1 of the Sherman Act. See in particular R. Posner, 'Oligopoly and the Antitrust Laws: A Suggested Approach', (1968) 21 Stanford Law Review, 1562, although the vast majority of scholars (and it seems Posner himself today) disagree. For a discussion of the situation under EU law see N. Petit, 'The Oligopoly Problem in EU Competition Law', in I. Liannos and D. Geradin (eds), *Research Handbook in European Competition Law,* (Edward Elgar, 2013), 259, also available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1999829 (last accessed: 31 August 2017).

algorithms: because of their all-seeing eye, processing power and lack of human biases, price bots could make tacit collusion the norm rather than the exception.

It is certainly true that the current antitrust rules do not prohibit all behaviour which leads to harm to consumer. It is even more true that the current rules cannot foresee every possible technological (r)evolution and its impact on competition. There are and will be gaps in enforcement. To determine how serious the problem is, we should nevertheless first analyse the size and depth of the gap.

Indeed, it has been argued that some of the gaps in enforcement that have been identified in European competition law in the past were smaller than perceived. In the early 2000s, there was a perceived gap in the first EU Merger Regulation's ability to stop the creation of non-collusive oligopolies, which resulted in a reform of the substantive test for mergers in the EU in 2004.[12] But, although the Commission has claimed that the closing of the gap in the first EU Merger Regulation has allowed it to assess 'numerous' gap cases,[13] it has been argued by others that at least some of these cases could also have been dealt with under the first EU Merger Regulation.[14] More recently, a discussion has taken place in Europe on the need to require notification of minority shareholdings because of a perceived gap in enforcement there,[15] but the European Commission seems

12 See Commission, Green Paper on the Review of Council Regulation 4064/89, COM/2001/0745 final, available at: http://ec.europa.eu/competition/consultations/2002_council_regulation/index.html (last accessed: 31 August 2017).

13 Commission, Staff Working Document Accompanying the White Paper Towards More Effective EU Merger Control of 9 July 2014, SWD/2014/221 final, available at: http://ec.europa.eu/competition/consultations/2014_merger_control/staff_working_document_en.pdf (last accessed: 31 August 2017), para 13.

14 The German Federal Cartel Office, for example, was of the view that the first 'gap' case the Commission claims it dealt with, case M.3916 *T-Mobile / Tele.ring* in 2006, might just as well have been addressed under the previous substantive test. See OECD Competition Committee Working Party No. 3 on Cooperation and Enforcement, Roundtable on the Standard for Merger Review, with a Particular Emphasis on Country Experience with the Change of Merger Review Standard from the Dominance Test to the SLC/SIEC Test, (2009), available at: www.bundeskartellamt.de/SharedDocs/Publikation/EN/Diskussions_Hintergrundpapiere/OECD_2009.05.28Standard_Merger_Review.pdf?__blob=publicationFile&v=4 (last accessed: 31 August 2017), para 11. M.B. Coate, 'Did the European Union's Market Dominance Policy Have a Gap? Evidence from Enforcement in the United States', available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1410246 (last accessed: 31 August 2017), also argues that when applying the previous EU substantive review test to US enforcement action, the gap in EU enforcement appeared relatively small.

15 See Commission Staff Working Document, note 13.

in the meantime to have abandoned the idea of reforming the EU Merger Regulation to cover possible anti-competitive minority shareholdings.[16]

This Chapter discusses what tools are available in EU antitrust law to tackle collusion by price bots, based on the existing legislation, the case law of the European courts, and the practice of the European Commission. My aim is to assess how deep and wide the gap in enforcement is, so that virtual competition, rather than causing us vertigo, can be ensured by the optimisation of the existing antitrust enforcement toolbox.

In their paper on AI and collusion, Ezrachi and Stucke consider two important legal issues which would raise enforcement challenges: (i) evidence of intent and a horizontal agreement and (ii) potential liability.[17] These two issues will be the basis for my analysis below.

I will argue that the case law of the CJEU on the substance of Article 101 TFEU does not strictly require evidence of intent and that the standard to find horizontal collusion in the sense of Article 101 TFEU is fairly low. As to the question of potential liability, I will argue that undertakings can be held liable for the actions of the price bots which they design or use and that the toolbox of the European Commission is large enough to even stop practices for which no undertaking is to blame. As a consequence, while tacit collusion will continue to present a gap or 'crack' in enforcement, there are a number of tools readily available to avoid this turning into a chasm.[18]

3. Evidence of Intent and a Horizontal Agreement

Ezrachi and Stucke's first contention is that in some scenarios of collusion by pricing bots there is insufficient evidence of a horizontal agreement (an agreement between competitors) or of an intent to change market dynamics in order to find an infringement. Below I will set out how the case law of the CJEU is sufficiently flexible to allow for a finding of a horizontal agreement or a

16 While the jurisdiction over acquisitions of minority shareholdings was the main topic in the Commission's 2014 White Paper, Towards More Effective EU Merger Control, available at: http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1406814408042&uri=CELEX:52014DC0449 (last accessed: 31 August 2017), Commissioner Vestager, at the 2016 ABA Spring Meeting, questioned the administrative burden created by this. The Commission's 2016 Consultation 'Evaluation of Procedural and Jurisdictional Aspects of EU Merger Control', available at: http://ec.europa.eu/competition/consultations/2016_merger_control/index_en.html (last accessed: 31 August 2017) did not cover this topic anymore.

17 See Ezrachi and Stucke, note 6, 7-8.

18 Which is a fear expressed by S.K. Mehra, 'Antitrust and the Robo-Seller: Competition in the Time of Algorithms', (2016) 100 University of Minnesota Law Review, 1323, 1340.

concerted practice even by pricing bots, and why evidence of intent is less vital in the EU than Ezrachi and Stucke suggest.

3.1. Communication of Sensitive Commercial Information Can Result in a Concerted Practice

The language of European antitrust law is undoubtedly anthropocentric.[19] The European courts have defined the notion of agreement in the sense of Article 101 TFEU as centring "around the existence of a concurrence of wills between at least two parties, the form in which it is manifested being unimportant so long as it constitutes the faithful expression of the parties' intention."[20] This wording seems to be entirely inapplicable in the world of robots and AI.

However, in practice, the European courts have focused their analysis of the notion of agreement on the 'expressions' of the parties, rather than on any presumed or postulated 'wills' or 'intentions' which would exist behind those expressions. What is more, any thoughts or intentions which a party might privately entertain are not determinative for the existence of an agreement; what matters is what the party expressed to the other party.[21] Rather than 'wills and 'intentions', the focus of EU antitrust is therefore on 'expressions' and 'communications', clearly things which robots and AI are capable of.

A second anthropocentric aspect of the above notion of agreement lies in the 'concurrence' of wills which the notion of agreement entails. The meaning of this notion goes to the heart of what should be viewed as 'collusion' in antitrust law. While it is clear that purely unilateral conduct is not caught by Article 101 TFEU,[22] it is much harder to define which conduct is purely unilateral and which is not. The European courts have struggled with this question a lot but what

19 The same is of course true of US antitrust law: see Mehra, note 18, 1329. Ezrachi and Stucke, note 8, 42 and Ezrachi and Stucke, note 6, 7 also refer to a 'human prism'.

20 Case T-41/96 *Bayer v Commission* [2000] ECLI:EU:T:2000:242, para 69.

21 In case C-29/83 *CRAM v Commission* [1984] ECLI:EU:C:1984:130, [1984] ECR 01695 and ECR 01703-4, para 26, the CJEU therefore held that the fact that Schiltz "never intended to observe the agreement" was irrelevant to the question of whether it concluded an agreement or not. In case T-41/96 *Bayer v Commission* [2000] ECLI:EU:T:2000:242, para 156, the General Court analysed whether Bayer's dealers "wished to pursue Bayer's objectives or wished to make Bayer believe that they did": if they had done the latter that could have made them party to an agreement, even if they had private reservations about it. Admittedly, the position of the CJEU on appeal was more ambiguous: compare paras 121 and 122 of Joined cases C-2/01 P and C-3/01 *BAI v Bayer and Commission* [2004] ECLI:EU:C:2004:2.

22 Case C-107/82 *AEG v Commission* [1983] ECLI:EU:C:1983:293, para 38; Joined cases C-25/84 and C-26/84 *Ford and Ford Europe v Commission* [1985] ECLI:EU:C:1985:340, para 21; case T-43/92 *Dunlop Slazenger v Commission* [1994] ECLI:EU:T:1994:79, para 56; case T-41/96 *Bayer v Commission* [2000] ECLI:EU:T:2000:242, para 66.

comes out of the case law is that the requirement of reciprocity is at least very limited. In order for there to be an 'agreement' in the sense of Article 101 TFEU, it is sufficient that one party sends an invitation to collude to the other party[23] and that the other party tacitly acquiesces to that invitation. Tacit acquiescence of the recipient of the invitation arises if its business conduct is influenced by that invitation.[24]

In order to establish a 'concerted practice' in the sense of Article 101 TFEU, the communication from the first party does not even need to be an invitation to collude: the mere communication of commercially sensitive information from one party to another suffices. Article 101 TFEU strictly precludes any direct or indirect contact between actual or potential competitors which may influence their conduct on the market.[25] If the recipient of such commercially sensitive information becomes aware of its content, it will be regarded as having tacitly assented to a common anti-competitive practice.[26] The recipient can only escape liability by publicly distancing itself from the content of the communication or reporting it to the authorities.[27]

Applied to the digital world this means that a concerted practice in the sense of Article 101 TFEU can arise if one trader communicates to another trader commercially sensitive information which may influence the conduct of the recipient, such as pricing information. There are different ways in which this can happen.

If multiple competing traders use the same supplier for the pricing software and this software becomes better ('learns') using the data obtained from the traders, this can clearly lead to hub-and-spoke collusion.[28] Price trackers embedded in

23 On the need for an invitation see Joined cases C-2/01 P , note 21, and C-3/01 *BAI v Bayer and Commission* [2004] ECLI:EU:C:2004:2, para 102.

24 Cases C-338/00 P *Volkswagen v Commission* [2003] ECLI:EU:C:2003:473, para 67 and C-74/04 P *Commission v Volkswagen* [2006] ECLI:EU:C:2006:460, para 39.

25 Cases C-8/08 *T-Mobile Netherlands and Others* [2009] ECLI:EU:C:2009:343, para 33 and C-74/14 *Eturas and Others* [2016] ECLI:EU:C:2016:42, para 27.

26 Case C-74/14 *Eturas and Others* [2016] ECLI:EU:C:2016:42, para 44.

27 Established case law since case T-6/89 *Enichem Anic v Commission* [1991] ECLI:EU:T:1991:74, confirmed by case C-49/92 P *Commission v Anic Partecipazioni* [1999] ECLI:EU:C:1999:356. Most recently, see case C-74/14 *Eturas and Others,* note 26, para 28.

28 See, however, on the relevance of intent in hub-and-spoke collusion, note 39 and accompanying text.

the website of the trader which contractually allow the software to optimise prices of multiple traders can also be problematic.[29], [30]

A gap in enforcement may therefore only exist if a website is crawled without the consent of its owner and the owner has merely made the pricing information which is crawled public. However, antitrust enforcers around the world currently recognise that public exchanges of pricing information can sometimes also be problematic (although it is not always easy to draw a bright line between 'normal' public communications and invitations to collude).[31] The European Commission has also explicitly stated that it cannot be excluded that public communications could lead to a concerted practice[32] and even in those circumstances enforcement may therefore be possible. In any event, that the recipient of the information has given its consent to receiving the information is beyond doubt, since, by using price trackers, the recipient specifically requested it.

3.2. Collusion Can Be Found in the Absence of an Intention to Restrict Competition

Another element in antitrust law that is said to be an obstacle to enforcement in respect of AI is the widespread reliance on intentions to assess the object of collusion. It is indeed quite common for the Commission and the European courts to assess the conduct of undertakings in light of their intentions and the

29 See on this S. Schmidt, 'Web-Tracker und Kartellrecht', (2016) Wirtschaft und Wettbewerb, 572, 574-575.

30 Furthermore, if traders united by economic links together represent a significant part of the market, they can collectively hold a dominant position. See in particular Joined cases T-68/89, T-77/89 and T-78/89 *SIV and Others v Commission* [1992] ECLI:EU:T:1992:38, para 358. There is little enforcement practice in this field, but, according to some scholars, the use by multiple competing traders of devices strengthening their interdependence (e.g. by using the same pricing software) could be viewed as an abuse of such a collective dominant position. For a critical discussion of these views see N. Petit, note 11, 335-336.

31 The US Federal Trade Commission has, in 2006, already entered into a consent decree concerning an invitation to collude through public communication. See *In re Valassis Communications, Inc.*, F.T.C. No. C-4160, (April 19 2006), (consent order), available at: www.ftc.gov/os/caselist/0510008/051008c4160ValassisDecisionandOrder.pdf (last accessed: 4 October 2017). The Dutch Competition Authority entered into commitments with three telecom operators on this basis as well. See Decision of 7 January 2014 in case 13.0612.53 *T-Mobile, Vodafone, KPN*, available at: https://www.acm.nl/sites/default/files/old_publication/publicaties/14326_commitment-decision-regarding-mobile-operators.pdf (last accessed: 4 October 2017).

32 Commission, Guidelines on the Applicability of Article 101 of the Treaty on the Functioning of the European Union to Horizontal Co-operation Agreements, [2011] OJ C 11/1, paras 63 and 94. The Commission has raised concerns with public price announcements in case 39.850 *Container Shipping* which resulted in commitments by the undertakings concerned. See the Commission Decision of 7 July 2016 in case 39.850 *Container Shipping*, available at: http://ec.europa.eu/competition/antitrust/cases/dec_docs/39850/39850_3377_3.pdf (last accessed: 31 August 2017), in particular paras 45-47.

strategies they pursue, in particular if the conduct is ambiguous.[33] However, at least in the EU,[34] an anti-competitive intention is not necessary[35] (nor sufficient)[36] to establish a restriction to competition in the sense of Article 101 TFEU. There is no 'gap' in EU antitrust law when it comes to unintentional infringements.

As a consequence, the fact that pricing information would originally have been collected through crawlers in order to allow the recipient to be more competitive, does not exclude that that information is used in an unlawful way to increase prices or otherwise make the market less competitive. It is therefore not excluded that algorithms, self-learning or not, which are written with procompetitive intentions can still be found to be restrictive of competition.

Of course, as already indicated above, evidence of intentions can be useful to put conduct into context. If there is evidence that an algorithm has been programmed in a particular way in order to soften competition, this will clearly be useful in assessing whether it can and does restrict competition. Given the complexities of assessing the economic consequences of the conduct of undertakings, it is not surprising that the intentions and strategies of undertakings provide a good insight into the objectives pursued by their conduct.[37] In the absence of evidence on the objectives pursued by the algorithm (its intentions), a much more detailed effects analysis will often need to be conducted and it may therefore be more difficult to determine whether the conduct is illegal or not.

Evidence of intentions has been considered particularly important if there are suspicions of hub-and-spoke collusion – although this may be less about the

33 See, for example, the importance attached to the intentions of the parties in the patent settlement investigations of the Commission: Commission Decision of 19 June 2013 in case 39.226 *Lundbeck*, in particular paras 803-816, 858-866, 950-954, 1000-1005, 1075-1079 and 1161-1166, confirmed by the General Court in case T-472/13 *Lundbeck v Commission* [2016] ECLI:EU:T:2016:449, in particular paras 517-533; Commission Decision of 10 December 2013 in case 39.685 *Fentanyl*, in particular paras 334-359.

34 For the situation in the United States see M.E. Stucke, 'Is Intent Relevant?', (2012) 8 Journal of Law, Economics and Policy, 801.

35 Cases C-551/03 P *General Motors v Commission* [2006] ECLI:EU:C:2006:229, para 77; C-8/08 *T-Mobile Netherlands and Others* [2009] ECLI:EU:C:2009:343, para 27; C-501/06 P et al *GlaxoSmithKline Services Unlimited v Commission* [2009] ECLI:EU:C:2009:610, para 58; C-32/11 *Allianz Hungaria Biztosito* [2013] ECLI:EU:C:2013:160, para 37; C-67/13 P *Cartes Bancaires v Commission* [2014] ECLI:EU:C:2014:2204, para 54; C-286/13 P *Dole Food and Dole Fresh Fruit Europe v Commission* [2015] ECLI:EU:C:2015:184, para 118.

36 Case C-67/13 P *Cartes Bancaires v Commission*, note 35, para 88.

37 See note 35 to the Federal Trade Commission & US Department of Justice, 'Antitrust Guidelines for Collaborations Among Competitors', (2000), available at: www.ftc.gov/sites/default/files/documents/public_events/joint-venture-hearings-antitrust-guidelines-collaboration-among-competitors/ftcdojguidelines-2.pdf (last accessed: 31 August 2017): "[…] extrinsic evidence of intent may aid in evaluating market power, the likelihood of anticompetitive harm, and claimed procompetitive justifications where an agreement's effects are otherwise ambiguous."

intention to restrict competition than the intention as to whom commercially sensitive information should be shared with.[38] Although evidence of such intentions can be important to distinguish the (legitimate) direct exchange of information between distributor and supplier from the (illegitimate) indirect exchange of information between two distributors via the supplier, this is only important if there is ambiguity in this respect – and, even then, only as regards the liability of the distributors in question.[39]

4. Potential Liability

This brings me to the second obstacle which Ezrachi and Stucke identify: potential liability. Their question is: if pricing bots collude, who should be held responsible for this? Should it be the developers of the algorithm in question, or their users (and beneficiaries)? On what basis could either of them be held liable?

I do not think these questions can be answered in the abstract: it all depends. However, I do want to make two observations here in terms of the responsibilities of the undertakings involved and in terms of the tools available to European antitrust enforcers.

4.1. Undertakings Have an Obligation to Actively Ensure Compliance

First of all, I believe the case law of the CJEU is pretty clear that undertakings cannot take a passive attitude when it comes to antitrust infringements. We have already seen how an undertaking can be liable for participation in a concerted practice if it does not publicly distance itself from commercially sensitive information it receives. Liability for an antitrust infringement can arise not merely as a result of the actions of an undertaking but also from its inactions.

It is well known that the EU dominant undertakings have a 'special responsibility' to ensure that their conduct does not restrict competition.[40] But there is also a 'special responsibility' for undertakings to be circumspect in their dealings

38 See in particular the judgment of the Court of Appeal in England and Wales in case *Argos, Littlewoods and JJB v OFT* [2006] EWCA Civ 1318, paras 91 and 141.

39 The Court of Appeal in the case mentioned in the previous footnote, like the Competition Appeals Tribunal before it, seems to find evidence of intentions mainly relevant to determine who are the 'parties to a concerted practice'. Clearly, the exchange of pricing information between a supplier and distributor can also be used to enforce illegal resale price maintenance, even if there is no intention to share the information with other distributors.

40 First mentioned in case C-322/81 *Nederlandsche Banden Industrie Michelin v Commission* [1983] ECLI:EU:C:1983:313, para 57.

with competitors and with sensitive information they receive from their competitors. For example, when competitors engage in a lawful joint venture, they must ensure that their lawful cooperation does not have spill-over effects in other markets where their cooperation would not be lawful. To avoid this, undertakings may be under a positive obligation to put in place the necessary safeguards.[41] Similarly, while it is accepted that undertakings which envisage to merge need to exchange certain commercially sensitive information in order to assess whether the transaction is worth their while, they need to put in place safeguards to ensure that that exchange of information does not result in an infringement of Article 101 TFEU.[42] That undertakings should keep their business relations under constant review is also attested by the fact that they may infringe Article 101 TFEU by being party to a vertical agreement if similar vertical agreements are subsequently concluded by other undertakings: in those circumstances, an agreement may become illegal even though it was not illegal when it was originally concluded.[43]

Along the same lines, undertakings which collect commercially sensitive information from their competitors must take the necessary steps to ensure compliance with Article 101 TFEU. If they use pricing bots, they need to ensure that what these bots do is in compliance with the antitrust rules. If a designer or user of a pricing bot fails to take the necessary steps to stop those bots from engaging in collusion, the designer or user can be liable for that collusion,

41 See Commission Guidelines on the Applicability of Article 101 of the Treaty on the Functioning of the European Union to Horizontal Co-operation Agreements, note 32, para 215, which requires parties to a joint purchasing arrangement to ensure that sensitive data collected by the joint venture is not passed on to the parties.

42 There are no decisions of the European Commission on information exchanges prior to M&A transactions, but in the decision of the French Competition Authority of 8 November 2016 fining Altice for exercising influence over SFR prior to the clearance of its acquisition, the Authority stated that although "the preparation of a concentration usually gives rise to the exchange of a large amount of information between the acquirer and the seller or target", nevertheless "whatever the reasons for which the companies may need to exchange information, it is their duty to put in place measures that eliminate any communication of strategic information between independent undertakings." ("La préparation d'une opération de concentration donne habituellement lieu à l'échange de nombreuses informations entre l'acquéreur et le vendeur ou la cible." "Quels que soient les motifs pour lesquels les entreprises pourraient avoir besoin d'échanger des informations, il leur appartient de mettre en place un dispositif qui élimine toute communication entre entreprises indépendantes d'informations stratégiques"), paras 259-260.

43 On the cumulative effect of parallel networks of vertical agreements see cases C-23/67 *SA Brasserie de Haecht v Consorts Wilkin-Janssen* [1967] ECLI:EU:C:1967:54 and C-234/89 *Stergios Delimitis v Henninger Bräu AG* [1991] ECLI:EU:C:1991:91. The effect of this doctrine has been toned down by Commission Regulation 330/2010 of 20 April 2010 on the Application of Article 101(3) of the Treaty on the Functioning of the European Union to Categories of Vertical Agreements and Concerted Practices, [2010] OJ L 102/1 which block exempts vertical agreement if certain thresholds are met, also if parallel vertical agreements exist, although there is a possibility for the Commission to withdraw the benefit of the Regulation in that case (see Article 6).

regardless of whether the pricing bot is self-learning or not. Self-learning robots are not so different from sales people who, as non-artificial intelligence, also learn and adapt their commercial strategies. And, just like employers will be liable if their employees commit an antitrust infringement when authorized to act for their employer,[44] undertakings will be liable for the actions of their pricing bots if they use them.[45] [46]

Commissioner Vestager has also made this clear in a recent speech where she said that "businesses need to know that when they decide to use an automated system, they will be held responsible for what it does."[47] Director-General Laitenberger went even a step further in identifying the positive compliance obligations of companies: "[i]magine that a firm lets a piece of software monitor the prices of rivals and set its own. Let us also imagine that the software works all by itself, taking over the kind of coordination, bargaining and mutual commitment that are necessary to run a cartel. Well, even in this case the firm would still be liable for its actions. To stay on the safe side of the law, it should have programmed the software to prevent collusion in the first place."[48]

As regards the liability of the developer of the algorithm (if that is a different undertaking from the user), the case law that a middleman which facilitates collusion by competitors is itself party to that infringement and can be punished for it, is now fairly well established.[49] [50]

44 See Joined cases C-100-103/08 *Musique Diffusion française v Commission* [1983] ECLI:EU:C:1983:158, para 97, and, more recently, case T-588/08 *Dole Food and Dole Germany v Commission* [2013] ECLI:EU:T:2013:130, para 581.

45 As Acting Chairman of the US Federal Trade Commission Maureen K. Ohlhausen put it in a Speech on 23 May 2017: "[i]f it isn't ok for a guy named Bob to do it, then it probably isn't ok for an algorithm to do it either." See https://www.ftc.gov/public-statements/2017/05/should-we-fear-things-go-beep-night-some-initial-thoughts-intersection (last accessed: 31 August 2017).

46 At least if they have sufficient control over that pricing bot. If the pricing bot is effectively controlled by a third-party, the threshold for liability may be more akin to that described in case C-542/14 *VM Remonts* [2016] ECLI:EU:C:2016:578, paras 28-30.

47 Speech of Commissioner Vestager at the Bundeskartellamt 18th Conference on Competition, (Berlin, 16 March 2017), available at: https://ec.europa.eu/commission/commissioners/2014-2019/vestager/announcements/bundeskartellamt-18th-conference-competition-berlin-16-march-2017_en (last accessed: 31 August 2017).

48 Speech of Director-General Laitenberger at the Consumer and Competition Day, (Malta, 24 April 2017), available at: http://ec.europa.eu/competition/speeches/text/sp2017_06_en.pdf (last accessed: 31 August 2017).

49 Cases T-99/04 *AC-Treuhand v Commission* ECLI:ECLI:EU:T:2008:256; T-27/10 *AC-Treuhand v Commission* ECLI:ECLI:EU:T:2014:59; C-194/14 P *AC-Treuhand v Commission* ECLI:ECLI:EU:C:2015:717.

50 Furthermore, if the algorithm becomes a standard in the industry, one can wonder whether the use of that algorithm to facilitate price increases to the detriment of consumers could not be viewed as the abuse of a dominant position. Along the same lines see https://chillingcompetition.com/2016/01/22/ecjs-judgment-in-case-c-7414-eturas-on-the-scope-of-concerted-practices-and-on-technological-collusion/ (last accessed: 31 August 2017).

4.2 In Case of Doubt, the Commission Can 'Regulate' Without Fines

Obviously, the effectiveness of antitrust enforcement is linked to the severity of the sanctions that are imposed for infringements. It is a well-known fact that some cartels have covered the entire world with the exception of the United States because the risk of imprisonment there deterred the cartelists from extending it to American territory.[51] On the other hand, criminalisation of cartels also increases the evidentiary burden of the investigative authorities since the standard of proof in criminal law is generally higher than in civil law.[52] Even in the EU, the punishment of cartels through fines has been viewed as quasi-criminal, which implies that the evidentiary burden is relatively high.[53]

However, as a last resort, EU antitrust law allows for the regulation of practices which are considered to be harmful to competition even if it would not be appropriate to impose a fine. The Commission has in particular proceeded in this way when it found a practice to be anti-competitive which had not been qualified as such in the past.[54] Although the Commission is not prevented from imposing a fine in those circumstances,[55] it can exceptionally not impose a fine on an undertaking even though that undertaking has infringed the EU rules on competition, if there are objective reasons to do so.[56]

In particular, Article 23(2) of Regulation 1/2003[57] provides that fines may be imposed by the Commission on undertakings which 'either intentionally or negligently' infringe Article 101 TFEU. If, in exceptional circumstances, no intention or even negligence could be established with respect of an undertaking,

51 See G.J. Werden, S.D. Hammond and B.A. Barnett, 'Recidivism Eliminated: Cartel Enforcement in the United States since 1999', (2011), available at: https://www.justice.gov/atr/file/518331/download (last accessed: 31 August 2017), 8: "[0]n numerous occasions, the Antitrust Division has interviewed members of international cartels who provided first-hand accounts of their participation in cartels that spanned the globe but stopped at the US border because the participants feared going to jail. This eyewitness testimony is compelling evidence that enforcement in the Unites States is deterring cartel activity."

52 See the Opinion of AG Vesterdorf in case T-1/89 *Rhône-Poulenc v Commission* [1991] ECLI:EU:T:1991:38.

53 Although the CJEU has always avoided the qualification of EU antitrust law as criminal and Article 23(5) of Regulation 1/2003 even explicitly denies that characterisation to fining decisions adopted by the Commission, many have argued that fines in cartel cases should be viewed as quasi-criminal. See for example the Opinion of AG Kokott in case C-681/11 *Schenker & Co. and Others* [2013] ECLI:EU:C:2013:126, para 59.

54 See for example the Commission Decision of 29 April 2014 in case 39.985 *Motorola – Enforcement of GPRS standard essential patents*, available at: http://ec.europa.eu/competition/antitrust/cases/dec_docs/39985/39985_928_16.pdf (last accessed 31 August 2017), in particular paras 559-561.

55 Case C-457/10 P *AstraZeneca v Commission* [2012] ECLI:EU:C:2012:770, para 164.

56 Case C-499/11 P *Dow Chemical and Others v Commission* [2013] ECLI:EU:C:2013:482, para 47.

57 Regulation 1/2003 of 16 December 2002 on the Implementation of the Rules on Competition Laid Down in Articles 81 and 82 of the Treaty, [2003] OJ L 1/1.

the Commission is therefore estopped from imposing a fine on that undertaking. However, that does not mean that the Commission cannot prohibit the practice which it deems anti-competitive. Indeed, even in the absence of an intention or negligence, the Commission may, pursuant to Article 7 of Regulation 1/2003, order an undertaking to bring an infringement to an end and, if necessary, impose structural or behavioural remedies which are necessary to terminate the infringement. Article 24 of Regulation 1/2003 allows the Commission to make compliance with such a decision subject to periodic penalty payments.

So even if, as a theoretical hypothesis, a practice of a pricing bot would be considered to be so ambiguous that it may not have been possible for its designer or user to foresee its anti-competitive character, the Commission can prohibit the practice without a fine. Similarly, and again hypothetically, if an anti-competitive practice is identified which causes parallel behaviour between a number of undertakings but it would be impossible to identify the undertaking which is to blame for the collusion, the Commission can prohibit the practice and impose an obligation on one or more undertakings to ensure that the practice is stopped (possibly subject to the risk of a periodic penalty payment).

5. Conclusion

While the internet may bring us new products and services and markets which are competitive in ways which seemed unthinkable until very recently, it may also create market inefficiencies. It is therefore worthwhile to look out for any gaps in antitrust enforcement that may arise from the competitive process in virtual markets.

However, it is also important not to underestimate the flexibility allowed by the CJEU's case law in EU antitrust cases. The CJEU has identified unlawful collusion as a consequence of the disclosure of sensitive information from one undertaking to another and has also allowed for the establishment of infringements in the absence of anti-competitive intent. On this basis, even self-learning pricing algorithms could be caught by the prohibition of Article 101 TFEU.

Furthermore, undertakings can be liable for the actions of the (self-learning) algorithms they create or use. Undertakings have a positive obligation to ensure compliance with the EU antitrust rules and cannot plead ignorance of what their employees or price bots are doing. And even if there would be circumstances where undertakings could not be found to have been negligent in how they supervise their employees and price bots, the Commission could prohibit practices and ensure compliance through periodic penalty payments.

While there will continue to be gaps in enforcement, EU antitrust laws can stop many restrictions of virtual competition.[58]

58 After this Chapter was finalised for the 2nd RELC Conference on 'Digital Markets in the EU' on 9 June 2017, the European Commission published a note for the OECD Competition Committee's Round Table on 'Algorithms and Collusion' on 21-23 June 2017, available at: https://one.oecd.org/document/DAF/COMP/WD(2017)12/en/pdf (last accessed: 31 August 2017), which also concludes that "[t]o a large extent, pricing algorithms can be analysed by reference to the traditional reasoning and categories used in EU competition law."

Chapter 5:

Predatory Innovation: The Time Has Come Today!

*Thibault Schrepel**

1. Introduction

It is widely recognized that the process of competition generally encourages companies to lower their prices, which benefits consumers.[1] And yet, in certain specific cases, antitrust rules intend to sanction predatory prices because they eliminate the competitive process itself.[2] A similar situation applies to innovation. Innovation is one of the main bases for competition between companies and it is beneficial to consumers who may enjoy new products that are also better suited to their needs.[3] But certain 'innovative' behaviour is considered predatory and is punished accordingly,[4] despite the fact that no legal concept specifically addresses this issue.

This absence of a legal category specifically dedicated to anti-competitive practices disguised as 'innovation' leads judges to create numerous type I and II errors. As a matter of fact, the jurisprudence has not yet generalized the etiquette of 'predatory innovation' and the apparent lack of interest in that notion by courts has led legal doctrine to devote few studies to the subject, which has accentuated judges' reluctance to use it.[5]

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1 European Commission, 'Why Is Competition Policy Important for Consumers?', available at: http://ec.europa.eu/competition/consumers/why_en.html (last accessed: 30 November 2017).

2 P. Areeda and D. Turner, 'Predatory Pricing and Related Practices under Section 2 of the Sherman Act', (1975) 88 Harvard Law Review, 697.

3 J.G. Sidak and D.J. Teece, 'Dynamic Competition in Antitrust Law', in D.J. Teece, *Competing Through Innovation: Technology Strategy and Antitrust Policies*, (Edward Elgar, 2013).

4 J.G. Sidak, 'Debunking Predatory Innovation', (1983) 83 Columbia Law Review, 1121.

5 T. Schrepel, 'Predatory Innovation: Start Lawsuits!', (2017) Harvard Business Review.

Yet, predatory innovation, which we define as the alteration of one or more technical elements of a product to limit or eliminate competition,[6] is one of today's main issues. In fact, predatory innovation encompasses all practices that, under the guise of real innovation, are anti-competitive strategies aimed at eliminating competition without benefiting consumers. Identifying predatory innovation makes it possible to distinguish between real innovation and anti-competitive strategies which take on the appearance of innovation. In a world economy where innovation has become central, it is imperative to know how to distinguish it from practices hurting the consumer. But despite the importance of the subject, antitrust law provides no satisfactory answer to these strategies. Accordingly, this chapter seeks to substantiate the value of the notion of 'predatory innovation', which covers a wide range of practices, many of which are not reached by actual antitrust rules. It portrays the practices that may and should be condemned as predatory innovation, it exposes the multiplicity of these practices, and justifies the need to create a legal regime dedicated to them.

2. The Practices of Predatory Innovation

Different classifications have been conceived over the years in order to address predatory innovation. An appropriate categorisation makes it possible to define which practices must be condemned and thus can be used by judges and authorities to concentrate their efforts on practices that actually require sanctions.[7] We introduce here a new classification distinguishing the alteration of a product's platform from the modification of a product's technical design, whether it concerns software or hardware.[8] Separating the two helps to identify all practices of predatory innovation and the differences in how they should be assessed by the courts.

6 T. Schrepel, 'Predatory Innovation: The Definite Need for Legal Recognition', SMU Science and Technology Law Review (forthcoming 2018).

7 In 1982, -Hurwitz and -Kovacic stressed that the notion of innovation was ill-defined. For reasons that we ignore, this statement has lost none of its veracity, more than 30 years later. See J.D. Hurwitz and W.E. Kovacic, 'Judicial Analysis of Predation: The Emerging Trends', (1982) 35 Vanderbilt Law Review, 63, 66.

8 Software allows the execution of a specific task while platforms allow the management of a set of elements – in which software is included, each having a specific task. In some rare cases, these two products can be confused. See the description of D.S. Evans, A. Hagiu and R. Schmalensee, *Invisible Engines: How Software Platforms Drive Innovation and Transform Industries*, (MIT Press, 2006), 12. It is therefore necessary to consider which functions are the subject of predatory practices.

2.1. Proposal for a New Dichotomy

2.1.1. Modification of the Platform

The first type of predatory innovation concerns technological platforms[9] / interfaces[10]. We mean the term 'platform'[11] in the sense of a digital environment allowing the management and / or the use of application services.[12] Windows operating system, for instance, is a technological interface on which many developers create compatible software, such as those performing video or photographic processing.[13]

From a theoretical perspective, considering platform modifications implies taking into account the two-sided nature of high-tech markets, also referred to as dual markets,[14] which allow interconnecting of at least two distinct operators.[15] Google is a prime example. On the one hand, the company offers a 'free' service to its users, and on the other, it charges advertisers for better visibility.[16] The modification of a platform implies therefore considering the effects on both

9 We use platforms on a daily basis. See D.S. Evans, A. Hagiu and R Schmalensee, note 8, 223. Studies on the subject of the modification of platforms are very rare.

10 See OECD Policy Roundtables, Two-Sided Markets, (2009), DAF/COMP(2009)20, 27.

11 On the distinction between platform and application see B. Abramson, 'Promoting Innovation in The Software Industry: A First Principles Approach to Intellectual Property Reform', (2002) 8 Boston University Journal of Science and Technology Law, 75, 113. The distinction suffers from alleviations, especially when the applications serve as a 'quasi-platform'. And yet, it remains absolutely crucial for any market analysis related to high-tech. See on the subject B. Abramson, cited above.

12 This is also the meaning adopted by Judge Posner, stressing that platforms have no value in themselves. Compatible software and applications provide value, see R. Posner, 'Antitrust in the New Economy', (2001) 68 Antitrust Law Journal, 925, 928. It should be noted that a doctrinal debate exists on how to define this concept. See A. Lamadrid, 'Regulating Platforms? A Competition Law Perspective', Chillin' Competition, 24 November 2015, available at: www.project-disco.org/competition/112415-regulating-platforms-a-competition-law-perspective (last accessed: 30 November 2017).

13 For instance, CyberLink PowerDirector, Corel VideoStudio, Pinnacle Studio, Photoshop, Gimp & Lightroom.

14 OECD Policy Roundtables, note 10, 23. The OECD notes that this notion was first used by Professors Rochet and Tirole.

15 J-C. Rochet and J. Tirole, 'Two-Sided Markets: A Progress Report,' (2006) 37 Rand Journal of Economics, 645.

16 D. Auer and N. Petit, 'Two-Sided Markets and the Challenge of Turning Economic Theory into Antitrust Policy', (2015) 60 Antitrust Bull, 426.

markets,[17] which the doctrine rarely does adequately.[18] Such markets generally involve high fixed costs and relatively low variable costs.[19]

From a practical perspective, all strategies relating to the physical characteristics of a product are necessarily excluded from this category. Conversely, any changes made to operating systems, web or application servers, and finally web or software applications in the sense of multimedia libraries (e.g. online stores) and other digital workspaces are included.[20] One must also incorporate some changes made on internet browsers which, with the development of applications directly operable on them, can serve as a platform.[21]

In short, modifying a platform is straightforward. It aims not at altering a competitor's product directly, but rather at preventing access and / or reducing the overall compatibility of a product with the rest of a platform.[22] This strategy may have two purposes: (i) to prevent the product of a competing firm from being fully integrated within the dominant company's platform, or (ii) to prevent the competing platform from interacting efficiently with that of the dominant company. This strategy thus targets two types of competition, *between* platforms and *within* a platform.[23]

2.1.2. Modification of an Independent Product

From a theoretical perspective, the second type of predatory innovation takes place when a dominant company alters the functioning of a system software

17 Measuring these effects requires antitrust law to take into account the fact that goods or services are offered for free to users, see M.S. Gal and D.L. Rubinfeld, 'The Hidden Costs of Free Goods: Implications for Antitrust Enforcement', (2016) 80 Antitrust Law Journal, 521, 562.

18 F. Jenny, 'L'application du droit de la concurrence aux innovations de rupture aux États-Unis et dans l'Union européenne', in *Innovation de rupture, droit et concurrence*, (2016) Concurrences: Competition Law Journal.

19 J. Haucap and U. Heimeshoff, 'Google, Facebook, Amazon, eBay – Is the Internet Driving Competition or Market Monopolization?', (2014) 11 International Economics and Economic Policy, 49, 55.

20 H.F. Kaiser, 'Are "Closed Systems" an Antitrust Problem?', (2011) 7 Competition Policy International, 91, 96. For an up-to-date overview of all multimedia layers in 2006 see D.S. Evans, A. Hagiu and R Schmalensee, note 8.

21 See M.L. Katz and W.P. Rogerson, 'The Applications Barrier to Entry and Its Implications for the Microsoft Remedies: Comment on Lansiti and Richards', (2009) 75 Antitrust Law Journal, 723, 728. Also, see D. O'Connor, 'Understanding Online Platform Competition: Common Misunderstandings', in *Competition and Regulation of Online Platforms*, (CPI, 2016): "Netflix, for example, uses Amazon Web Services (AWS) as its cloud infrastructure". See also the Google Chrome Web Store.

22 One author notes that predatory innovation can, in fact, aim at creating a period during which no compatible product is available, see R.S. Markovits, 'An Ideal Antitrust Law Regime', (1985) 64 Texas Law Review, 251, 293. On the inexorable tension between platforms and applications see P.J. Weiser, 'Regulating Interoperability: Lessons from AT&T, Microsoft, and Beyond', (2009) 76 Antitrust Law Journal, 271, 287.

23 H.F. Kaiser, note 20, 96.

program, an application software program,[24] an application,[25] a driver,[26] or a physical product.[27] Such a strategy aims at eliminating the compatibility of a product, at changing the way it operates, or at adding a (perhaps frivolous) functionality to it so as to affect competition between 'contributors', which include software developers, content and service providers,[28] as well as companies producing compatible hardware.[29]

From a practical perspective, by employing the second type of predatory innovation, a dominant company seeks to directly affect the product of its competitors.[30] The goal can be achieved by (i) implementing modifications on the technical aspects of a product (e.g. by altering coding or programming) or (ii) by modifying the external characteristic of a product (e.g. by revising an external design or physical functionalities). A modification of the internal *and* external technical characteristics[31] may occur at the same time, for instance, when a company miniaturises its connectors.

2.2. Different Implementations of Predatory Innovation

2.2.1. Practices That Fall Outside the Scope of Predatory Innovation

Studying practices that fall within the scope of predatory innovation requires particular caution.[32] While many practices seem to fall within the scope of predatory innovation, several of them should be excluded from it. First, the design of digital platforms cannot, in itself, be considered an anti-competitive strategy. The same applies to the integration of content within platforms,[33]

24 Software is "that part of a computer system that consists of encoded information or computer instructions, in contrast to the physical hardware from which the system is built." See Software, Wikipedia, available at: https://en.wikipedia.org/wiki/Software (last accessed: 23 February 2017).

25 Applications are used to perform a specific task.

26 A driver is software that allows the use of computer hardware.

27 It may be hardware, phones, camera, or any technological object.

28 H.F. Kaiser, note 20, 96. See also R.E. Bartkus, 'Innovation Competition Beyond Telex v. IBM', (1976) 28 Stanford Law Review, 285, 296.

29 It can be a charger or a device that physically interacts with another.

30 The OECD notes that such strategies are intimately linked to network effects. See OECD Policy Roundtables, note 10, 34.

31 They are called *hardware*, which is "the collection of physical components that constitute a computer system." See Computer Hardware, Wikipedia, available at: https://en.wikipedia.org/wiki/Computer_hardware (last accessed: 23 February 2017).

32 OECD Policy Roundtables, note 10, 34: "Evaluating the impact on social welfare of policy measures in markets where two-sided platforms operate can be very challenging."

33 On the need not to presume the existence of an anti-competitive strategy when a dominant firm operate on a second market, see P. Rey, P. Seabright and J. Tirole, 'The Activities of a Monopoly Firm in Adjacent Competitive Markets: Economic Consequences and Implications for Competition Policy', (2001), unpublished manuscript, 45.

which, although stigmatised by some[34] as being anti-competitive, should not be sanctioned, at least not as predatory innovation.[35]

2.2.1.1. The Design of Digital Platforms

The European Commission defines platforms as products using "the internet to allow interactions between at least two distinct but interdependent groups of users so as to create value for at least one of the groups; certain platforms [being] considered to be intermediary service providers."[36] A company may decide to design an open, a free, or a proprietary platform. And most of the doctrine advocates the pro-competitive aspect of open platforms,[37] underlining that they allow a greater diversity of products.[38] This point of view would be hard to challenge, although different anti-competitive strategies may emerge, including fragmentation,[39] that can be used for anti-competitive purposes.[40]

34 J. Zittrain, *The Future of the Internet and How to Stop It*, (Yale University Press, 2009).

35 We set aside the issues related to exclusivity agreements, for instance.

36 Definition from the questionnaire on platforms launched by the European Commission, see European Commission Press Release IP/15/5704, 'Have Your Say on Geo-Blocking and the Role of Platforms in the Online Economy', (24 September 2015), available at: http://europa.eu/rapid/press-release_IP-15-5704_en.htm (last accessed: 23 February 2017).

37 See M.A. Lemley and D. McGowan, 'Could Java Change Everything? The Competitive Propriety of a Proprietary Standard,' (1998) 43 Antitrust, 715. Nevertheless, open platforms seem less likely to be the subject of anti-competitive strategies, see J. Baskin, 'Competitive Regulation of Mobile Software Systems: Promoting Innovation Through Reform of Antitrust and Patent Laws', (2013) 64 Hastings Law Journal, 1727, 1738. See also W. Seltzer, 'The Imperfect Is the Enemy of the Good: Anticircumvention Versus Open User Innovation,' (2010) 25 Berkeley Technology Law Journal, 909, 932. One writer notes the two advantages of open source: social and utilitarian, see M.J. Schallop, 'The IPR Paradox: Leveraging Intellectual Property Rights to Encourage Interoperability in the Network Computing Age,' (2000) 28 Aipla Quarterly Journal, 195, 241.

38 Jonathan Rosenberg, one of Google's executives, also said: "At Google we believe that open systems win. They lead to more innovation, value, freedom of choice for consumers, and a vibrant, profitable, and competitive ecosystem for business." See J. Rosenberg, 'The Meaning of Open', Official Google Blog, (21 December 2009), available at: http://googleblog.blogspot.com/2009/12/meaning-of-open.html (last accessed: 23 February 2017).

39 The term 'fragmentation' refers to the fact that open source software is modified by an operator so that several versions of the software, potentially incompatible with each other, are in circulation. On the existence of anti-competitive strategies on open source systems see M.S. Gal, 'Viral Open Source: Competition vs. Synergy', (2012) 8 Journal of Competition Law and Economics, 469, 485. More generally, a company may want to help develop an open source system on a market A in order to deprive its competitors of monopoly profits so as to better compete with them in a market B.

40 Predatory innovation strategies may take place on open platform, see Mark A. Lemley, 'Intellectual Property Rights and Standard-Setting Organizations', (2002) 90 California Law Review, 1889, 1963. A dominant company may fragment a competing open source software in order to make it less efficient, for the benefit of its proprietary software.

The doctrine is more divided on evaluating whether closed systems are pro- or anti-competitive by nature.[41] In a distinguished article, Hanno F. Kaiser discussed many competitive advantages created by closed platforms.[42] This article, which goes against part of the doctrine, features arguments which deserve to be considered.

First, a closed platform may allow the *pro-competitive limitation of the number of users*.[43] A company may indeed have an interest in limiting the presence of users on its platform.[44] For instance, social networks may want to limit the number of enrolees based on the population targeted, as a restaurant may want to control the number of its customers. The same logic applies to platforms which may want to limit the number of applications and software programs to reduce search costs associated with identifying the best ones.[45] In addition, paying for a poor-quality software program may discourage the purchase of another software program on the same platform.[46]

Second, closed platforms may allow *ensuring their safety*.[47] Limiting competition within a platform – so-called 'intra-platform' competition – may indeed be justified for security reasons.[48] Lastly, limiting cross-platform competition can be justified by the need to create software programs, or applications, specifically designed to *ensure their efficiency* within a platform. The simultaneous development of applications for several platforms,[49] facilitated by the existence

41 H.F. Kaiser, note 20, 96. See also J. Zittrain, note 34. For more see T. Wu, 'How Apple's Closed Ways Could Land It into Antitrust Trouble', Techcrunch, 20 November 2010, available at: http://techcrunch.com/2010/11/20/apple-antitrust/ (last accessed: 30 November 2017).

42 H.F. Kaiser, note 20, 96.

43 F. Thépot, 'Market Power in Online Search and Social Networking: A Matter of Two-Sided Markets', (2013) 36 World Competition, 195, 200.

44 Ibid.

45 This is what two authors point out, see N. Smyrnaios and F. Rebillard, 'Entre coopération et concurrence: Les relations entre infomédiaires et éditeurs de contenus d'actualité', (2011) 3 Concurrences: Competition Law Journal, 14.

46 One author is also evoking the 'lemon problem'. See D.S. Evans, 'The Antitrust Analysis of Rules and Standards for Software Platforms', (2014) Coase-Sandor Working Paper Series in Law and Economics 14.

47 H.F. Kaiser, note 20, 96.

48 The safety objective in itself does not appear to be part of antitrust law objectives. This is, however, a matter for day-to-day management.

49 French Competition Authority and Competition and Markets Authority, The Economics of Open and Closed Systems, (16 December 2014), available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/387718/The_economics_of_open_and_closed_systems.pdf (last accessed: 30 November 2017).

of technical intermediaries,[50] is not necessarily beneficial to consumers in terms of how the final product will be designed.[51]

In short, closed platforms should not be condemned *per se*,[52] nor can it be assumed that open platforms only produce pro-competitive effects. It is necessary to study all practices taking place on these platforms and not to condemn them wholesale – or even to postulate their anti-competitive effect. An in-depth market analysis is in fact needed in this respect.

2.2.1.2. Content Integration within Platforms

The integration of content – being understood as any information or software – is sometimes described as being predatory.[53] This type of practice, illustrated by the European Microsoft case,[54] is said to have the effect of *foreclosing* competitors because the dominant company enjoys an essential facility with its platform.[55]

Several authors[56] have stressed, however, that it may be in a company's and consumers' best interest to integrate a product into another because it allows (i) saving labour for the user, (ii) generating economies of scale, and (iii) anticipating the occurrence of technical problems.[57] Moreover, unlike the traditional foreclosure effect, the integration of one software program within a platform does not have the systemic effect of eliminating competitors.[58] And

50 Technical intermediation is provided by middleware, which serves as a communication intermediary between several applications.

51 M.L. Katz and C. Shapiro, 'Systems Competition and Network Effects', (1994) 8 Journal of Economic Papers, 93, 95; see also J. Farrell and P.J. Weiser, 'Modularity, Vertical Integration, and Open Access Policies: Towards a Convergence of Antitrust and Regulation in the Internet Age', (2013) 17 Harvard Journal of Law and Technology, 85, 99.

52 Several authors underline that the closed nature of a network *cannot* be challenged, in particular, because of the presence of intellectual property rights which confer the right to maintain it. See H. Hovenkamp, M.D. Janis, M.A. Lemley, C.R. Leslie and M.A. Carrier, *IP and Antitrust: An Analysis of Antitrust Principles Applied to Intellectual Property Law,* (3rd ed., Wolters Kluwer Law & Business, 2016).

53 H.F. Kaiser, note 20, 96.

54 *Microsoft* Decision, Case COMP/C-3/37.792, (2004), available at: http://ec.europa.eu/competition/antitrust/cases/dec_docs/37792/37792_4178_1.pdf (last accessed: 30 November 2017).

55 R. Pardolesi and A. Renda, 'The European Commission's Case Against Microsoft: Kill Bill?', (2004) 27 World Competition, 513.

56 K.M. Murphy, 'Economic Perspectives on Software Design: PC Operating Systems and Platforms', in D.S. Evans (ed), *Microsoft, Antitrust and the New Economy: Selected Essays*, (Kluwer, 2002).

57 See P. Rey, P. Seabright and J. Tirole, note 33.

58 It can be used for a subsequent increase in prices, as Jean Tirole stressed in one of his contributions to economic literature. Such an increase cannot, however, be sanctioned under predatory innovation as it intervenes in a second phase and on issues that are outside the definition of predatory innovation.

even if foreclosure does arise, it results ineluctably from a natural competition process by which the company holding the platform has won the approval of its users. In fact, if an embedded software program has a poorer performance than a competing product, it is not established that consumers would keep the first software program available to them – just look at how many users actually use QuickTime on their Mac computers.[59] Transfer costs almost never prove to be strong enough to lock a user into an inferior technology.[60] Platform owners must then be free to alter their platform, according to ownership principles. In short, software integration within a platform is not, and should not be recognized as, anti-competitive *per se*.[61]

2.2.2. Practices Falling within the Scope of Predatory Innovation

2.2.2.1. Changing Platform Type

Changing the type of platforms[62] may create a window for implementing an anti-competitive strategy.[63] Accordingly, studying the strategies of platforms alteration – which effects can be pro- and / or anti-competitive – is necessary. In more detail, the alteration of a closed platform into an open platform seems *a priori* pro-competitive,[64] but the transformation of an open platform into a closed one is more contentious, the effects of such strategies being composite.[65]

From a Closed Platform to an Open Platform. While the European and North American doctrines seem, at the moment, to attach little significance to the anti-competitive strategies which may be nested[66] in such transformation of the platform type, real problems may arise in terms of antitrust law.[67] Professors

59 One May Wonder, After 20 Years, Is QuickTime Still Relevant for the Web?, http://royal.pingdom.com/2012/01/03/after-20-years-is-quicktime-still-relevant-for-the-web/, (3 January 2012) (last accessed: 30 November 2017).

60 See, in general, W.H. Page and J.E. Lopatka, *The Microsoft Case: Antitrust, High Technology, And Consumer Welfare*, (The University of Chicago Press, 2007).

61 This also implies that any sanctioning *by object* should be rejected.

62 For an examination of all possible way to open or close a platform see T.R. Eisenmann, G. Parker and M. Van Alstyne, 'Opening Platforms: How, When and Why?', in A. Gawer (ed), *Platforms, Markets and Innovation,* (Edward Elgar, 2009).

63 H. Hovenkamp, M.D. Janis, M.A. Lemley, C.R. Leslie and M.A. Carrier, note 52, at 'Altering Existing Interfaces'.

64 J. Baskin, note 37, 1738. See also M.S. Gal, note 39, 478.

65 Ibid.

66 Some authors even argue that an open platform cannot feature *any* competitive risk, see G. Massarotto, 'Open Source Paradigm: Beyond the Solution to the Software Patentability Debate,' (2016) 15 John Marshall Review of Intellectual Property Law, 647, 675.

67 M. Asay, 'Open Source as An Antitrust Strategy', CNet.com, (2 November 2009), available at: www.cnet.com/news/open-source-as-an-antitrust-strategy (last accessed: 30 November 2017).

Katz and Shapiro have stressed that opening a platform could have the effect of harming competing platforms.[68] The existence of network effects may imply a strong competition between closed systems.[69] Opening a platform may then reduce the incentive to innovate, precisely because creating network effects will be harder. Moving a closed to an open platform seems, as a result, to lessen consumers' welfare in certain cases, but it is necessary to have a closer look.

In fact, the opening of a platform may be total or partial.[70] When it is *total*, a company may want to set off competitive damage at several levels.[71] Suppose that a dominant company, named A, decides to entirely open its platform. Also assume that this platform was partially closed until then, meaning that company A controlled what software was available on it. Suppose further that the platform is popular and that one of the direct effects of opening is a drastic increase in the number of applications and software programs available on the platform.

Several consequences should be discerned. First, network effects will be ineluctably increased, to the detriment of competing platforms.[72] Second, the opening of the platform may have the effect of reducing the market shares of a competing company, called B, which is selling compatible software. Company B may suddenly face increased competition on its core market, forcing it to reduce its selling price. If B is also selling a competing operating system, the opening of the platform may then create a foreclosure effect[73] beneficial to A on its core market. Meanwhile, in such a situation, consumer welfare will nevertheless be increased. The programming of more software, to the detriment of B, is a salutary competitive process that should not be condemned. Some of the effects created by this practice are thus pro-competitive, which is typically true when a company entirely opens its platforms because the company is changing its business model for the benefit of certain consumers. As a result, the total opening of a platform should not be considered as a violation of antitrust law.

The case of a platform's *partial* opening may be more problematic. Imagine that a dominant company chooses to move from a closed platform, in which it controls the content, to a semi-open platform, in which it reserves the right to accept third-party content, or to reject it. One understands here that the

68 See M.L. Katz and C. Shapiro, 'Technology Adoption in the Presence of Network Externalities', (1986) 94 Journal of Political Economy, 822. They note that the choice to create a closed platform is the fruit of hard thinking.

69 Ibid.

70 T.R. Eisenmann, G. Parker and M. Van Alstyne, note 62.

71 See M.S. Gal, note 39, 485.

72 M. Czajkowski and M. Sobolewski, 'Switching Costs and Network Effects – How Much Do They Really Matter in Mobile Telecommunications?', (2013) WNE Working Papers No. 29, 114.

73 A variant of this strategy has been described by M.S. Gal, note 39, 485.

dominant company may want to accept the software / applications of small companies, in order to increase the overall utility of its platform, and to refuse the software / applications of bigger companies that may compete with it in other markets. Consequently, if the dominant company designs its platform to create technical incompatibility with the products of strong competitors for unjustified reasons, the partial opening of the platform *may* have an anti-competitive effect which should be condemned under the label of predatory innovation.

From an Open Platform to a Closed Platform. A company owning an open platform may decide to shift it into a closed system, whether it is for pro-competitive reasons, to raise the security of the platform, for instance, or simply to lock the market.[74] The probability that anti-competitive effects will be created is, in fact, more serious than when the opposite change is made. Judges must then assess whether such a change is justified by an economic reason,[75] other than the anti-competitive effects to eliminate competition.

The recent joint Report of the French Competition Authority and the Competition and Markets Authority, sets out six reasons why a company might want to close its platform.[76] But in fact, the transition from an open platform to a closed platform may also cause heavy losses to the company implementing it, for instance, if third-parties' content becomes available, which reduces the platform value and causes a decrease in market shares. Accordingly, if a company is taking the risk of closing its platform, knowing the anti-competitive effects may not compensate for the losses incurred, it is then essential for judges to analyse if a valid economic reason justifies it as well, which is likely to explain the choice made by the company. And such reasons are in fact numerous. They can be found, for instance, in the need to increase security, or to allow a more fluid use of the platform, or even to control the content in order to avoid negative externalities.

Moving from an open to a closed platform can affect all software and applications operable on it, but it can also affect other platforms. There are, in fact, different ways for a company to close its platform, which create different effects. In the first hypothesis, a dominant firm may affect compatible software

74 French Competition Authority and Competition and Markets Authority, note 49. See also J. Baskin, note 37, 1738.

75 T. Schrepel, 'The "Enhanced No Economic Sense Test": Experimenting with Predatory Innovation', NYU Journal of Intellectual Property and Entertainment Law (forthcoming 2018).

76 French Competition Authority and Competition and Markets Authority, note 49. The six anti-competitive reasons are the following: to protect its core business, to lock one face of the market, to reduce competition on the market of compatible products, to make additional profits, to avoid monopoly profits loss and to price discriminate.

and applications by intentionally seeking, by technical means, to forbid its competitors from accessing it. But, the platform closure may also result from the regular introduction of a product's new versions creating indirect incompatibility with competing products. In the second hypothesis, closing the platform may affect other platforms whenever users of the third-party's platform can no longer interact with those of the dominant company. The removal of a competing platform's portability may also cause anti-competitive damage. The closing of the platform can finally result from incompatibility with other platform components.

Several examples corroborate how numerous the ways to close a platform are. Among the major cases dealing with predatory innovation is the *IBM* case, in which a company had decided to change the type of interface between its computers and hard disks.[77] *Berkey Photo v Eastman Kodak* and *C.R. Bard v M3 Systems* also exposes a similar strategy.[78] It should be noted, however, to the best of my knowledge, that no European case falls under this type of predatory innovation. And yet, some recent examples illustrate that such strategies are increasingly common, which proves that antitrust law suffers from not having the necessary tools.

For instance, in 2016, Instagram blocked an application called Being which allowed its content to be read without having to use Instagram.[79] Instagram intended to prevent its users from accessing its service through a third-party application that would allow accessing its content for obvious reasons linked to advertising revenues.[80] A case-by-case analysis would have been necessary in order to assess whether or not a technical justification was provided, and thus, whether the company should have been sanctioned or not. Irrespective of whether that practice is anti-competitive or not, it shows that many practices meet the criteria for predatory innovation.

2.2.2.2. Product Modification to (Partially) Remove Compatibilities

Product interoperability is often described as the ability to (i) exchange information and (ii) to use this information.[81] The modification of software

77 *Computer Prods. v IBM Corp.*, 613 F.2d 727 (9th Cir. 1979).
78 These judgments did not directly concern high-tech markets.
79 S. Perez, 'Instagram Kills Newly Launched 'Being' App, Which Saw 50K Downloads Its First Week', Techcrunch, 9 March 2016, available at: https://techcrunch.com/2016/03/09/instagram-kills-newly-launched-being-app-which-saw-50k-downloads-its-first-week (last accessed: 30 November 2017).
80 Ibid.
81 See Interoperability, Wikipedia, available at: https://en.wikipedia.org/wiki/Interoperability (last accessed: 23 September 2017).

or application can fulfil similar objectives to those exposed to the change of platform type. Amending product interoperability may affect a competitor in the same market – this would be the case if PCs were suddenly incompatible with Macs – or a competitor in a downstream market – for instance when Macs are suddenly incompatible with some audio speakers.

There is, however, a specific characteristic of this type of predatory innovation: the potential changes to the product are less a matter of an overall philosophy than it is the case for the choice of an open or proprietary platform. Many companies justify their choice to offer an open platform because this encourages sharing and a 'free' world in which the concept of computer ownership is forsaken for the benefit of the community, which is free to develop various software programs or applications. Such motivation is much less common regarding software development insofar as software is not intended to allow other applications to operate on it.

On the contrary, such a modification aims at changing a product's functioning so that its interaction with other products is improved, or deteriorated in the case of a strictly anti-competitive practice. The possible economic justification for this type of predatory innovation is related to short-term efficiency.

This type of predatory innovation also involves cheaper and faster changes than for mutations in the platform type. Removing wireless technology from an electronic device may result, for instance, from the elimination of a single line of computer code, unlike the change of platform type that requires entirely new global settings. In other words, this type of practice implies a lower cost than altering a platform, which tends to escalate its implementations.

The Various Implementations of Such Strategy. Such a predatory innovation may aim at removing a product function. It could be, for instance, when files generated by one product cannot be opened on another product. Predatory innovation can also result from changing the functionality of a product. For instance, a phone manufacturer may decide to change the wireless communication mode of its devices, from Bluetooth to Wi-Fi. The wireless communication functionality is maintained, but the latter is modified so that the compatibility with a competitor product is eliminated. As a result, wireless speakers using Bluetooth technology will be incompatible for the benefit of a dominant company, which will be able to increase the sales of its own Wi-Fi speakers. Such a strategy of predatory innovation can finally result from adding a frivolous function to a product. A company may decide to allow its users to execute an abandoned programming language. It can, as a result, require all compatible products to

allow the execution of that language, because some compatible software may then require its use. In such a situation, compatibility with competing products could be eliminated on the grounds that they do not allow the execution of an additional programming language which is obsolete.

These different strategies of removing, changing or adding functionalities have recent manifestations. The *Intel*[82] and *iPod iTunes Litigation*[83] cases are two examples illustrating the antitrust issue of removing direct interoperability with competitors' products.[84] And many other examples also testify to the regular occurrence of such practices. For instance, Apple has recently limited tracking in its Safari browser, making it harder for ad buyers to target niche audiences.[85] To assess whether these changes are anti-competitive or not, it should be examined whether Apple can demonstrate an actual economic justification.

3. An Autonomous Legal Regime

Now that we have shown the diversity of practices related to predatory innovation, the question of which rules are applied necessarily emerges and we argue that assessing predatory innovation requires a dedicated legal regime. This stems, in particular, from the inappropriateness of the rules of tying, as well as the traditional mechanisms in terms of predation.

3.1. Predatory Innovation Is Not (Technological) Tying

Legal categories are tools that reflect the objectives assigned to antitrust law.[86] This is the reason why the legal qualification given to predatory innovation is essential. In numerous legal decisions, from the United States and Europe, predatory innovation practices are addressed by using the legal rules of

82 Federal Trade Commission, Statement in the Matter of Intel Corporation, FTC Docket No. 9341, (16 December 2009).

83 *The Apple iPod iTunes Antitrust Litigation*, case number 5:2005cv00037.

84 Some less well-known cases concern the same issues. See *In re Keurig Green Mountain Single-Serve Coffee Antitrust Litigation*, 24 F.Supp.3d 1361 (J.P.M.L. 2014), in which the dispute was defined as such. See also *Arminak & Associates, Inc. v Saint-Gobain Calmar, Inc.*, 789 F.Supp.2d 1201 (C.D. Cal. 2011).

85 A. Hern, 'Apple Blocking Ads That Follow Users Around the Web Is 'Sabotage', Says Industry', The Guardian, (18 September 2017), available at: https://www.theguardian.com/technology/2017/sep/18/apple-stopping-ads-follow-you-around-internet-sabotage-advertising-industry-ios-11-and-macos-high-sierra-safari-internet (last accessed: 30 November 2017).

86 N. Economides and I. Lianos, 'The Elusive Antitrust Standard on Bundling in Europe and in the United States in the Aftermath of the Microsoft Cases', (2009) 76 Antitrust Law Journal, 483, 486. D.A. Crane, in his article titled 'Antitrust and Wealth Inequality', (2016) 101 Cornell Law Review, 1171, 1228, underlines that "antitrust law is generally ill positioned to describe how the pie is allocated or to prescribe how it should be allocated", to which I subscribe.

tying.[87] More precisely, the concept of 'technological tying', which involves the simultaneous purchase of two products[88] forced by technical design, or, in other words, the modification of a product so that another one will be tied to it, is often used to analyse predatory innovation. And yet, the legal regime surrounding it remains very unclear.[89] The concept of general tying has been the subject of extensive case law,[90] but the same cannot be said regarding the concept of 'technological tying'.

In any case, the fact of the matter is that (technological) tying and predatory innovation must be separated from one another. Unlike tying, predatory innovation practices do not require the existence of two distinct products. In fact, the necessity to prove the existence of two distinct products may lead judges not to condemn some predatory innovation practices that should be condemned.[91] Some anti-competitive practices may indeed be subject to antitrust law under predatory innovation while they are not under tying: these are all strategies in which a dominant firm modifies an existing product without imposing (directly) the purchase of a separate product. For instance, moving from an open platform into a closed platform,[92] or removing functionality from a product, raises issues that tying actually ignores. The dominant firm's goal may be to eliminate a competitor on market B, for compatible products, without offering any alternative, so as to reduce the competitor's profits and thus the competitive pressure it may exercise on market A. Moreover, the concept of technological tying is unfit to cover all of the predatory innovation practices in which, for technical reasons, two distinct products have become one. This is a *de facto* incoherence of the legal regime for technological ties.

Moreover, a practice can be condemned under the legal regime of technological tying *only if* it creates an anti-competitive effect on the tying product market (market A), or the market of the tied product (market B). Yet, deleting the compatibility between two products may have no meaningful anti-competitive

87 J. Tirole, 'The Analysis of Tying Cases: A Primer', (2005) 1 Competition Policy International, 1.

88 This may be the case, for instance, when a company decides to change the connections of its devices in order to force the consumer to buy its product, such as the charger, the video cable. See Y. Bakos and E. Brynjolfsson, 'Bundling Information Goods: Pricing, Profits, and Efficiency', (1999) 45 Management Science, 1613, 1638.

89 T. Schrepel, 'Antitrust Conversations with Some of the World's Most Distinguished Experts', (2017) Revue Concurrentialiste.

90 Tying is the trendiest of Article 102 TFEU / Section 2 Sherman Act anti-competitive categories. See our study realized on Google Books Ngram, available at: https://perma.cc/WV7V-6YBU (last accessed: 30 November 2017).

91 S. Frattaroli, 'Dodging the Bullet Again: Microsoft III's Reformulation of the Foremost Technological Tying Doctrine', (2010) 90 Boston University Law Review, 1909, 1920.

92 A closed platform implies that its creator maintains a more or less absolute control over the content which is available. He can control which software is distributed and compatible with its platform.

effect in these two markets. This is the case when, despite the compatibility removal, some other competing products are available to the consumer whose welfare is maintained at the same level. The anti-competitive effect may then occur in another market – market C, an issue which tying cannot address. Only the creation of a legal regime for predatory innovation will allow grasping this strategy.

And it is not clear, based on case law, if a tie implemented with the aim of obtaining a competitive advantage, and not monopoly power, on the tied market can be sanctioned under Article 102 TFEU or Section 2 of the Sherman Act.[93] In general, obtaining dominance is not problematic. But some practices are condemned by the courts if they constitute an abuse of a dominant position, and this, even though they do not lead to a monopoly power.[94] In a similar fashion, practices of predatory innovation may aim at eliminating only one competitor, without eliminating all of them. For instance, the interoperability of a product can be removed with one competing product only, a practice which would be covered by predatory innovation, unlike tying. But in order to be sanctioned, it is generally required that the company which engages in tying on a second market must threaten to monopolise it.[95] But what if that company threatens the survival of one competitor only?

Also, it should be noted that the North American concept of tying simply covers the practices which create a leverage effect,[96] and the concept of ties then only authorises to deal with the strategies implying two distinct markets. Predatory innovation practices *may* create such a leverage effect[97], but it is not typically the case.[98] The mechanism of tying is thus too limited by nature, which is why judges have had to contort it to be able to apply it to practices falling under another mechanism.

93 Getting the Deal Through, *Abuse of Dominance*, United States, 2016, available at: https://gettingthedealthrough.com/area/10/jurisdiction/23/dominance-united-states/ (last accessed 30 November 2017.) We can assume that this legal regime follows from the influence of the Chicago school which advocated the impossibility of using monopoly power in a market in order to obtain another monopoly on a second market without sacrificing its profits, see on the subject R.H. Bork and J.G. Sidak, 'What Does the Chicago School Teach About Internet Search and the Antitrust Treatment of Google?', (2012) 8 Journal of Competition Law and Economics, 663.

94 The only fact of 'strengthening (a) dominant position' is to be sanctioned if it is not made on the merits. Reaffirming this principle, see case C-413/14 P *Intel v Commission* [2017] ECLI:EU:C:2017:632, para 136.

95 Getting the Deal Through, note 93.

96 The term 'leverage' is used to describe the strategy by which a firm uses its dominant position on a market with the goal to extend it in on other markets. See J.M. Newman, 'Anticompetitive Product Design in the New Economy', (2012) 39 Florida State University Law Review, 681, 683.

97 Ibid.

98 A strategy of predatory innovation may aim at eliminating competitors in one market by removing compatibility between software.

The same goes for all of the existing concepts of antitrust law. For instance, the jurisprudence on refusal to supply, which could possibly seem adaptable, makes it clear that "the refusal by an undertaking occupying a dominant position on the market of a given product to meet the orders of an existing customer constitutes abuse of that dominant position."[99] But predatory innovation is not about orders or contractual agreements, it is about technical issues, and the way technologies interfere with each other. As for the Microsoft case, it concerned a "refusal to supply and authorise the use of interoperability information."[100] Once again, technical issues are not at the very centre of the case, the reason being that the court missed on the opportunity to identify the proper legal regime to address the case.

3.2. Predatory Innovation Is a Very Singular Kind of Predation

Predatory innovation could lead to three different foreclosure effects: (i) foreclosure on the main market, (ii) foreclosure on related markets, and (iii) vertical exclusion. Only the first two are generally analysed, but vertical exclusion is a real issue regarding predatory innovation. Integrating software programs within a platform, for instance, is perceived by some authors as a predatory strategy that must be condemned.[101] The analysis of predatory innovation is also complex as it relies only in part on traditional patterns of predation practices.[102] The latter traditionally implies that a dominant firm incurs initial losses in the hope of recovering them subsequently. While predatory practices may imply a similar strategy, these losses are far from being systematic. In fact, a dominant firm may reduce the quality of its products without having to bear short-term losses. This happens, for instance, when a company creates incompatibility between its product and a new technology that is yet little used, although very promising.[103] The traditional mechanism of predation is reversed as short-term

99 Joined cases C 468/06 to C-478/06 *Sot. Lelos kai Sia EE v GlaxoSmithKline AEVE Farmakeftikon Proionton*, [2008] ECLI:EU:C:2008:504, para 34.

100 Case T-201/04 *Microsoft Corp v Commission* [2007] ECLI:EU:T:2007:289.

101 Ibid.

102 Predatory innovation is therefore more difficult to detect than predation based on pricing, see T. Calvani and N.W. Averitt, 'Non-Price Predation: An Introduction', (1986) 16 Journal for Antitrust Law and Economics (2), 683.

103 In this example, the consumer may not suffer from a direct harm if a product becomes incompatible with a new technology that is not very popular yet. Nevertheless, the utility of the product is not increased. It may be necessary to wait until the new technology allowing data transfer is popularized so that sales of the incompatible product may actually start to decline.

losses will rarely occur,[104] contrary to long-term ones which could appear if there is a decrease in sales.[105]

Predatory innovation also has patterns different from most predatory practices. Several authors have stressed that all predatory strategies aim at increasing rivals' costs, or, in other words, allow the dominant firm to sell its goods at a lower price than one of its competitors.[106] This is not necessarily the case for predatory innovation that can aim at purely and simply foreclose competitors. Predatory innovation thus deserves a legal regime tailored to these different specificities.

4. Conclusion

As I have illustrated in this Chapter, predatory innovation practices are numerous,[107] protean, and ever-changing. One of high-tech markets' specificities is the ability for companies to continually improve their products that already are on the market, creating, in fact, a multitude of opportunities to reduce competition.[108] The system of digital updates (sometimes automatic), for instance, allows dominant firms to impose a predatory strategy on their users, depriving them of any possibility of rejecting the product's new version in the short term.[109] A company can thus create as many predatory strategies as it updates one of its products.

The damage caused by predatory innovation on the economy must lead antitrust law specialists to develop a legal regime that addresses predatory innovation. The need to recognize a specific regime for these practices seems to be indisputable in so far as current antitrust rules do not make it possible to analyse these practices without creating judicial errors. The implementation of a specific regime will thus increase firms' legal certainty while giving judges the ability to impose clear-cut decisions. As a consequence, such a regime will not

104 On the challenge imposed by predatory strategies that incur low costs in the short term. See J. Tirole, note 87, 21.

105 Ibid.

106 T. Calvani and N.W. Averitt, note 102, 683. Another author also makes the mistake of assimilating non-tariff predatory practices with those aimed at increasing its competitor costs. See P.F. de Ravel d'Esclapon, 'Non-Price Predation and the Improper Use of US Unfair Trade Laws', (1987) 56 Antitrust Law Journal, 543.

107 S. Van Arsdale and C. Venzk, 'Predatory Innovation in Software Markets', (2015) 29 Harvard Journal of Law and Technology, 243, 247. For a reaction to this article see T. Schrepel, 'Predatory Innovation: A Response to Suzanne Van Arsdale & Cody Venzke', (2017) Harvard Journal of Law and Technology, Digest Note.

108 R.C. Picker, 'Rewinding Sony: The Evolving Product, Phoning Home and the Duty of Ongoing Design', (2005) 55 Case Western Reserve Law Review, 749, 751.

109 This is also emphasised by J.M. Newman, note 96, 708.

lead to *more* sanctions, but to *better* ones. It will strengthen 'free markets', by allowing companies to compete on non-frivolous innovations, which is the only driving force not impeding innovation - as opposed to interventionism.

In fact, only the creation of an independent legal regime for predatory innovation will ensure (i) not to suffer the consequences from legal uncertainty surrounding the notion of technological ties; (ii) not to experience the differentiated appreciation of technological ties depending on which continent is concerned; (iii) to cover many practices that cannot be reached under the legal regime of technological ties; (iv) to grant judges the opportunity to complete a comprehensive analysis of the practices that are today wrongfully analysed under technological tying; and (v) to create a legal regime that will avoid legal errors, thereby benefiting innovation.

Designing the legal regime to be applied to predatory innovation will be a subject for tomorrow,[110] but it implies for courts and competition authorities to first recognize the notion of predatory innovation. The time has come!

110 T. Schrepel, note 75.

Chapter 6:

Streamlining EU Law Enforcement in a Regulated Digital Market Environment

*Pieter Van Cleynenbreugel**

1. Introduction

As part of its Digital Single Market (DSM) agenda,[1] the European Union proposed the adoption of new legislative proposals aimed at removing remaining regulatory and practical obstacles to cross-border digital transactions. The envisaged regulatory initiatives would seek to create the conditions for a competitive e-commerce environment within the EU Internal Market. As a result, competition law concerns are at the forefront of the Commission's DSM agenda. At the same time, however, despite those concerns, the Commission has paid only limited attention to how the application and implementation of the projected DSM regulations would interact with existing competition law enforcement structures and mechanisms, which the DSM proposals would complement. Streamlining DSM and competition law enforcement, it is submitted, would nevertheless be necessary, if only to avoid risks of over- and under-enforcement of the EU DSM regulatory framework as a whole.

This Chapter seeks to map the legal framework structuring the implementation and application of DSM regulations and identify the potential frictions flowing from that setup. Proceeding in three parts, the second Section will outline how the DSM agenda has been set up partially as a direct response to the Commission's Sector Inquiry in E-Commerce.[2] Using examples from the

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1 Commission, Proposal of 6 May 2015 to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, A Digital Single Market Strategy for Europe, COM/2015/192 final.

2 See http://ec.europa.eu/competition/antitrust/sector_inquiries_e_commerce.html (last accessed: 17 October 2017) for an overview of the steps and results of this inquiry.

geo-blocking, data portability, and roaming abolition proposals made, that Section will highlight how the EU institutions perceive the interaction between competition law provisions and market regulation in this context. On the basis of that analysis, the third Section will focus on the envisaged enforcement mechanisms accompanying the newly proposed Regulations. Arguing that no in-depth reflections on such enforcement have been made, the Chapter considers how enforcement would align with or differ from competition law enforcement in this particular field. Comparing the interaction between competition law and market regulation in the DSM strategy with earlier examples in the realm of earlier market liberalisation initiatives, it will identify two important similarities (breaking up barriers to trade and facilitating cross-border competition) as well as two fundamental differences (absence of natural monopolies and of intensely state regulated sectors, and less need for *ex-ante* enforcement) in the overall DSM enforcement setup. Acknowledging those similarities and differences, it will be submitted, allows to identify gaps in the current enforcement setup. Linking those gaps to a lack of attention paid to both coherence and legitimacy of enforcement mechanisms in place, the fourth Section will call on the European Commission to take a clearer stance regarding those gaps, inviting a more in-depth reflection on how to ensure a more streamlined DSM enforcement framework.

It should be clear at the outset of this Chapter that its purpose is neither to criticise the Commission for having proposed its DSM agenda, nor to advocate that competition law enforcement is the only way to guarantee that traders do not maintain barriers to cross-border digital commerce. The main objective is to explore the extent to which DSM regulatory proposals complement competition law enforcement and the extent to which the complementary relationship between both sets of provisions is in need of better streamlining at the enforcement level. The suggestions offered therefore only constitute starting points for a more in-depth reflection on the role of better structured EU law enforcement in newly regulated digital markets.

2. The Digital Single Market Agenda: Enhancing Competition in Digital Markets through Regulation

The Commission's ambitious DSM agenda comprises a multi-layered regulatory and policy programme, aimed at ensuring that users of digital technologies can benefit from the Internal Market to its fullest extent (2.1). An important part of that strategy consists in the removal, by means of EU regulation, of remaining barriers to cross-border trade and competition in this domain. Building upon

the results of a Commission sector-inquiry and multiple impact assessments, new regulatory proposals have been adopted to that extent (2.2).

2.1. An Ambitious and Informed Regulatory Agenda

The Juncker Commission has listed the development of a Digital Single Market as one of its top ten political priorities.[3] The aim of such a market is to create an environment in which the free movement of goods, persons, services, and capital is ensured and where individuals and businesses can seamlessly access and exercise online activities under conditions of fair competition, and a high level of consumer and personal data protection, irrespective of their nationality or place of residence.[4] To make this happen, a full-blown regulatory and political strategy has been set up by Commission Vice-President Andrus Ansip,[5] proposing actions on three fronts. First, the agenda seeks to offer better access for consumers and businesses to online goods and services across Europe. According to the Commission, that would require the rapid removal of key differences between the online and offline worlds to break down barriers to cross-border online activity.[6] Second, the agenda envisages to create the right conditions for digital networks and services to flourish. In order to make that happen, high-speed, secure, and trustworthy infrastructures and content services, supported by the right regulatory conditions for innovation, investment, fair competition, and a level playing field are to be offered.[7] Third, the agenda wants to maximise the growth potential of our European Digital Economy. In order to do so, the Commission requires investment in ICT infrastructures and technologies such as Cloud computing and Big Data, and research and innovation to boost industrial competiveness as well as better public services, inclusiveness and skills.[8]

The first limb of the Commission's agenda has been targeting in particular e-commerce practices rendering cross-border transactions more difficult. More specifically, according to the Commission, the current digital market would require "an appropriate e-commerce framework, preventing unfair discrimination against consumers and businesses when they try to access

3 Commission, 'A New Start for Europe: My Agenda for Jobs, Growth, Fairness and Democratic Change', Opening Statement of 15 July 2014 by Jean-Claude Juncker, Candidate for President of the European Commission, 6, available at: https://ec.europa.eu/commission/sites/beta-political/files/juncker-political-guidelines-speech_en_0.pdf (last accessed: 17 October 2017).

4 Commission, A Digital Single Market Strategy for Europe, note 1, 3.

5 See https://ec.europa.eu/commission/priorities/digital-single-market_en (last accessed: 17 October 2017) for an overview in this respect.

6 Commission, A Digital Single Market Strategy for Europe, note 1, 4.

7 Ibid, 9.

8 Ibid, 13.

content or buy goods and services online within the EU."[9] From that point of view, regulatory proposals targeting unjustified geo-blocking[10] and seeking to increase transparency in parcel delivery tariffs[11] have been proposed. Complementarily, measures aimed at copyright reform contribute to that aim.[12] Although technically not belonging to this first limb, it could be maintained that the abolishing of roaming tariffs in mobile communications[13] and measures aimed at guaranteeing personal data protection[14] additionally also envisage to increase consumer and business confidence when engaging in cross-border transactions.

When proposing those Regulations, the Commission chose to rely on its Internal Market harmonisation legal basis enshrined of Article 114 TFEU.[15] That provision requires, for a measure validly to be adopted, that the EU legislator demonstrates that likely (future) obstacles exist in the Internal Market or that competition within the EU territory will be distorted if no regulatory action is taken.[16]

Supporting evidence of distortions of competition within the Internal Market in this regard has been inferred from a Commission's Directorate-General for Competition sector inquiry on anti-competitive practices in the e-commerce

9 Ibid, 4.
10 Ibid, 6.
11 Ibid, 5.
12 Ibid, 6.
13 Ibid, 9, belonging to the third limb of the Digital Single Market agenda.
14 Commission, A Digital Single Market Strategy for Europe, note 1, 13. See on data protection, Regulation 2016/679 of the European Parliament and of the Council of 27 April 2016 on the Protection of Natural Persons with Regard to the Processing of Personal Data and on the Free Movement of Such Data, and Repealing Directive 95/46/EC (General Data Protection Regulation), [2016] OJ L 119/1.
15 According to Article 114 TFEU, the European Parliament and the Council shall, acting in accordance with the ordinary legislative procedure and after consulting the Economic and Social Committee, adopt the measures for the approximation of the provisions laid down by law, regulation or administrative action in Member States which have as their object the establishment and functioning of the Internal Market. See on the scope of that provision, D. Wyatt, 'Community Competence to Regulate the Internal Market', in M. Dougan and S. Currie (eds), *50 Years of the European Treaties. Looking Back and Thinking Forward,* (Hart, 2009), 99-100.
16 Case C-376/98 *Germany v Parliament and Council (Tobacco Advertising I)* [2000] ECLI:EU:C:2000:544, para 86; case C-491/01 *British American Tobacco (Investments) and Imperial Tobacco* [2002] ECLI:EU:C:2002:741, para 61; case C-380/03 *Germany v Parliament and Council* [2006] ECLI:EU:C:2006:772, para 37-38; case C-217/04 *United Kingdom v Parliament and Council* [2006] ECLI:EU:C:2006:279, para 6; case C-58/08 *Vodafone and Others* [2010] ECLI:EU:C:2010:321, para 33; case C-270/12 *United Kingdom v Parliament and Council* [2014] ECLI:EU:C:2014:18, para 113; see also A. Somek, *Individualism. An Essay on the Authority of the European Union,* (Oxford University Press, 2008), 114, for a critical analysis of this formulation.

industry.[17] Following the publication of a preliminary Report in September 2016[18], the Final Report of 10 May 2017 confirmed that anti-competitive practices still prevail to a significant extent in this realm.[19] The findings of the Report relate above all to geo-blocking, a set of traders' practices consisting in the blocking of access to websites and other online interfaces and the rerouting of customers from one country version to another.[20] According to the Commission's Final Report, "38% of retailers collect information on the location of the customer in order to implement geo-blocking measures. Geo-blocking most commonly takes the form of refusal to deliver goods to customers in other Member States, followed by refusals to accept payments from such customers."[21] Given, however, that such blocking practices do not always result from anti-competitive agreements between undertakings prohibited by Article 101 TFEU or from abusive actions by a dominant undertaking incompatible with Article 102 TFEU,[22] many individual businesses' geo-blocking practices fall outside the scope of EU competition law. At the same time, however, unilateral geo-blocking measures may produce the same market partitioning or foreclosing effects as anti-competitive agreements would, even when engaged in by non-dominant undertakings. From that point of view, the identified anti-competitive effects coupled with the limited scope of application of EU competition law convinced the European Commission that regulatory action was necessary in this field.[23]

Taking similar considerations into account, yet without directly being able to rely on the sector inquiry but rather on earlier inquiries[24] or specifically adopted impact assessments,[25] gaps identified in parcel pricing delivery actions and, even roaming tariffs in mobile telecommunications, have also given rise to new EU regulatory instruments adopted under the banner of the Digital Single Market agenda.

17 See http://ec.europa.eu/competition/antitrust/sector_inquiries_e_commerce.html (last accessed: 17 October 2017) for a complete overview.
18 http://ec.europa.eu/competition/antitrust/sector_inquiry_preliminary_report_en.pdf (last accessed: 17 October 2017).
19 See Commission, Final Report on the E-Commerce Sector Inquiry, SWD/2017/154 final.
20 Ibid, para 47.
21 Ibid, para 47.
22 Ibid, para 48.
23 See Commission, Proposal of 25 May 2016 for a Regulation of the European Parliament and of the Council on Addressing Geo-Blocking and Other Forms of Discrimination Based on Customers' Nationality, Place of Residence or Place of Establishment within the Internal Market and Amending Regulation 2006/2004 and Directive 2009/22/EC, COM/2016/289 final, 5. See also the impact assessment prepared by the Commission in this context, SWD/2016/173 final.
24 See for roaming, http://europa.eu/rapid/press-release_MEMO-01-262_en.htm?locale=en (last accessed: 17 October 2017).
25 See Commission, Proposal of 25 May 2016 for a Regulation of the European Parliament and of the Council on Cross-Border Parcel Delivery Services, COM/2016/285 final, 1.

2.2. Filling Gaps in the Application of EU Competition Law

It is clear from the previous Section that limits on the applicability of EU competition law have given rise to different DSM regulatory proposals. EU regulatory intervention complements the application of the EU competition law provisions. In general, the regulations or proposals concerned therefore also include explicit or implicit 'conflict rules' ensuring that no contradictory enforcement of EU competition law and of the regulations concerned is taking place. The regulatory instruments adopted or proposed in relation to the abolition of roaming tariffs in mobile communications (2.2.1.), making cross-border parcel delivery tariffs more transparent (2.2.2.), and the targeting geo-blocking practices (2.2.3.) particularly reflect this posture.

2.2.1. Roaming Regulation

By virtue of the so-called Roaming Regulation, the EU legislator caps fees for access to a telecommunications operator's network in another Member State.[26] Regulation 531/2012 obliges mobile telephone operators to conclude and accept agreements permitting access for retail customers on another operator's network in another Member State.[27] In addition, the Regulation introduces a fixed maximum price that is to be set by the receiving network when concluding roaming agreements with networks from other Member States.[28] By capping the fees charged at wholesale level between the different mobile telecommunications or payment system operators, the EU envisages to eradicate restrictive effects for retail clients using the services of one telecommunications or payment system operator in another Member State.[29] In that regard, the Regulation also directly imposes a cap on the retail tariff to be charged to a customer. As of 15 June 2017, that tariff has been abolished entirely.[30]

26 The competence of the EU to abolish roaming charges as a matter of Article 114 TFEU has been confirmed by the Court of Justice in case C-58/08 *Vodafone and Others* [2010] ECLI:EU:C:2010:321. See also D. Keyaerts, 'Ex ante Evaluation of EU Legislation Intertwined with EU Judicial Review? Comment on Vodafone Ltd v Secretary of State for Business, Enterprise and Regulatory Reform (C-58/08)', (2010) 35 European Law Review, 873 and M. Brenncke, 'Annotation of Case C-58/08, *Vodafone Ltd and Others v Secretary of State for Business, Enterprise and Regulatory Reform*, Judgment of the Court of Justice (Grand Chamber) of 8 June 2010', (2010) 47 Common Market Law Review, 1803.

27 See Article 3 of Regulation 531/2012 of the European Parliament and of the Council of 13 June 2012 on Roaming on Public Mobile Communications Networks within the Union, [2012] OJ L 172/10.

28 Ibid, Articles 7 and 9.

29 Ibid, Articles 8 and 10.

30 See, for background, http://europa.eu/rapid/press-release_MEMO-17-885_en.htm (last accessed: 17 October 2017).

Presenting the abolition of retail roaming charges as one of the key features of the Commission's DSM achievements so far,[31] the Roaming Regulation also reflects how DSM regulatory initiatives add themselves to existing EU competition law rules. In this particular situation, mobile operators established in one Member State may charge excessive prices to fellow operators seeking roaming access for their customers in that Member State. As the first operator is not necessarily dominant on the market in that Member State, its practices of charging those fees will not necessarily be considered abusive behaviour. In the same way, the presence of similar charges imposed by different mobile operators in that Member State does not necessarily flow from an anti-competitive agreement between them, captured by Article 101 TFEU. As a result, the Regulation is meant to address practices similar to the ones prohibited by EU competition law provisions, but potentially falling outside the scope of those provisions. In doing so, the Roaming Regulation complements, rather than fully replaces, EU competition law provisions.

2.2.2. Cross-Border Parcel Delivery Services Proposal

Confronted with widely varying tariffs in the context of cross-border parcel deliveries, the European Commission also seeks to bring more transparency in the determination and application of those tariffs. To that extent, it proposed a Regulation on 25 May 2016, the discussions on which are still on-going.[32] The proposed Regulation seeks to "ensure, in order to safeguard and promote effective competition and to protect users, transparent and non-discriminatory access to the services and infrastructure necessary for the provision of cross-border parcel delivery services".[33] To that extent, all parcel delivery services providers have to provide basic information with the national regulatory authorities of the Member States in which they are active.[34] Those providers offering universal postal services also have to submit their public tariffs to the same authority.[35] At that stage, the authority assesses the affordability of tariffs. All non-affordable tariffs have to be justified.[36] In addition, universal

31 See, indeed, https://ec.europa.eu/digital-single-market/en/roaming (last accessed: 17 October 2017).

32 Commission, Proposal of 25 May 2016 for a Regulation of the European Parliament and of the Council on Cross-Border Parcel Delivery Services, note 25. On 20 December 2017, the Council agreed on the text of the Regulation, which will now be subject to a plenary voting in the European Parliament. See http://www.consilium.europa.eu/en/press/press-releases/2017/12/20/council-endorses-deal-on-cross-border-parcel-delivery-services/ (last accessed: 17 January 2018).

33 Ibid, Article 1.

34 Ibid, Article 3.

35 Ibid, Article 4.

36 Ibid, Article 5.

services providers have to meet all reasonable requests for access to all network elements and associated facilities as well as relevant services and information systems, necessary for the provision of cross-border parcel delivery services. Multilateral agreements concluded in that regard should promote such system's access.[37]

The proposed Regulation, although not imposing fixed prices on the services providers concerned, requires them to give access to their networks and to operate affordable tariffs. In demanding those providers to be more transparent, the Regulation seeks to complement the prohibitions on anti-competitive abusive or collusive actions. On the one hand, the obligation to offer access at reasonable rates to another universal service provider is meant to complement the obligation imposed on dominant undertakings to grant access to its own facilities essential to the development of a new product or service.[38] Whereas universal service providers do not necessarily engage in such abusive action when constraining access to their network – or by virtue of not being dominant – the Regulation would require them to grant access anyway. On the other hand, transparency in relation to tariffs permits to uncover potentially anti-competitive agreements or concerted practices and also takes away temptations to engage in concluding them. From that perspective, this obligation also complements EU competition law.

2.2.3. Geo-Blocking Proposal and Online Content Portability Regulation

In an attempt to remove existing barriers to cross-border online trading activities,[39] a proposal of 25 May 2016 envisages to prohibit all kinds of cross-border geo-blocking practices. Audio-visual services are excluded from that proposal.[40] When using an online interface, traders shall not, through the use of technological measures or otherwise, block or limit customers' access to that interface for reasons related to the nationality, place of residence or place of establishment of the customer. Nor should they redirect customers to a version of their interface that is different, by virtue of its layout, use of language or other characteristics that make it specific to customers with a particular nationality, place of residence or establishment, from the one which the customer originally

37 Ibid, Article 6.
38 Commission, A Digital Single Market Strategy for Europe, note 1, 5.
39 Ibid.
40 See Article 1(6) of Commission, Proposal for a Regulation Addressing Geo-Blocking, note 23. On 20 November 2017, a provisional agreement on the final text of the Regulation has been reached. The text will now be approved by the Council and the plenary meeting of the European Parliament. See http://www.europarl.europa.eu/news/en/press-room/20171120IPR88426/ending-unjustified-geo-blocking-online-shoppers-must-be-treated-equally (last accessed: 17 January 2018).

wanted to access.[41] Article 6 of that proposal declares void all geo-blocking agreements restricting passive sales. Whilst the Commission proposed an absolute prohibition of such clauses, the Council and Parliament propose to amend this provision by stating that only those clauses that could not be justified by Article 101(3) TFEU or by Regulation 330/2010 exempting vertical agreements from the Article 101(1) TFEU prohibition would be considered void.[42] In being formulated in this way, the proposal clarifies that it offers a complement to the application of the EU competition law provisions.

Seeking also to avoid some practices of blocking access to audio-visual content when travelling abroad within the European Union, the European Commission additionally proposed an Online Content Portability Regulation in December 2015.[43] This proposed Regulation, adopted in June 2017 as Regulation 2017/1128 and expected to enter into force on 20 March 2018,[44] would require that online service providers enable their subscribers to use the service in the Member State of their temporary presence by providing them access to the same content on the same range and number of devices, for the same number of users and with the same range of functionalities as those offered in their Member State of residence. This obligation is mandatory and therefore the parties may not exclude it, derogate from it or vary its effect. Any action by a service provider which would prevent the subscriber from accessing or using the service while temporarily present in a Member State, for example restrictions to the functionalities of the service, would amount to an illegal circumvention of the portability rights guaranteed by the proposed Regulation.[45] In addition, any contracts containing clauses that impose such limits are deemed unenforceable.[46] Again, this proposal adds itself to EU competition law provisions, also prohibiting certain clauses that would not be prohibited *per se* under Articles 101 or 102 TFEU.

41 Ibid, Article 3(1) and (2).
42 Newly proposed Article 6(2) of Commission, Proposal for a Regulation Addressing Geo-Blocking, note 23. The new proposal explicitly refers to Commission Regulation 330/2010 of 20 April 2010 on the Application of Article 101(3) of the Treaty on the Functioning of the European Union to Categories of Vertical Agreements and Concerted Practices, [2010] OJ L 102/1**.**
43 See Commission, Proposal for a Regulation of the European Parliament and of the Council Laying Down Rules on the Exercise of Copyright and Related Rights Applicable to Certain Online Transmissions of Broadcasting Organisations and Retransmissions of Television and Radio Programmes, COM/2016/594 final. K.N. Peifer, 'The Proposal of the EU Commission for a Regulation on Ensuring the Cross-Border Portability of Online Content Services in the Internal Market', in A. De Franceschi (ed), *European Contract Law and the Digital Single Market. The Implications of the Digital Revolution,* (Intersentia, 2016), 164.
44 See Article 11 of Regulation 2017/1128 of the European Parliament and of the Council of 14 June 2017 on Cross-Border Portability of Online Content Services in the Internal Market, [2017] OJ L 168/1.
45 Recital 18 of Commission, Proposal Exercise Copyright, note 43.
46 Ibid, Article 5(1).

3. Enforcement of the DSM Regulatory Agenda: Complementing Competition Law Enforcement?

The different proposals of regulations highlighted in the previous Section demonstrate that EU DSM legislation has been set up as a way to fill the voids left by EU competition law. Although they would, as such, complement EU competition law provisions, the newly proposed rules would essentially serve the same objectives as those existing provisions, extending them to, or embedding them in other regulatory fields or objectives. In that regard, the Commission's DSM strategy resembles, at least at first sight, earlier market liberalisation initiatives taken in the realm of energy and electronic communications, where regulation was meant as a means to complement the application of EU competition law provisions (3.1.). At the same time, however, the absence of natural monopolies implies that the need for *ex-ante* price-focused regulation is less acute. *Ex-post* enforcement becoming the key for DSM implementation, both specific DSM authorities and competition authorities could have complementary roles to play in guaranteeing a well-functioning EU digital market. When exercising those complementary roles, frictions may nevertheless arise. It will be submitted that those frictions so far have not received sufficient attention in the DSM's regulatory setup (3.2.).

3.1. Competition Law and Regulation: Lessons from the Past?

More specific instruments of EU market regulation have been relied on before as a means to complement EU competition law provisions. The 1990s in that respect saw diversified attempts to regulate – in a more competitive way – the electronic communications and energy sectors. State regulation in these sectors had been justified to overcome the network industry effects of so-called natural monopolies.[47] Given the infrastructural investments – the provision of communication cables, railway tracks, etc. – and the excessive personal and societal costs associated with it for each undertaking to provide these investments separate from each other, the establishment of railway, telecommunications, electricity, and gas distribution networks has often been considered to represent a natural monopoly. The first undertaking willing to invest its capital in the development of a network of railway tracks, communication cables, or energy distribution systems obtained an advantage over potential

47 For a concise definition of a natural monopoly see A. Ogus, *Regulation. Legal Form and Economic Theory,* (Clarendon, 1994), 78, defining a natural monopoly as a situation in which average production costs decline in the long run as output increases. This is mainly due to a high amount of preliminary costs involved prior to production.

future entrants, as these features constitute the essential facilities necessary for conducting economic activities in a particular industry.[48] Having made the costs of developing these networks, operators could effectively benefit from the network industries emerging as a result. The concept of 'network industries' refers to a bundle of complementary goods and services for which consumers shop.[49] Since a consumer cannot buy telecommunication services in its pure form, he / she might alternatively want to obtain access to a telecommunication network capable of delivering such service. As goods (telecommunication access through infrastructure) and services (the ability to engage in telecommunication with other persons) cannot effectively be separated in the eye of the consumer, they need to be bought and sold as a single whole. A single package of goods and services would thereby ensure that goods and services are compatible with each other and would allow a natural monopolist to profit from its investments.

State regulation of those networked natural monopolies has been justified as a remedy for negative externalities produced by network industries' effects. State regulation would be able to allow for universal network access, would ensure that tariffs for such services would not be overly high and would structure universal rates reflecting cross-subsidization among different geographical reasons as a matter of public interest.[50] At the same time, State regulation guaranteed a monopolist having made a significant investment to remain the sole provider of networked goods and services. The monopolist would have no incentive to create artificial barriers to entry and to engage in the inefficient wasting of resources in doing so.

The European Commission sought to rely on EU competition law in an attempt to make those industries more competitive. Article 106 TFEU has been instrumental in that regard. That provision states that in the case of public undertakings and undertakings to which Member States grant special or exclusive rights, Member States shall neither enact nor maintain in force any measure contrary to the rules contained in the Treaties, in particular to those rules provided for in Article 18 and Articles 101 to 109 TFEU. The third paragraph of that provision mandates

48 On the notion of essential facilities in this understanding – and its development into an essential facilities doctrine in EU competition law, see A. Capobianco, 'The Essential Facility Doctrine: Similarities and Differences between the American and European Approach', (2001) 26 European Law Review, 554, for an assessment of how essential facilities could also be used as a tool to *promote* and *enable* competition.

49 On network industries in the realm of energy, M. Albers, 'Competition Law Issues Arising from the Liberalisation Process', in D. Geradin (ed), *The Liberalisation of Electricity and Natural Gas in the European Union,* (Kluwer, 2001), 4, referring to the integrated downstream – upstream energy provision frameworks.

50 See on these state-backed strategies D. Geradin, 'Introduction', in D. Geradin (ed), *The Liberalization of State Monopolies in the European Union and Beyond,* (Kluwer, 2000), ix.

the Commission to oversee the application of that provision. At its most basic level however, the provision declares that such undertakings are principally bound by EU competition law.

The Commission explicitly relied on that provision in the 1980s in the wake of the Internal Market completion programme. According to Larouche, Article 106(3) TFEU from then on served as a means for the European Commission to extend its supervision over nationally structured industries and to engage upon adopting legislation forcing these industries to open up for competition.[51] The scope of that provision has nevertheless been the subject of diverging interpretations. The Commission originally read into this provision a mandate directly to supervise and enforce Article 106(1) TFEU against national industries. In that understanding, the Commission would be able to promote, synchronize and accelerate national regulatory transformations towards liberalisation.[52] It equally read into that provision an obligation of surveillance and a duty to act to ensure compliance with Article 106 TFEU. In that understanding, the Commission would have been able to adopt individual decisions mandating a national industry to be liberalised in a specific modus. To the extent that the Member State failed to comply with that liberalisation decision, Article 106(3) TFEU would serve as a direct mandate to adopt an infringement decision.[53]

The Court of Justice nevertheless held that Article 106(3) TFEU only allowed for the Commission to specify general obligations under Article 106(1) TFEU by adopting directives.[54] Member States' non-compliance could only be addressed through the infringement procedure in Article 258 TFEU.[55] The obligation to specify the general obligations under Article 106(1) TFEU was therefore only limited to establishing the conditions under which particular sectors could be opened for competition. Article 106(3) TFEU directives were only able to create conditions that would allow for competition.[56] Nothing did however seem to impede the Commission to include specific enforcement mechanisms into these directives.[57]

51 P. Larouche, *Competition Law and Regulation in European Telecommunications,* (Hart, 2000), 40, 53-60.

52 See Commission, Green Paper, Towards a Dynamic European Economy, Green Paper on the Development of the Common Market for Telecommunications Services and Equipment, COM/87/290 final, 186: "It may use, as appropriate, its mandate under Article 90(3) of the Treaty to promote, synchronise and accelerate the on-going transformation."

53 See also P. Larouche, note 51, 41, referring to the proposal for a 1987 Directive Implementing the Open Network Provision.

54 Case C-202/88 *France v Commission* [1991] ECLI:EU:C:1991:120, para 17.

55 P. Larouche, note 51, 43, determines that to be the Council's position.

56 Case C-202/88, *France v Commission* [1991] ECLI:EU:C:1991:120, para 18.

57 P. Larouche, note 51, 54-55.

Whilst the opening of markets and the granting of access to essential facilities has been initially justified on the basis of Article 106(3) TFEU, competition in these sectors has also become the subject of replacing supranational regulatory standards.[58] Those 'regulatory' rules determine access, frequencies, and rates in network industries as a matter of supranational law aimed at harmonising diverging national legal conditions. Such provisions have as a result been adopted on the basis of Article 114 TFEU.[59] It has convincingly been demonstrated that both 'competitive' and 'regulatory' approaches are essentially complementary within a single 'market integration' framework within EU law. A competition approach is often contrasted with a regulatory approach. Whilst competition is meant to open up industries for potential competitors and to establish a competitive sphere, regulation serves as an interventionist device to make that sphere work appropriately.[60] Because of its market integration focus, EU competition does not however *per se* exclude regulation.[61] Liberalisation predominantly serves as a device to re-regulate national industry structures at the supranational level. As a result of that position, liberalisation initiatives have been grounded on both Article 106(3) TFEU and Article 114 TFEU, without marking a clear boundary between both provisions.[62]

3.2. How Different Is DSM Liberalisation?

In comparison with the earlier market liberalisation initiatives mentioned above, a similar complementary approach towards market regulation and competition law has guided the development of DSM regulatory proposals (3.2.1.). At the same time, however, DSM proposals differ from regulatory initiatives in the realm of electronic communications or energy by virtue of their more *ex-post* focus in the absence of previously existing natural monopolies. As a result, the focus on enforcement characteristically accompanying regulatory proposal in this domain differs as well (3.2.2.).

3.2.1. A Similar Starting Point, Albeit with a More Ex-Post Enforcement Focus

The DSM proposals reflect the same regulatory philosophy also underlying the electronic communications and energy liberalisation actions undertaken in

58 P. Nihoul, *Les télécommunications en Europe. Concurrence ou organisation de marché?,* (Presses universitaires de Louvain, 2005), 477.

59 Case C-202/88, *France v Commission*, ECLI:EU:C:1991:120, para 25, referring to Article 114 TFEU as more general in power than the specific Article 106(3) TFEU.

60 See S. Breyer, *Regulation and Its Reform,* (Harvard University Press, 1982), 1.

61 In contrast with US law, see P. Nihoul, note 58, 465-467.

62 P. Nihoul, note 58, 552 for a conceptualisation in that regard.

the 1990s. At their core, they seek to avoid that undertakings engage in anti-competitive actions by virtue of the belief or reality that their actions escape the application of the EU competition law provisions. From that point of view, the DSM proposals also represent a way to increase competition within the Internal Market, bringing competition where (potentially) anti-competitive activities remain.

Contrary to earlier liberalisation initiatives, however, the markets that the DSM proposals seek to regulate are already competitive on their own. In the fields of electronic communications and energy, state-owned enterprises were acting as monopolists and shielded from competitive interference from outside. This situation required a less intensive *ex-ante* approach towards market regulation. In the realm of electronic communications and energy, such an approach was a necessary precondition for creating newly competitive markets. That implied, on the one hand, the unbundling of communication or energy network operators and the providers of services or goods and, on the other hand, the granting of fair access rates and criteria for providers to operators' distribution networks.[63] Only once those preconditions had been put in place, it was believed, true cross-border competition, at least between providers, could be achieved.

In the DSM context, multiple private operators exist, relying on digital platforms or trading venues but maintaining distinctions on the basis of residence, establishment or nationality of the customers concerned. The aim of the DSM regulations is to remove any privately-maintained barrier to cross-border competition, as it is believed that those private actions are rendering e-commerce transactions more difficult.[64] More directly policing those practices, it is believed, will contribute to enhanced competition within those markets and may avoid certain practices from escaping EU competition law scrutiny. As such, the DSM regulatory proposals do not envisage to create a newly competitive market, but rather to perfect an existing market's functioning. They seek to oblige operators already active on a market to grant access to their networks or to accept, under certain conditions, orders from nationals or residents of other Member States. In the absence of such possibilities, it is believed, no true cross-border competition will ever emerge in the realm of e-commerce or mobile telecommunications.

63 See for a regulatory example in the realm of railway liberalisation, Directive 2001/14/EC of the European Parliament and of the Council of 26 February 2001 on the Allocation of Railway Infrastructure Capacity and the Levying of Charges for the Use of Railway Infrastructure and Safety Certification, [2001] OJ L 75/29.

64 See Commission, Final Report on the E-Commerce Sector Inquiry, note 19, para 48 for an illustration of that philosophy.

From that point of view, the scope and intensity of the DSM regulatory proposals differ from the energy and electronic communications steps taken in the past. Whilst the latter imposed clear conditions upon network operators and foresaw the establishment of new independent national regulatory authorities to oversee unbundling and access processes whilst ongoing,[65] the DSM regulations only provide for additional prohibitions or call for increased transparency. Indeed, the largest difference between both types of market liberalisation attempts lies in the attention paid to the enforcement of EU law. The example of the geo-blocking regulations is illustrative in this regard.[66] The 2015 proposal only explains that contractual limitations to subscription portability are prohibited, leaving it to the Member States to enforce that provision. The 2016 proposal requires more oversight in terms of compliance. Designated Member State enforcement bodies will have to ensure compliance with the Regulation.[67] In that respect, the European Commission obliges Member States' competent consumer protection authorities to have minimum enforcement powers to tackle intra-Union consumer law violations. Those powers should include the possibility to close down a website, domain or similar digital site, service or account or a part of it, including by requesting a third-party or other public authority to implement such measures or the possibility to impose penalties on traders.[68] The authorities should be able either directly to impose those sanctions or apply to competent Member State courts to do so.[69] The European Parliament proposes to add that the sanctions are to be communicated to the Commission, which is to make them publically available on its website.[70] No new authorities would be established, which oversee in an *ex-ante* way how the liberalisation process takes shape. A market already being in existence, existing authorities at Member State level would be called upon to intervene, policing in an *ex-post* fashion the application of new EU regulations.

65 See on that point D. Geradin, 'Institutional Aspects of EU Regulatory Reforms in the Telecommunications Sector: An Analysis of the Role of National Regulatory Authorities', (2000) 1 Journal of Network Industries (5), 32.

66 See for more information and background P. Van Cleynenbreugel, 'The European Commission's Geo-Blocking Proposals and the Future of EU E-Commerce Regulation', (2017) 11 Masaryk University Journal of Law and Technology, 39-62.

67 Article 7(1) of Commission, Proposal for a Regulation Addressing Geo-Blocking, note 23.

68 Article 8(2) of Commission, Proposal of the Commission of 25 May 2016 for a Regulation of the European Parliament and of the Council on Cooperation between National Authorities Responsible for the Enforcement of Consumer Protection Laws, COM/2016/283 final.

69 Article 9(1) of Commission, Proposal for a Regulation on Cooperation between National Authorities, note 68.

70 Amended Article 7, para 2a of Commission, Proposal for a Regulation Addressing Geo-Blocking, note 23.

3.2.2. Potential Frictions Related to an Ex-Post Enforcement Focus

The difference in enforcement focus compared to electronic communications and energy liberalisation frameworks could result in more readily present frictions in the application and enforcement of both competition law and regulation. In the fields of energy and electronic communications, authorities intervene in principle at different stages of commercial transactions. National regulatory authorities in those settings intervene in a rather *ex-ante* fashion, accompanying and controlling the setting up of business activities, whereas competition authorities intervene only in response to certain types of behaviour.[71] This overall complementarity of enforcement has continued to justify the presence of different authorities overseeing different facets of those regulations.[72] Sensing some kind of difficulties, some Member States nevertheless integrated their competition and sector-specific authorities.[73] The Netherlands offer a key example of that approach.[74]

Given the focus of the DSM agenda on *ex-post* enforcement, both competition authorities and other regulatory authorities tasked with the application and enforcement of EU 'digital markets law' could intervene at the same stage, each applying the EU rules (competition law rules and complementary DSM rules) which fall within their enforcement mandate. The potential for cumulated EU law enforcement that results from this has been confirmed explicitly as a possibility by the European Commission in the context of DSM regulation.[75] This in principle would allow both competition authorities and more specialised national enforcement authorities to shape how EU DSM law, both from a competition law and a regulatory perspective, will be interpreted and applied. Whilst this seems to be welcome in theory, three types of potential frictions cannot be ruled out in this particular case.

First, in the absence of a clear enforcement mandate granted to either specialised authorities or competition authorities with regard to DSM law enforcement, competition authorities may assume that, in the presence

71 See for a complete analysis in that respect N. Dunne, *Competition Law and Economic Regulation,* (Cambridge University Press, 2015), 48-54.

72 For those discussions in general see K. Cseres, 'Integrate or Separate – Institutional Design for the Enforcement of Competition Law and Consumer Law', available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2200908 (last accessed: 17 October 2017).

73 See, in general, A. Ottow, 'Erosion or Innovation? – The Institutional Design of Competition Agencies. A Dutch Case Study', (2014) 2 Journal of Antitrust Enforcement, 25-43.

74 See Wet van 28 februari 2013, houdende regels omtrent de instelling van de Autoriteit Consument en Markt, available at: www.wetten.nl (last accessed: 17 October 2017).

75 See Commission, Proposal for a Regulation on Cooperation between National Authorities, note 68, 5.

of complementary DSM regulations, other authorities will take the lead in enforcing EU DSM law, maybe even including the competition law aspects of it,[76] whereas those authorities may believe the inverse given the close relationship between competition law and DSM provisions. As a result, a situation of under-enforcement could arise: competition authorities would not focus their limited resources on digital market cases and specialised authorities, believing that competition authorities would do so, would also focus on other law enforcement mandates they may also have, e.g. in the realm of more general consumer protection enforcement powers. In that situation, practices prohibited by either competition law or DSM regulation may not be targeted and enforced at all. This may result in unlawful practices remaining in place.

Second, to the extent that national competition authorities focus on digital markets, specialised authorities may do the same, vigorously enforcing both sets of rules to similar kinds of behaviour. This, in itself, may result in over-enforcement of DSM-related EU law provisions, also targeting practices that are not worthy of those authorities' attention. In that understanding, both competition and DSM authorities would apply their respective sets of rules to the same set of traders, without necessarily coordinating their actions in this field. Whilst DSM and competition authorities would apply different regulatory frameworks to the same actors, the feeling amongst those actors that they are being targeted may have an impact on how EU digital market integration proceeds in practice. To the extent that traders are subjected to more intensive enforcement than other sectors experience, they would be less likely further to expand in the digital realm. If that were to be the case, the very purpose of the DSM agenda – stimulating digital commerce in the EU Internal Market – would be frustrated by the overzealous accumulation of different enforcement actors and tools.

Third, another issue arising here is that EU law will be implemented and enforced with differentiated intensity in different Member States. Some Member States have entrusted hybrid enforcement powers to competition authorities or have more generally allowed for more soft enforcement procedures to be in place. Governed by the EU law principle of national institutional or procedural

76 As competition law enforcement powers may be shared between different national authorities. For an example in this respect see the UK's Office of Communications (OFCOM) under the Communications Act 2003, available at: www.legislation.gov.uk/ukpga/2003/21/contents (last accessed: 17 October 2017).

autonomy,[77] those diversified procedures and features cannot be ruled out, as long as effective and dissuasive enforcement of the DSM provisions concerned can be guaranteed.[78] In the context of electronic communications and energy, harmonisation of the structure and procedures of national regulatory authorities has been proposed therefore.[79] In comparison, within the framework of DSM regulations, some powers are entrusted to postal regulators (parcel delivery), others to consumer protection authorities (geo-blocking), which do not necessarily have to be structured as independent administrative authorities. Indeed, consumer protection authorities can also just be a part of existing government administrations.[80] In addition to that already impressive variety, competition authorities also manifest similar hard and soft enforcement tools to ensure compliance with EU competition law.[81] It cannot be excluded that those different approaches towards procedures and enforcement contribute equally to the over- or under-enforcement challenges identified in the first two points here. In the absence of more clarity surrounding the risks for such challenges to be manifested, it is regrettable that the European Union did not at least pay some attention to the need for a more structured or coherent enforcement framework in light of the similarly structured nature of DSM and competition law provisions.

4. Addressing the Risk of Frictions between DSM and Competition Law Enforcement

On a more abstract level, the potential frictions characterising the relationship between the (proposed) DSM regulations and existing competition law enforcement tools reflect a more fundamental lack of attention paid to both coherence and legitimacy as policy concerns underlying the adoption and enforcement of EU legislation (4.1.). Given the importance of both

77 See M. Szydlo, 'National Parliaments as Regulators of Network Industries: In Search for the Dividing Line between Regulatory Powers of National Parliaments and National Regulatory Authorities', (2012) 10 International Journal of Constitutional Law, 1142, explicitly referring to the principle of national institutional autonomy.

78 Commission, Proposal for a Regulation on Cooperation between National Authorities, note 68.

79 On those conditions see P. Van Cleynenbreugel, *Market Supervision in the European Union. Integrated Administration in Constitutional Context*, (Brill, 2014), 60-70.

80 Commission, Proposal for a Regulation on Cooperation between National Authorities, note 68, 7 confirms this, as had already been confirmed in Article 4(4) of Regulation 2006/2004 of the European Parliament and of the Council of 27 October 2004 on Cooperation between National Authorities Responsible for the Enforcement of Consumer Protection Laws (the Regulation on Consumer Protection Cooperation), [2004] OJ L 364/1.

81 See for an approach towards soft law instruments by competition authorities E. Mattioli, *Commitments and Settlements in EU Competition Law: Public Enforcement through Negotiation*, (Leuven, 2017), 340.

considerations in the setup of any regulatory or enforcement system, especially the ones combining multiple enforcement features,[82] three alternative ways forward in taking those concerns more seriously and attempting to streamline different ways of enforcing complementary EU DSM legal provisions will be proposed here (4.2.).

4.1. Limited Reflection on the Coherence and Legitimacy of Streamlined DSM and Competition Law Enforcement

Throughout EU legal scholarship, the need for coherence in the interpretation and application of the law has always been emphasised.[83] Although coherence remains a notion difficult to define, it generally refers to different elements being logically consistent and constituting a part of a unified whole.[84] One could envisage both field-internal and -external coherence to be required. Internal coherence refers generally to the requirements that different sets of rules falling in one sub-field of the law – competition law in particular – are being applied and interpreted in accordance with the same objectives, principles, and purposes. In the realm of competition law, the need for such coherence has been referred to above all in relation to the parallel application and enforcement of EU and Member States' provisions prohibiting collusive behaviour and abuse of dominant economic positions.[85] External coherence would refer to interpreting different sub-fields of the law in a logically consistent way as part of a unified whole. In the realm of competition law again, academic debates have mainly focused on the relationship and need for a more coherent interpretation between the EU competition law provisions and the four fundamental freedoms guaranteeing the abolition of restrictions to the movement of goods, persons, services, and capital.[86] Given the significant attention devoted to the need for a coherent application of EU competition law rules, it is quite surprising that those coherence debates have not yet been extended to the interaction between newly proposed DSM regulation instruments and the existing competition law provisions. The risks and gaps outlined in previous Sections highlight that more

82 P. Van Cleynenbreugel, 'Institutional Assimilation in the Wake of EU Competition Law Decentralisation', (2012) 8 Competition Law Review, 285-312 and, more recently, W. Sauter, *Coherence in EU Competition Law,* (Oxford University Press, 2016), 12.

83 For an overview see N.N. Shuibhne, *The Coherence of EU Free Movement Law,* (Oxford University Press, 2013), 31-32.

84 In the *Oxford English Dictionary*, coherence is defined as being logically consistent and constituting a part of a unified whole.

85 On that point see W. Sauter, note 82, 106-108.

86 See in this respect J.B. Cruz, *Between Competition and Free Movement. The Economic Constitutional Law of the European Community,* (Hart, 2002), 176.

steps may be needed to avoid coherence issues to arise once the DSM rules enter into force.

The belief that coherence has been taken into account sufficiently throughout the DSM measures neglects the fact that regulation, although coherent on paper, also need to be considered as legitimate in the eyes of those subjected to it. In order to enhance such legitimacy, not only the fact that those rules have been adopted suffices. In that context, individuals subjected to regulation also demand a 'just' environment in which their claims on whether or not practices threaten substantive goals, could be heard and discussed. As a result, the output of a legitimate enforcement system requires a complementary input set of 'justice' or 'due process' standards.[87] These input standards govern the pre-adoption, decision making, and post-adoption litigation stages of EU law application. At the pre-adoption stage, input legitimacy standards seek to address democratic participation, transparency, and consultation requirements.[88] At the decision making stage (both general and individual),[89] input standards aim to guarantee an informed decision following consultation with and hearing of parties concerned.[90] At the post-adoption litigation stage, input standards foresee the availability of independent and impartial judicial review, during which a meaningful debate on the legality merits of a particular decision can be conducted in an adversarial context.[91] These input standards complement output / efficiency by guaranteeing a *procedural justice* framework through which a perception of *fairness* is attached to such efficient outcomes.[92] In the DSM proposals, the EU legislator seems to believe that those input legitimacy-constitutive features in place are sufficient at this point or can be compensated for by the fact that new regulations will be adopted. The

87 The distinction between output as efficiency and input as justice is not entirely aligned to legitimacy studies in the field of political science that distinguish input, *process,* and output within a wide variety of legitimacy discourses, see C. Lord and P. Magnette, 'E Pluribus Unum? Creative Disagreement about Legitimacy in the EU', (2004) 32 Journal of Common Market Studies, 183-202.

88 On democratic enhancements in the European Union as a remedy for this so-called deficit see V. Schmidt, 'Democracy and Legitimacy in the European Union Revisited: Output, Input and Throughput', (2013) 31 Political Studies, 2-22, focusing on the contrast between output and input.

89 On the relevance of that distinction in EU administrative law see P. Craig, *EU Administrative Law,* (Oxford University Press, 2012), 298-303.

90 See J. Flattery, 'Balancing Efficiency and Justice in EU Competition Law: Elements of Procedural Fairness and their Impact on the Right to a Fair Hearing', (2010) 7 Competition Law Review, 76.

91 See P. Craig, note 89, 294-297.

92 On fairness and procedural justice in EU law see in general E.B. de la Serre, 'Procedural Justice in European Community Case-Law Concerning the Rights of the Defense: Essentialist and Instrumental Trends', (2006) 12 European Public Law, 225-250. See also F. de Witte, 'Transnational Solidarity and the Mediation of Conflicts of Justice in Europe', (2012) 18 European Law Journal, 700, attributing EU intervention to moulding policy choices. EU's legitimacy would then arrive from steering national decision making to incorporate interests of those excluded in national decision making processes.

risks outlined in the previous Section do nevertheless demonstrate that more attention may need to be paid to input legitimacy features as well.

4.2. Proposals to Enhance Coherence and Legitimacy

It is submitted that the gaps in attention towards coherence and legitimacy need to be addressed more directly in order to set up a better DSM law enforcement framework and with a view to minimise the risk of the frictions identified being materialised. To that extent, three policy options – albeit imperfect – can be envisaged as plausible and feasible in seeking to enhance coherence and legitimacy in this context.

First, it could be argued that a more integrated enforcement of DSM regulations and EU competition law is desirable in order to avoid the frictions identified in the previous Section. In order to achieve that goal, the establishment of a single enforcement authority, preferably the competition authority, could be envisaged. In some Member States such as the Netherlands, the United Kingdom, or Poland,[93] competition and consumer protection law are already being enforced by one and the same authority. One authority would then be considered the legitimate enforcement body to apply a particular set of regulations, safeguarding the coherence of their interpretation. Although that integration does neither offer a guarantee for coordinated enforcement, nor imply a streamlined enforcement,[94] it would facilitate coordinated enforcement of DSM provisions and competition law. The exact scope or extent of such coordination would then still be determined in accordance with Member States' administrative law regimes. It cannot be excluded that, on this point, the European Commission would push the Member States more or less directly to envisage such integrated enforcement. EU law has imposed significant operating requirements on national administrative authorities in the past[95] and a proposal for a directive in the realm of EU competition law enforcement envisages similar

93 The Dutch Consumer and Markets Authority (ACM), https://www.acm.nl (last accessed: 17 October 2017), the U.K. Competition and Markets Authority (CMA), https://www.gov.uk/government/organisations/competition-and-markets-authority (last accessed: 17 October 2017) and the Polish Office of Competition and Consumer Protection (UOKIK), https://uokik.gov.pl/home.php (last accessed: 17 October 2017) constitute key examples in this regard.

94 See for an example of criticism and reflections J. Kremers, 'Essay: Hoe ver moet het consumententoezicht gaan?', (2014) Economisch Statistische Berichten Dossier No. 4683S, 39-43.

95 For an example see Article 3 of Directive 2002/21/EC of the European Parliament and of the Council of 7 March 2002 on a Common Regulatory Framework for Electronic Communications Networks and Services (Framework Directive), [2002] OJ L 108/33.

requirements being required from national competition authorities.[96] It would therefore not be entirely unimaginable that the Commission moves forward in this regard in the realm of integrated DSM regulation and competition law enforcement. This can be done, *inter alia*, by imposing an obligation to either integrate or to provide for similar and more specific enforcement mechanisms. From that point of view, it could be envisaged that the EU institutions, rather than only requiring the imposition of effective, dissuasive, and proportionate sanctions,[97] require more coherent commitment and fining procedures to be put in place at Member States' level. From a legal basis point of view, it would not seem impossible that such specific obligations can be imposed by virtue of Article 114 TFEU. The Court of Justice has accepted indeed that this provision serves as a basis directly to impose specific or tailored enforcement structures.[98] It can nevertheless be questioned whether it is politically feasible to take those steps. That is all the more so given the usual room for national institutional experimentation left to Member States when designing structures for the implementation of EU law.[99] On top of that, to the extent that the European Union wants to put in place different DSM regulations, attention to their enforcement seems to be a concern to be addressed at a later stage. At the same time, however, the establishment of specific authorities would put the internal coherence of EU competition law further at risk, as another authority would be tasked to interpret and apply competition law provisions in a specific context. That could be perceived a step back in the design of EU enforcement mechanisms, especially as competition law powers now seem to be ever more centralised at national competition authorities across the European Union.[100]

Second, a more indirect way of streamlining enforcement, even in the absence of an imposed integration obligation, could be envisaged in this respect. Given the related nature of DSM and competition law enforcement, the European Competition Network (ECN) of national authorities could play a major role in this regard. The ECN assembles all EU Member States' competition authorities and is chaired by the European Commission.[101] Meeting regularly, the ECN decides

96 See Commission, Proposal of 22 March 2017 for a Directive to Empower the Competition Authorities of the Member States to be More Effective Enforcers and to Ensure the Proper Functioning of the Internal Market, COM/2017/42 final.

97 Article 7 of Commission, Proposal for a Regulation Addressing Geo-Blocking, note 23.

98 See on that possibility P. Van Cleynenbreugel, 'Meroni Circumvented? Article 114 TFEU and EU Regulatory Agencies', (2014) 21 Maastricht Journal of European and Comparative Law, 64-88.

99 On that need for experimentation see P. Van Cleynenbreugel, note 79, 267.

100 As demonstrated by the examples of the Netherlands, the United Kingdom and Poland, mentioned in note 93.

101 On that network see D. Gerard, 'The ECN – Network Antitrust Enforcement in the European Union', in I. Lianos and D. Gerard (eds), *Research Handbook on EU Competition Law*, (Edward Elgar, 2016), 181-226.

on case allocation and serves as a tool informally to streamline enforcement priorities across the European Union.[102] Given that constellation, it would seem relatively easy also to propose, through the intermediary of the ECN, the prioritisation and coordination, at Member States' level, of DSM cases not technically falling within the scope of EU competition law. From that point of view, the European Commission could indirectly, yet effectively, offer guidelines to those national authorities on how to prioritise and set up coordination memoranda with other authorities tasked with the enforcement of EU competition law. Whilst not resolving all enforcement limits accompanying the EU's DSM regulatory approach, streamlining by intermediary of the ECN would permit to at least bring to the forefront the need for coordinated enforcement and to streamline the measures' application above and beyond the specific context of anti-competitive behaviour at the level of the Member States. This approach would leave Member States' national institutional autonomy intact, yet it would also offer a means for the European Commission to informally integrate or at least streamline DSM and competition law enforcement. It has to be mentioned, however, that the ECN is subjected to significant criticism for its non-transparent ways of operating.[103]

Given the limited legitimacy the ECN seems to bear, one could therefore argue that it may not be the best policy choice to entrust it also with guidelines seeking to streamline DSM and competition law enforcement. An alternative option in this regard would be to entrust national regulatory authorities, which also have been conferred major competition law enforcement powers in different fields, more explicitly with the task of applying and enforcing both DSM measures and competition law provisions in fields covered by those DSM regulations. One could imagine national electronic communications authorities exclusively to be involved in the enforcement of both the Roaming Regulation and competition law applied to mobile communications networks or consumer protection authorities with geo-blocking practices and anti-competitive geo-blocking behaviour. The fact that those authorities already form part of European networks – BEREC in telecommunications,[104] CPC in consumer protection law[105] – would facilitate coordination and streamlining activities between those actors. From that point of view, the networks of regulatory authorities may also, and

102 See for background in this regard, Commission Notice on Cooperation within the Network of Competition Authorities, [2004] OJ C 101/43.

103 See among others B. Perrin, 'Challenges Facing the EU Network of Competition Authorities: Insights from a Comparative Criminal Law Perspective', (2006) 31 European Law Review, 544.

104 Regulation 1211/2009 of the European Parliament and the Council of 25 November 2009 Establishing the Body of European Regulators for Electronic Communications (BEREC) and the Office, [2009] OJ L 337/1.

105 Regulation on Consumer Protection Cooperation, note 80.

perhaps more legitimately, play a streamlining or coordinating role in this regard. It should be made clear indeed that national authorities are part of networks – the Consumer Protection Coordination Network or the European Competition Network – aimed at streamlining and coordinating inter-state enforcement. The suggestions offered here are only aimed at ensuring the frictions identified do not materialise at the Member State level. It should nevertheless be clear that those networks also raise their own legitimacy and effectiveness issues.[106] In order to overcome them, reflections should also continue on ways in which to modify or upgrade those networks. This Section should therefore and above all be taken as an invitation to reflect more thoroughly on the challenges posited by the enforcement structures currently in place and the desire expressed by the European Commission to ensure the effective enforcement of newly adopted DSM measures.

Third and finally, the current enforcement structure seemingly envisaged by the Commission is a 'living apart together' framework. Both competition authorities and more specialised enforcement authorities are called upon to address distortions of competition in the Digital Single Market. Each operating under separate mandates – a general EU competition law mandate and a specific DSM regulations' mandate – they are deemed to operate in separate spheres and complement each other by guaranteeing that actions escaping either competition law or DSM regulation will be covered by the other enforcement structure in place. It is submitted that this structure can be maintained, on the condition that more concrete coordination and conflict resolution mechanisms are put in place.[107] Concrete examples of such coordination mechanisms could include, but are not limited to, obligations to make enforcement priorities in the e-commerce or digital realm explicit, to mutually report about one's activities in the DSM field, to involve case teams from both authorities in the investigation of specific infringements, to commit to participate in certain enforcement procedures, etc. Those obligations or tools do not necessarily have to be imposed by the EU institutions, but can also emerge from Member States' administrative practices. In the interest of ensuring the effective enforcement of DSM measures and in order to guarantee a coherent way to streamline DSM and competition law in practice, a Commission guidance document offering suggestions for a more streamlined enforcement and containing suggestions as to how to ensure

106 See on that issue M. Eliantonio, 'Judicial Review in an Integrated Administration: The Case of "Composite Procedures"', (2012) 7 Review of European Administrative Law, 65-102.

107 For a practical example of such developments in another field and in one EU Member State see the Royal Decree of 8 May 2014 on Cooperation between the Belgian Institute for Postal Services and Telecommunications (BIPT) and the Belgian Competition Authority, Moniteur belge, (14 July 2014), 53403.

the legitimate application and enforcement of those norms would be welcome. It could then fall upon the Member States, in collaboration with the Commission, to take action in light of this guidance document in order to avoid any frictions from being perpetuated in this regard. Questions nevertheless remain in this regard as to how far Commission guidance notices would have an effect in modifying Member States' institutional organisation practices. As instruments of soft law, they cannot be considered binding on national authorities and would leave the Commission with no command and control tools to ensure compliance with them.[108] In practice, this would result therefore in Member States retaining all autonomy to take initiatives for addressing coherence and legitimacy concerns identified. The result may be that attention will not be paid necessarily to a streamlined structuring of enforcement beyond each individual Member State. From that perspective, Commission guidance documents do not necessarily and directly contribute to ensuring a more coherent enforcement approach here. It would thus seem that this option offers lesser guarantees for streamlined enforcement within and across Member States than the previous two offered. At the same time, however, it would invite Member States to reflect more explicitly in an autonomous manner on how to integrate DSM enforcement features. Such reflections may result, at Member State level, in more legitimate enforcement solutions to be proposed and implemented.

Although the abovementioned suggestions do not as such offer a perfect template for a way forward, they do at least acknowledge the coherence and legitimacy gaps behind the frictions previously identified. Taking those gaps seriously and proposing ways – within the confines of powers conferred by EU law – to address them would at the very least guarantee that coherence and legitimacy issues are being debated, and hopefully remedied, to a fuller extent than is currently the case in DSM policy discussions.

5. Conclusion

The development of a comprehensive Digital Single Market strategy has resulted in the adoption of different Commission proposals seeking to eradicate remaining barriers to cross-border trade and competition. In doing so, those proposals complement existing EU free movement and competition law provisions, which already contributed to the removal of certain obstacles. In

108 See on the lack of binding effect of EU guidance in national procedures case C-360/09 *Pfleiderer* [2011] ECLI:EU:C:2011:389, para 21. *A fortiori*, it can be submitted that procedural guidance documents cannot serve as an effective tool to ensure a more streamlined enforcement in this regard.

presenting its Digital Single Market agenda, however, the Commission has paid only scarce attention to the enforcement of its new regulatory provisions. As a result, it is uncertain to what extent competition law enforcement bodies and specialised enforcement bodies will interact or deal with similar cases.

Calling for more clarity and a more informed discussion about how competition law enforcement and DSM implementation are to interact, this Chapter distinguished the market liberalisation focus of DSM initiatives from earlier Commission ventures in the realm of market liberalisation through EU regulation. Doing so allowed to identify some of the blanks left by the Commission's approach in this respect. Proposing a way forward, this Chapter offered three models of more streamlined EU competition law – DSM regulations enforcement and explored the feasibility of each of them. It was submitted that a more aligned enforcement structure, linking DSM enforcement with the activities of national competition authorities appears to be a necessary way forward in order to avoid either under- or over-enforcement of EU Digital Single Market regulation.

Chapter 7:

Universal Service in Electronic Communications: Pouring New Wine into Old Bottles?

*Csongor István Nagy**

1. Introduction

Universal service is a central element in the European thinking on the relationship of market competition and public services. In the age of market liberalization, the purpose of universal service is to preserve the public service in a competitive environment. This Chapter examines universal service from a comparative perspective with the purpose of showing that this concept should be fundamentally re-conceptualised in EU electronic communications.

Technological development has touched the purview of universal service on both sides of the Atlantic. In 2011, the US Federal Communications Commission (FCC) expressly endorsed broadband and mobile networks as universal service. While the European Commission (hereinafter the Commission) rejected the extension of universal service to broadband three times,[1] recently, it proposed making broadband part of the EU universal service package.[2] Indeed, the

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1 Last time in 2011, in the third review of electronic communications universal service. Commission, Universal Service in E-communications: Report on the Outcome of the Public Consultation and the Third Periodic Review of the Scope in Accordance with Article 15 of Directive 2002/22/EC, COM/2011/795 final, 4-5.

2 Commission, Proposal for a Directive of the European Parliament and of the Council Establishing the European Electronic Communications Code (Recast), COM/2016/590.

broadband revolution seems to be on its way. Finland, as the pioneer of European regulation, made broadband part of universal service already in 2010, followed by Spain and Malta.[3] It is noteworthy that, notwithstanding these developments, the foregoing countries still fell behind Niue (an island-state in the Pacific), which can take pride in being the first 'Wi-Fi nation' of the world: the entire island has been provided with free Wi-Fi internet coverage since 2003.

This Chapter conceptualises the general theory of universal service and establishes the pre-conditions of universal service regulation; then, it applies this general theory to the recent developments of electronic communications. The Chapter inspects how and in which direction this regulatory concept is evolving in EU electronic communications, taking into account the phenomenon of Next Generation Networks (NGN).

The Chapter argues that a service may qualify as universal, i.e. it is reasonable to subject it to universal service regulation, either if positive consumer externalities are present (the universal service is 'worth-while' – Case 1), or the consumption of the service qualifies as a 'fundamental entitlement' in the eyes of the society (the provision of the universal service is a 'must') and there is cost-diversity in the provision of the service (Case 2); or the conditions of both Case 1 and Case 2 are simultaneously met. It is submitted that technological development in electronic communications (broadband, NGN) should reshape the scope of universal service, because the pre-conditions of universal service will be met only in respect of the network connection, thus converting the right to universal service into a general right to get connected to the electronic communications 'highway', functioning as the nervous system of the society.

2. State, Market, Public Service, and Universal Service

In a market economy, human needs are normally satisfied by the market. The state is supposed to intervene only if the market does not yield the result wanted by the society[4] (whatever the expectations may be).[5] A market does not yield a desired result essentially for two reasons: either competition is not functioning properly (corrective intervention), or the society's expectations are excessive (supra-competitive intervention). Accordingly, the legitimacy

3 Commission, Universal Service in E-communications, note 1, 3.

4 S.B. Parsons and J. Bixby, 'Universal Service in the United States: A Focus on Mobile Communications', (2010) 62 Federal Communications Law Journal, 119, 133-34; C. Wolf, *Markets or Governments: Choosing between Imperfect Alternatives,* (2nd ed., The Rand Corporation, 1988); R.H. Coase, 'The Problem of Social Cost', (1960) 3 Journal of Law and Economics (1), 34.

5 Of course, the state may intervene also in cases where it is not supposed to.

of state intervention may be based either on a market failure (market power, information asymmetry, phenomenon of public goods, etc.) or on a public service requirement.[6] In this sense, competition is not an end in itself but a tool to ensure the most efficient use of the society's scarce resources. The society may have numerous supra-competitive expectations against the market: e.g. participation in social life, equality, social justice (or distributory justice), or the requirement of fair balance in media law. Of course, the distinction between the foregoing aspects is, to some extent, an over-simplification and in real life cases it is often very difficult to distinguish the two facets as they are jointly present.

At first glance, it may seem that it is the nature of the service (i.e. whether it is fundamental or not) that determines whether state intervention is needed or not. This is partially true; however, the vast majority of these needs are satisfied by the competitive market (e.g. financial services, insurance, and bread), and they are usually not regarded as public service by the law.[7] For instance, if certain remote settlements had no food supply, the society would demand state intervention; nonetheless, because the food supply is normally secured by the market, it generally does not qualify as a public service.

In general, the starting point of universal service is the citizens' entitlement to a particular service. The tension between the market and universal service is that the latter proceeds from what the citizens need and not from what the market is capable of ensuring. According to the concept of universal service, citizens have the right to a particular set of services, irrespective of geographic location and economic considerations.[8] Although this right is generally not legally enforceable, it is, on the part of the society, a social expectation towards the state.

The regulatory notion of universal service, essentially, encompasses three core requirements: availability, affordability, and adequate quality.[9] Nonetheless,

6 Cf. M.B. Nenova, 'The New Concept of Universal Service in a Digital Networked Communications Environment', (2007) 3 Journal of Law and Policy for the Information Society, 117, 131-32. The major justifications of "public intervention in the economy [are], in particular [,] market failures and redistributive considerations."

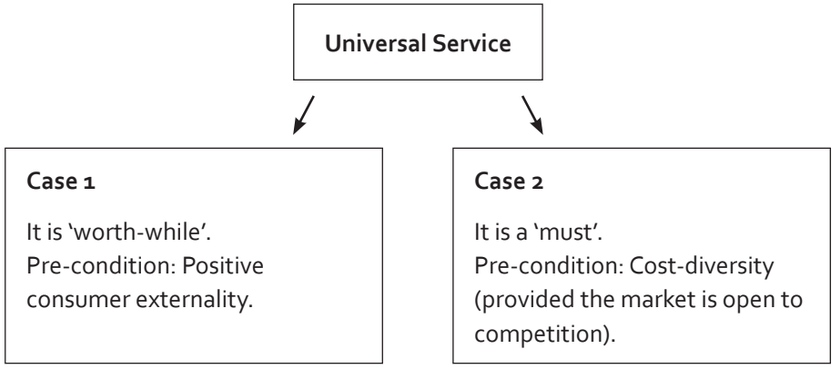
7 Cf. W. Sauter, 'Services of General Economic Interest (SGEI) and Universal Service Obligations (USO) as an EU Law Framework for Curative Health Care', (September 2007) TILEC Discussion Paper No. 2007-02, available on SSRN at: https://ssrn.com/abstract=1013261, 19-2.

8 Federal Communications Commission, Connecting America: The National Broadband Plan, 21, (2010), available at: www.broadband.gov/download-plan/ (last accessed :1 October 2017). "The desire for equal opportunity has long guided our efforts to make access to technologies universal, from electricity to telephony, from television to radio."

9 Commission, Green Paper on Services of General Interest, COM/2003/270 final, para 5. "[T]o guarantee access for everyone, whatever the economic, social or geographical situation, to a service of a specified quality at an affordable price."

from an economic perspective, these elements may be reduced to the question of price: the market is ready to provide the service to anyone in any quality as far as the proper price is paid. The lack of availability is, at least in economic terms, the charging of a prohibitive price (constructive unavailability). Accordingly, the chief problem is not that the market is disinclined to provide the service, but that there is no demand for the service at the price the market would charge.

Universal service may be explained with both corrective (Case 1) and supra-competitive considerations (Case 2).[10]



The provision of universal service may be economically 'worth-while'.[11] External economic effects may pertain to certain market arrangements, which may be either positive or negative. If a consumer decides not to consume a product, his choice may be rational and socially optimal, because he may spend his money on another product that is more valuable for him (the utility of which is higher). Nevertheless, if consumer externality is significant, non-consumption may lead to market failure due to sub-optimal consumption. In such cases, consumer surplus (utility minus price) is negative on the individual level, while positive on the social level. Hence, universal service may aim at supporting the consumption of the product (service) in cases where there is negative individual but positive social consumer surplus, thus ensuring the optimal volume of consumption. By way of example, the value accruing to subscriber A increases if consumer B also gets connected to the telephone network through a subscription: A may

10 Cf. M.B. Nenova, note 6, 131–32. Universal service contributes to the achievement of the following objectives: "(i) internalization of network externalities; (ii) redistribution between users (of different locations and / or income groups); and (iii) the realization of some public goods (such as an all-encompassing communications network)."

11 For a detailed analysis see S.B. Parsons and J. Bixby, note 4, 133-41.

reach one more person on the basis of his telephone subscription, while his subscription fee remains unchanged (network externality). Hence, it may be reasonable for A to subsidize the subscription of B to some extent. Similarly, positive consumption externality emerges, by way of example, in the event that the calling party pays for the call but the call confers value also on the called party. In more general terms, a benefit may accrue to the party who is not paying for the call (call or use externality).[12]

Likewise, universal service may be justified by supra-competitive considerations as well (it is a 'must'): certain services are to be made available to all consumers irrespective of location, at affordable prices and adequate quality even if there is no positive consumer externality. At the same time, it is to be noted that in the event that universal service is based solely on supra-competitive considerations (i.e. there are no positive consumer externalities) and the market is liberalized (i.e. the universal service operates in a competitive environment), it is a necessary prerequisite that the costs of the service are not uniform in respect of the individual geographic units or consumer groups ('cost-diversity').

Cost-diversity is a generally valid proposition, which lies at the heart of traditional universal service at large. In the textbook universal service scenario, the costs of the service are diverse, while the entitlement logic of universal service demands uniform (or uniformly capped) prices. Competition may provide adequate service in certain segments but not in others, while the citizens have the same fundamental entitlement,[13] irrespective of where they live.[14] If the costs of the service are the same everywhere and in respect to all consumers, the question emerges whether there is any need for universal service regulation, or whether the regulatory approach is characterised by universal service at all. If the reason why the market is not living up to the society's expectations is that the market is not performing well, e.g. there is market power, corrective intervention is needed. On the other hand, if the market is functioning well but it is still not living up to the society's expectations, this implies that the society's expectations are excessively high and the introduction of universal service brings forward a general state support mechanism that is not based on social conditions. It is hard to imagine a market economy that considers, for instance,

12 See e.g. J.T. Wenders, *The Economics of Telecommunications: Theory and Policy,* (Ballinger, 1987), 29; L.D. Taylor, *Telecommunications Demand in Theory and Practice,* (Springer, 1994), 9; I. Vogelsang and B.M. Mitchell, *Telecommunications Competition: The Last Ten Miles,* (AEI Press, 1997), 51; H. Gruber, *The Economics of Mobile Telecommunications,* (Cambridge University Press, 2005), 191; S.B. Parsons and J. Bixby, note 4, 134-135.

13 See A. McKenna, *A Human Right to Participate in the Information Society,* (Hampton Press, 2011).

14 See case C-320/91 *Paul Corbeau* [1993] ECLI:EU:C:1993:198, paras 17-18.

genuine competitive prices to be generally unsatisfactory (note that universal service grants entitlements to every citizen irrespective of social conditions).

While cost-diversity normally pertains to universal service whether or not it is justified by positive consumer externalities or by supra-competitive desires, it is a necessary prerequisite when universal service is based solely on supra-competitive considerations (i.e. there are no positive consumer externalities) and the market is liberalised. If the fruits of workable competition do not live up to the society's expectations in any of the geographic areas, it is highly dubious whether there is any point in introducing competition in the market. Otherwise, all segments of the market would be covered by universal service.

In electronic communications, a usual pre-condition of universal service is that the service's market penetration is high (i.e. it is used by the majority of the consumers).[15] This requirement is justified by the purpose of electronic communications universal service (i.e. the prevention of social exclusion). Only those communications systems involve the risk of social exclusion that are used by the majority but are not available to all members of the society. Nonetheless, this aspect of market penetration may not be conceivable in all other sectors which adopted the concept of universal service.

Of course, state intervention may also be warranted in cases where the costs of the service are uniform throughout the country (and in respect to all consumer groups), but consumers have different financial possibilities and society expects poor consumers not to be excluded from the service. This is, nevertheless, a question of social policy and does not come under the notion of universal service. Although both universal service and social support regimes involve wealth transfer and redistribution, there is a crucial difference between the two: social policy redistributes wealth from the rich to the poor in an environment where the market, presumably, performs well and provides the service at prices that may be regarded as generally affordable. Universal service implies that consumers have a certain entitlement irrespective of social status and the market, in the absence of state intervention, would not yield the optimal result in all segments, either because it cannot tackle the problem of positive consumer externality or because it fails to live up to the society's expectations.

It is noteworthy that intensive state intervention does not necessarily pertain to universal service. Whether intervention is necessary depends on the characteristics of the market. The most efficient arrangement is if the market

15 See Directive 2002/22/EC of the European Parliament and of the Council of 7 March 2002 on Universal Service and Users' Rights Relating to Electronic Communications Networks and Services (Universal Service Directive), [2002] OJ L 108/51, Annex V; 47 U.S.C. § 254(b) (2012).

provides the service in accordance with the requirements of universal service (availability, affordable prices, adequate quality, etc.). If this is the case, there is no need for state intervention;[16] the existence of workable competition may exclude the extension of universal service regulation to industries that would otherwise call for state intervention and to services that would qualify as fundamental. By way of example, the existence of workable competition was one of the reasons why the Commission did not extend the ambit of electronic communications universal service to mobile telephony in the European Union.[17]

Universal service is to be clearly distinguished from simple monopoly regulation. The latter is justified by the systematic presence of market power. The tackling of this market failure may warrant regulatory intervention (corrective intervention) where competition law seems to be unsuccessful. However, here, the rationale of the regulation is not to secure the citizens' entitlement to a particular service but to systematically protect consumers from abuses of market power. Once the market becomes competitive, the reasons for monopoly regulation evaporate; on the other hand, universal service regulation is not necessarily transitory and it may be needed also in cases where there is workable competition.

In sum, a service may qualify as universal (i.e. it is reasonable to subject it to universal service regulation) in the following two cases. First, positive consumer externalities are present. Second, the consumption of the service qualifies as a fundamental entitlement in the eyes of the society and the costs of the service are not uniform in respect of the individual geographical units or consumer groups (cost-diversity).

3. Historical Roots of Universal Service

The birth of the term *universal service* (but not that of the social notion) is intrinsically linked with the anti-competitive desire for legal monopoly.[18] The phrase itself is attributed to Theodore Vail, AT&T leader, who – with the introduction of the *"One Policy, One System, Universal Service"* slogan in 1907,

16 See W. Sauter, 'Services of General Economic Interest and Universal Service in EU Law', (2008) 33 European Law Review, 167, 179-80.

17 Commission, Communication on the Second Periodic Review of the Scope of Universal Service in Electronic Communications Networks and Services in Accordance with Article 15 of Directive 2002/22/EC, COM/2008/572 final, 6-7.

18 See C.H. Sterling, P.W. Bernt and M.B.H. Weiss, *Shaping American Telecommunications: A History of Technology, Policy, and Economics,* (Routledge, 2006), 197; M.L. Mueller, *Universal Service: Competition, Interconnection, and Monopoly in the Making of the American Telephone System,* (1997), 101; N. Garnham, 'Universal Service,' in W.H. Melody (ed), *Telecom Reform: Principles, Policies and Regulatory Practices,* (Lyngby, 1997), 200. Universal service was "mobilised as an attempted defence of the telephone monopoly."

and of the purpose of a uniform telephone system – tried to gain regulatory protection against antitrust law, and perhaps also against the possibly emerging competition.[19] The story had nothing to do with the citizens' fundamental entitlements. The requirement of universality did not relate to the service but to the infrastructure. New entrants (competing telephone companies) emerged, which did not interconnect, and a subscription with the local telephone company did not imply the automatic possibility of distance calls.[20] This plight was characterised much more by network externalities (external economic effects) than by the right to public service.[21]

Nevertheless, Vail poured old wine in a new bottle: the term 'universal service' was first used in 1907 (albeit not in the way it is used today), but the approach itself is much older. For instance, the US Constitution in 1787 provided that "the Congress shall have power to establish post offices and post roads"; today, this is called (postal) universal service.[22]

The term 'universal service' did not appear in statutory law for some time, although the concept was in fact present. By way of example, the 1934 US Communications Act did not use this phrase, but it was one of the Act's purposes to ensure, as far as possible, the nation-wide availability of electronic communications (wire and radio communication) services at reasonable prices.[23] The 1996 US Telecommunications Act was the first to codify universal service on the level of statutory language and terminated the (until then) implicit and intransparent system of cross-subsidisation[24] where distance calls supported local calls, household customers' fees were subsidised from the fees of business customers, and rural telephone services from the fees of urban calls.[25] The new

19 H. Cremer, F. Gasmi, A. Grimaud and J-J. Laffont, *The Economics of Universal Service: Practice,* (The Economic Development Institute of the World Bank, 1998), 1, available at: www.researchgate.net/publication/242231150_The_Economics_of_Universal_Service_Practice (last accessed: 1 October 2017). M.B. Nenova, note 6, 121.

20 M. Young, 'The Future of Universal Service. Does It Have One?', (2005) 13 International Journal of Law and Information Technology, 188, 189; M.L. Mueller, note 18; S.B. Parsons and J. Bixby, note 4, 123-24.

21 See F. Cugia di Sant'Orsola, 'Universal Service Obligation: Oh Dear, I Shall Be Late! Said the White Rabbit', (2008) 4 Convergence, 31, 34.

22 See e.g. US Postal Service, Universal Service and the Postal Monopoly: A Brief History, (2008), available at: http://about.usps.com/who-we-are/postal-history/universal-service-postal-monopoly-history.pdf; US Postal Service, Report on Universal Postal Service and The Postal Monopoly, (2008), available at: http://about.usps.com/universal-postal-service/usps-uso-report.pdf (last accessed: 1 October 2017).

23 C.H. Sterling, P.W. Bernt and M.B.H. Weiss, note 18, 197.

24 P. Valentiny, 'Az univerzális szolgáltatás és a közszolgáltatások értelmezéséről az Európai Unióban', (2000) 47 Közgazdasági Szemle, 341, 350, available at: http://epa.oszk.hu/00000/00017/00059/pdf/valentiny.pdf (last accessed: 1 October 2017).

25 C.H. Sterling, P.W. Bernt and M.B.H. Weiss, note 18, 198; Federal-State Joint Board on Universal Service, 97 FCC Rcd. 157, 12 (1997).

rules were meant to transmit universal service in the world of competitive market and to make its financing explicit and transparent.[26]

The justification of universal service in the telephone industry was two-fold: network externality (positive consumer externality) and considerations related to social entitlements were both present.[27] The first justified the existence and necessity of universal service with the special characteristics of the telecommunications network. The second justification is traced back to social considerations (social 'entitlement'). Here, the strongest argument seems to be the citizens' right to participate in social life that is one of the practical prerequisites of the exercise of certain civil and political rights.[28]

Similar to the situation in the US, the term 'universal service' has not appeared in the European integration's founding Treaties or their amendments. The term used instead is 'services of general economic interest', which is the container-concept of 'universal service'. The notion is amplified in the secondary sources: "the concept of universal service refers to a set of general interest requirements ensuring that certain services are made available at a specified quality to all consumers and users throughout the territory of a Member State, independently of geographical location and, in the light of specific national conditions, at an affordable price."[29] As noted above, the three main elements of universal service may be reduced to the question of price: the market is ready to provide the service to anyone in any quality as far as the proper price is paid. The lack of availability is, at least in economic terms, nothing but the charging of a prohibitive price (constructive unavailability).

4. The Present and Future of Universal Service in Electronic Communications

Connection and 'communications products' are bifurcating in electronic communications. The telecommunications infrastructure has the tendency of becoming a huge communications 'highway', where traditional voice-transmission services are not the only product but are one of the many available

26 See K.Q. Abernathy, 'Preserving Universal Service in the Age of IP', (2005) 3 Journal on Telecommunications and High Technology Law, 409, 410-11.

27 M. Young, note 20, 191-192. As to the social considerations see H. Sawhney, 'Universal Service: Prosaic Motives and Great Ideals', (1994) 38 Journal of Broadcasting and Electronic Media, 375, 380; B. Regan, 'Ushering Universal Service Reform: Politically Feasible Legislative Principles', (2008) 16 Comm. Law Conspectus, 471.

28 See T.H. Marshall, *Citizenship and Social Class,* (1950); P. Preston and R. Flynn, 'Rethinking Universal Service: Citizenship, Consumption Norms, and the Telephone', (2006) 16 Information Society, 91, 95. For a criticism on the theoretical foundations of universal service, see M.L. Mueller, note 18, 101.

29 Commission, Green Paper on Services of General Interest, COM/2003/270 final, para 50.

products.[30] It is submitted that the scope of universal service should be gradually confined to (broadband) connection without specifying voice-transmission as one of the products covered by universal service.

In the EU, the scope of electronic communications universal service is determined mainly by Article 4 of Directive 2002/22/EC.[31] "Member States shall ensure that the services set out in (...) Chapter [II of the Directive] are made available at the quality specified to all end-users in their territory, independently of geographical location and, in the light of specific national conditions, at an affordable price."[32]

According to the currently effective provision, the fixed connection to a public communications network is the core of universal service. Certain requirements are applicable to this fixed connection (capacity of supporting voice and facsimile communications and functional internet access). Voice-transmission services (publicly available telephone services) are provided through this network connection. This provision slightly departs from the initial wording of Article 4 (which was amended by Directive 2009/136/EC).[33] The original wording of Article 4 enumerated certain communications products that were covered by universal service: fixed connection to the public telephone network and access to publicly available telephone services at a fixed location. Similar to the currently effective provisions, certain requirements were applicable to the quality of the fixed connection to the public telephone network: capacity of allowing telephone calls, facsimile communications, and functional internet access. It is to be stressed that while the initial text of Directive 2002/22/EC limited functional internet access to narrowband data rates, Directive 2009/136/EC "gave Member States the flexibility to define, where necessary, the data rates at national level, which may include broadband speeds."[34]

The distinction between *infrastructure* and *product* has been entailed by the technological and market developments the electronic communications sector saw in the last period. The transition to NGN reshaped the paradigm of electronic

30 See M.B. Nenova, note 6, 134–136.

31 Directive 2002/22, note 15, 51-77. Mainly but not exclusively: Universal service also embraces directory enquiry services and directories (Article 5), public pay telephones (Article 6) and special measures for disabled users (Article 7).

32 Article 3(1) of Council Directive 2002/22, note 15.

33 Directive 2009/136/EC of the European Parliament and of the Council of 25 November 2009 Amending Directive 2002/22/EC on Universal Service and Users' Rights Relating to Electronic Communications Networks and Services, Directive 2002/58/EC Concerning the Processing of Personal Data and the Protection of Privacy in the Electronic Communications Sector and Regulation (EC) 2006/2004 on Cooperation between National Authorities Responsible for the Enforcement of Consumer Protection Laws, [2009] OJ L 337, 11-36.

34 Commission, Universal Service in E-communications, note 1.

communications. The NGN is not a uniform network but a new system, based on packet-switched technology. Here, a wide range of communications services are provided in a scheme where the service and the transmission technology are separated: the information (voice) is converted into packages and these packages are transported from one network point to another. This system differs from older circuit-switched networks where two network points were to be connected before starting the communication and this connection could be used solely for the communication between the two network points. The NGN's core feature is the integration of voice and data transmission into a simpler and more flexible network based on packet-switching and internet protocol. This technology enables the transmission of data and voice in the same network.[35] Once this NGN technique becomes a reality for the entire electronic communications system, it will change the conception of universal service, because, fundamentally, it separates the infrastructure from the product it transmits.

At the dawn of telecommunications, the network and the service were, from a consumer perspective, mainly the same. The consumer normally purchased a voice-transmission service that transported from one location to another. In this scenario, access (or connection) and service had no independent functions for end-users and they could not be sold to them separately. Network infrastructure may have had an independent value for other (probably competing) service providers who may have wanted to lease it in order to provide service to their own customers. Nevertheless, this does not change the proposition that the service perceived by the consumer was the transportation of voice from one point to another, and the voice itself was only rarely an independent product. This picture gradually changed when the telecommunications network became the 'highway' of numerous services.[36]

In the EU, the scope of universal service has been revised three times, in 2005 / 2006, in 2008 and in 2011. In the first review procedure, the Commission concluded that even if mobile telephone service qualified as universal in nature (taking into account its significance in social life), one of the pre-conditions of universal service was missing: thanks to the competitive market, mobile telephone services were available for consumers at affordable prices and in

35 OECD, Rethinking Universal Service for a Next Generation Network Environment, (2005), available at: www.oecd.org/dataoecd/59/48/36503873.pdf (last accessed: 1 October 2017), 5.

36 Cf. M.B. Nenova, note 6, 137. "[C]ommunications should be thought of not only as 'transmission systems', but also in terms of their special role as channels carrying and disseminating information and content."

adequate quality.[37] The Commission also noted that even if mobile telephone networks did not have 100% coverage (in most Member States this was between 98% and 100%), complete coverage would entail a disproportionate financial burden on the society.[38] Likewise, the Commission did not extend universal service to broadband; contrary to mobile telephone services, the reason here was not effective competition but restricted coverage. The available statistical data suggested that while the number of citizens with broadband internet access was dynamically increasing, the majority of the citizens were still not using this service[39] and it was not predictable how the introduction of universal service regulation would affect the evolution and penetration of broadband in the market.[40]

The 2008 review had similar results. The Commission stressed that although it is very close to being included in universal service, broadband had not reached the coverage and penetration required.[41] While, on average, fixed broadband networks are available to 95.1% of the population of the EU, "this figure is only 82.8% in rural areas across the EU and 60% or less in rural areas of Bulgaria, Slovakia, Poland, Romania, and Cyprus."[42] At the same time, the Commission also questioned whether universal service regulation was the proper tool to get results in this field,[43] because the extension of universal service to broadband would significantly increase "the need for sectoral funding and 'cross-subsidisation' between groups of consumers."[44] Nonetheless, Member States were free to extend universal service to broadband (as Finland, Spain, and Malta did).[45]

In 2011, the Commission concluded that due to the different levels of development of national networks it was not advisable to include broadband in

37 See Commission, Universal Service in E-communications, note 1, 7-9.
38 Commission, Report Regarding the Outcome of the Review of the Scope of Universal Service in Accordance with Article 15(2) of Directive 2002/22/EC, COM/2006/163 final, para 4.
39 Para 3.3.
40 Ibid.
41 Commission, Communication on the Second Periodic Review, note 17, 9; Commission, Universal Service in E-communications, note 1, 7.
42 Commission, Universal Service in E-communications, note 1, 4.
43 Commission, Communication on the Second Periodic Review, note 17, 12.
44 Commission, Universal Service in E-communications, note 1, 4-5.
45 Ibid, 3.

the universal service package on the EU level, though Member States remained free to make such an extension on the national level.[46]

Nonetheless, in 2016 the Commission submitted a proposal for a Directive establishing the European Electronic Communications Code, which finally makes broadband part of the EU universal service package.[47] Article 79 of the proposal reshapes the notion of functional internet access as an element of the universal service package, providing that "Member States shall define the functional internet access service (…) with a view to adequately reflect services used by the majority of end-users in their territory", which "shall be capable of supporting the minimum set of services set out in Annex V". However, Annex V contains a dynamic list of online services that appear to be effectively usable only over a broadband connection.[48]

The above developments parallel the contemporary history of US universal service. Under the 1996 Telecommunications Act, former incumbents were replaced by eligible telecommunications carriers (ETCs), which were allotted a particular area where they had to provide universal service. In exchange for this obligation, ETCs were entitled to universal service support. The FCC established four support mechanisms: support for rural, insular, and high-cost areas; support for low-income consumers; support for schools and libraries; and support for healthcare providers.[49]

46 Ibid,12. The Commission currently does not see a need to change the basic concept and principles of universal service as an instrument for preventing social exclusion. At this stage, it would not be appropriate to include mobility or mandate broadband at a specific data rate at EU level. The 2009 Telecom Package gives Member States the flexibility, in line with the principle of subsidiarity, to define the appropriate data rate for network connections delivering 'functional internet access' in the light of national conditions. Basic broadband access can therefore be part of USO at national level in justified cases, particularly where market forces and other policy tools and financing instruments have not led to universal broadband coverage. To minimise market distortions, Member States should take full account of public intervention tools other than USO to ensure broadband availability. Member States thus have the possibility, but no obligation, to include access to broadband connections within the scope of national USO.
47 Commission, note 2.
48 List of services which the functional internet access service shall be capable of supporting in accordance with Article 79(2): (1) E-mail, (2) search engines enabling search and finding of all type of information, (3) basic training and education online tools, (4) online newspapers / news, (5) buying / ordering goods or services online, (6) job searching and job searching tools, (7) professional networking, (8) internet banking, (9) eGovernment service use, (10) social media and instant messaging, (11) calls and video calls (standard quality).
49 Federal-State Joint Board on Universal Service, 97 FCC Rcd. 157, §§ VII-XI (1997). For a description of the operation of the above mechanisms, see B. Regan, note 27, 502.

In the US, the universal service policy results in a redistribution volume that may seem extraordinary to Europeans.[50] The payments of the Universal Service Administrative Corporation are steadily increasing. According to the FCC's 2010 Report, the Universal Service Fund has paid out approximately 7 billion USD per year.[51] The financing of the universal service shoulders a heavy burden on consumers as well. Although the contributions to the Universal Service Fund are paid by the service providers, they pass this burden on to their customers. For instance, in the third quarter of 2013 the payments to the Universal Service Fund operated as a 15.1% sales tax on final consumers.[52] The pace of the contributions' growth is also remarkable; in the first quarter of 2001, the universal service fee was 6.6827%, and in the first quarter of 2006, it was 10.2%;[53] between 2001 and 2013 the burden entailed by the universal service support mechanism increased by 8.4173%.

It should be noted that in the EU, notwithstanding the theoretical possibility of compensation for the provision of universal service, redistribution is generally minimal. In several Member States, although there are provisions regarding the compensation to be paid to Universal Service Providers, the latter have not been able to call in any considerable support.

The service elements of universal service are determined by the FCC. According to Section 254 of the Telecommunications Act, universal service represents "an evolving level of telecommunications services."[54] When defining the services that are supported by the federal universal service support mechanisms, the FCC "[s]hall consider the extent to which such telecommunications services (A) are essential to education, public health, or public safety; (B) have, through the operation of market choices by customers, been subscribed to by a substantial majority of residential customers; (C) are being deployed in public

50 See R. Frieden, 'Killing with Kindness: Fatal Flaws in the $6.5 Billion Universal Service Funding Mission and What Should be Done to Narrow the Digital Divide', (2006) 24 Cardozo Arts and Entertainment Law Journal, 47.

51 Federal Communications Commission, Trends in Telephone Service, (2010), available at: http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-301823A1.pdf (last accessed: 1 October 2017), 19-5, (showing that in 2007, this was 6.955 billion USD, in 2006 7.106 billion USD).

52 Federal Communications Commission, Proposed Third Quarter 2013 Universal Service Contribution Factor 1, (2013), available at: http://transition.fcc.gov/Daily_Releases/Daily_Business/2013/db0612/DA-13-1361A1.pdf (last accessed: 1 October 2017).

53 Federal Communications Commission, Proposed First Quarter 2001 Universal Service Contribution Factor 3, (2000), available at: http://hraunfoss.fcc.gov/edocs_public/attachmatch/DA-00-2764A1.pdf (last accessed: 1 October 2017); Federal Communications Commission, Proposed First Quarter 2006 Universal Service Contribution Factor 1, (2005), available at: http://hraunfoss.fcc.gov/edocs_public/attachmatch/DA-05-3203A1.pdf (last accessed: 1 October 2017). On the funding of universal service in the US, see A.S. Hammond IV, 'Universal Service: Problems, Solutions, and Responsive Policies', (2005) 57 Federal Communications Law Journal, 187, 187-200.

54 47 U.S.C. § 254(c)(1) (2012).

telecommunications networks by telecommunications carriers; and (D) are consistent with the public interest, convenience, and necessity."[55]

Proceeding from this statutory basis, the FCC included the following elements in its definition of 'universal service':[56] (1) connection to the telephone network (single-party service); (2) telephone voice-transmission service including the possibility of long-distance calls (voice grade access to the public switched network, with the ability to place and receive calls; Dual Tone Multi-frequency (DTMF) signalling or its functional equivalent; and access to interexchange services); (3) emergency calls (access to emergency services, including in some instances, access to 911 and enhanced 911 (E911) services); (4) customer service (access to operator services); (5) telephone directory (access to directory assistance); and (6) restriction of long-distance calls for low-income consumers (toll limitation services for qualifying low-income consumers).[57] The universal service mechanism follows the principle of technological neutrality.[58]

The FCC's enumeration diverges from the European list of service elements set out above. For example, the US universal service does not encompass public pay telephones (pay-phones). Although the FCC's above definition did not embrace internet access,[59] this was only an apparent difference; in effect, some kind of a 'functional internet-connection' was part of the system. The FCC's Universal Service Order explained that "voice grade access to the public switched network usually enables customers to secure access to an Internet Service Provider, and, thus, to the internet."[60] The Order explained that internet access consists of different components; besides the underlying information services, internet access also involves a network transmission component that connects the subscriber and the internet service provider. Thus, the connection to the telephone network normally involves the possibility of being connected to the internet; the information services going beyond this did not belong to the scope of universal service. The FCC determined that access to internet of higher quality than dial-up (voice grade access to the public switched network) was not to be included among the services supported under Section 254(c)(1) because it was not proved that a substantial majority of residential customers subscribed to higher quality internet access; furthermore, although high-quality

55 Ibid.

56 The above enumeration does not follow the structure established by the FCC but presents the elements of universal service in a scheme more familiar to Europeans. This implies some necessary simplification.

57 Federal-State Joint Board on Universal Service, 97 FCC Rcd. 157 (1997), para 22.

58 Ibid, paras 26-27, 46-48; *Alenco Commc'ns, Inc. v FCC*, 201 F.3d 608 (5th Cir. 2000).

59 C.H. Sterling, P.W. Bernt and M.B.H. Weiss, note 18, 272.

60 Federal-State Joint Board on Universal Service, 97 FCC Rcd. 157 (1997), para 83.

internet access may advance education and public health, this was not essential to advancing education and public health.[61] The exclusion of mobile telephony and broadband was reaffirmed by the FCC in 2003.[62]

Nonetheless, the policy towards broadband and mobile telephony recently changed. In 2007, the Federal-State Joint Board on Universal Service recommended including mobile telephony and broadband among the services supported by the universal service mechanism,[63] as well as the introduction of three separate support funds: landline telephony, wireless telephony, and broadband.[64] This recommendation was rejected by the FCC.[65] The Joint-Board reiterated its recommendation in 2010.[66] The American Recovery and Reinvestment Act of 2009 instructed the FCC to prepare a national broadband plan that "shall seek to ensure that all people of the United States have access to broadband capability."[67] The National Broadband Plan of 2010[68] recommended the reformation of universal service to include broadband, the transformation of the support fund for high-cost (rural, insular) areas into the Connect America Fund (CAF) to support the provision of affordable broadband and voice, and the creation of a Mobility Fund. In February 2011, the FCC, in conformity with the National Broadband Plan, proposed the inclusion of broadband into universal service and the transformation of the current high-cost programs into the Connect America Fund.[69] In October 2011, broadband and mobile networks were expressly designated as a universal service by the FCC.[70] The FCC adopted the following goals: (1) preserve and advance universal availability of voice service; (2) ensure universal availability of modern networks capable of

61 Ibid.

62 Federal-State Joint Board on Universal Service, 03 FCC Rcd. 170 (2003), paras 9-11, available at: www.universalservice.org/_res/documents/about/pdf/fcc-orders/2003-fcc-orders/FCC-03-170.pdf (last accessed: 1 October 2017). For an analysis of universal service from the perspective of mobile communications, see S.B. Parsons and J. Bixby, note 4, 119.

63 High-Cost Universal Service Support, 07J FCC Rcd. 4, (2007), para 4, available at: www.acuta.org/wcm/acuta/legreg/l158.pdf (last accessed: 1 October 2017).

64 Ibid, paras 11-23.

65 High-Cost Universal Service Support, 08 FCC Rcd. 262, (2008), para 13, available at: www.fcc.gov/fcc08262/FCC-08-262A1.pdf (last accessed: 1 October 2017).

66 Federal Communication Commission, Lifeline & Link Up Reform & Modernization, 11 FCC Rcd. 32, (2011), available at: www.universalservice.org/_res/documents/about/pdf/fcc-orders/2011-fcc-orders/FCC-11-32.pdf (last accessed: 1 October 2017).

67 47 U.S.C. § 1305(k)(2) (2012).

68 Federal Communications Commission, note 8.

69 Federal Communications Commission, Connect America Fund, 11 FCC Rcd. 13, (2011), para 18, available at: www.universalservice.org/_res/documents/about/pdf/fcc-orders/2011-fcc-orders/FCC-11-13.pdf (last accessed: 1 October 2017).

70 Federal Communications Commission, Connect America Fund, 11 FCC Rcd. 161, (2011), paras 43-73, available at: http://transition.fcc.gov/Daily_Releases/Daily_Business/2012/db0206/FCC-11-161A1.pdf (last accessed: 1 October 2017).

providing voice and broadband service to homes, businesses, and community anchor institutions; (3) ensure universal availability of modern networks capable of providing advanced mobile voice and broadband service; (4) ensure that rates for broadband services and rates for voice services are reasonably comparable in all regions of the nation; and (5) minimize the universal service contribution burden on consumers and businesses.[71]

In sum, recent developments in electronic communications have appeared in the debates about the scope of universal service on both sides of the Atlantic. There are two main elements that are considered to be included in universal service: mobile telephony and broadband. As far as mobile telephony is concerned, in the EU, competition seems to have made the need for universal service regulation less relevant. The general perception is that competition is effective and performs well in this segment and that the society has no expectations going beyond what the competition yields.[72] Nevertheless, in the context of the above developments, it seems that broadband is not a new element but rather a new universal service itself. "Broadband provides an opportunity not simply to expand universal service, but to reinvent it."[73]

5. Conclusions

This Chapter demonstrated that a service may qualify as universal (i.e. it is reasonable to subject it to universal service regulation) in two cases. First, positive (consumer) external effects are present. Second, the consumption of the service qualifies as a fundamental entitlement in the eyes of contemporary society, and the costs of the service are not uniform with respect to the individual geographical units or consumer groups (cost-diversity).

The development of telecommunications technology calls for the reconsideration of universal service. The debate focuses on whether universal service should be extended to mobile telephony and broadband.[74] However, it seems that technological development does not simply raise the question of expansion, it also forces regulators to reinvent universal service. The 'Net' is gradually becoming a telecommunications 'highway' where voice services are only

71 Ibid, para 17.

72 See Commission, Universal Service in E-communications, note 1, 9.

73 K. Werbach, 'Connections: Beyond Universal Service in the Digital Age', (2009) 7 Journal on Telecommunications and High Technology Law, 67, 71–72.

74 For further discussion of the debate in Germany regarding whether broadband should be included in the scope of universal service, see L. Gramlich, 'Next Generation Universal Service in the Field of Electronic Communications? Some Lessons from the Debate on Countrywide Broadband Service in Germany', (2009) 3 Masaryk University Journal of Law and Technology, 345.

one of many available services.[75] The internet holds various communications, commercial, educational, social, political and entertainment possibilities. In this instance, universal service may become a question of access / connection, diminishing the relevance of the actual services available through the pipeline. The right to universal service has the potential to become a general right to be connected to the society's 'nervous system'. In this situation, the distinction between high-cost and low-cost territories would be confined to 'highway' coverage, while the costs of the services transported on this 'highway' would normally not vary geographically; a circumstance that excludes averaging (i.e. the method of setting the price at the average of the low-cost and high-cost territories).

75 *Contra* M.B. Nenova, note 6, 142-44. Arguing that "besides the newly formulated tasks of universal service in terms of access to networks and innovation, … in the longer-term evolution of the Information Society, the idea of universal access will need to be extended to include content."

Chapter 8:

Should the European Union Regulate the Collaborative Economy?

*Marco Inglese**

1. Introduction

The 'collaborative economy', if one prefers the official denomination adopted by the European Commission, or the 'sharing economy', if one makes reference to the commonly used terminology,[1] is a new and rising phenomenon deeply affecting digital markets. The term sharing economy was introduced into the Oxford dictionary only in 2015, with the following definition: "an economic system in which assets or services are shared between private individuals, either free or for a fee, typically by means of the internet".[2] The Commission Communication 'A European Agenda for the Collaborative Economy' (hereinafter the Communication) defines the collaborative economy as follows: "business models where activities are facilitated by collaborative platforms that create an open marketplace for the temporary usage of goods or services often provided by private individuals. The collaborative economy involves three categories of actors: (i) service providers who share assets, resources, time, and / or skills – these can be private individuals offering services on an occasional basis ('peers') or service providers acting in their professional capacity ('professional services providers'); (ii) users of these; and (iii) intermediaries that connect – via an online platform – providers with users and that facilitate transactions between them ('collaborative platforms'). Collaborative economy transactions generally

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1 In this Chapter, the expressions 'sharing economy' and 'collaborative economy' will be used as synonyms.

2 https://en.oxforddictionaries.com/definition/sharing_economy (last accessed: 3 November 2017).

do not involve a change of ownership and can be carried out for profit or not-for-profit".[3]

Both definitions converge to the idea that, first, we are dealing with a new business model or business organisation; second, operators can act either in a professional or non-professional capacity; third, online platforms play a key role in matching demand and supply. In addition, other important features are technological innovation, user friendly payment, urban critical masses, and environmental awareness.[4]

The collaborative economy has given rise to an intense and multi-layered academic and civil debate. First, at a national and municipal level, many cities have been, and will be, facing new challenges stemming from the sharing economy.[5] It suffices to recall how the municipality of Berlin decided to regulate Airbnb hosts' activities, by setting a threshold according to which they can host travellers only for a limited number of days / nights.[6] Moreover, taxi drivers' associations in Brussels,[7] Barcelona,[8] and Lille[9] were quite active in combating Uber services, eventually leading to three preliminary referrals to the Court of Justice.[10] At the national level, while Italian courts have already delivered some interesting decisions,[11] the Italian Parliament is proposing a brand new

3 Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of Regions. A European Agenda for the Collaborative Economy, COM/2016/356 final.

4 V. Hatzopoulos and S. Roma, 'Caring for Sharing? The Collaborative Economy under EU Law', (2017) 54 Common Market Law Review (1), 81-128, 83.

5 A. De Streel and J.H. Bravo, 'Specific Liability Issues Raised by the Collaborative Economy – Professional Services', (Brussels, Barcelona, London, Impulse Paper for DG GROW of the European Commission, May 2016); G. Smorto, 'Impulse Paper No. 02 on the Business Authorisation / Licensing Requirements Imposed on Peer-Providers and Platforms in the Accommodation / Tourism Sector in Paris, Rome, Milan and London', (2016), Ref. Ares(2016)2558355.

6 See www.theguardian.com/technology/2016/jun/08/berlin-ban-airbnb-short-term-rentals-upheld-city-court, and the website set up by the Berlin municipality to monitor Airbnb beds and capacities: www.stadtentwicklung.berlin.de/wohnen/index_en.shtml (both last accessed: 3 October 2017). See also http://airbnbvsberlin.com/ (last accessed: 3 October 2017), for a collection of empirical data and statistics on the clash between Berlin and Airbnb.

7 See www.reuters.com/Article/us-uber-tech-belgium-idUSKCN0RG1XB20150916 (last accessed: 3 October 2017).

8 See http://elpais.com/elpais/2017/03/16/inenglish/1489653505_481419.html (last accessed: 3 October 2017).

9 See also www.reuters.com/Article/us-uber-court-eu/new-eu-court-blow-to-uber-over-french-taxi-case-idUSKBN19P0RH (last accessed: 3 October 2017).

10 See Section 2.1. of this Chapter.

11 Tribunal of Milano, *sezione impresa*, (undertaking's section [author's translation]), order of 2 July 2015 upheld in case 29325/14, judgment of 6 July 2015; Tribunal of Torino, civil chamber, case 15553/17, judgment of 24 March 2017; Tribunal of Rome, civil chamber, case 76465/16, order of 7 April 2017. See also E. Mostacci and A. Somma (eds), *Il caso Uber. La sharing economy nel confronto tra common law e civil law,* (Egea, 2016), 130-142.

legislative act based on the assumption that the collaborative economy needs to be properly regulated to ensure consumer protection and tackle tax evasion.

By contrast, the situation seems to be more fluid in the European Union. Whereas the Commission acknowledged that online platforms are an important element for the completion of the Digital Single Market,[12] to date, it has only issued the Communication. Furthermore, as anticipated above, the Court has already heard three preliminary referrals: one was rejected for procedural reasons;[13] whilst the now famous *Elite Taxi* and *Uber France* have reached the stage of the Advocate General's Opinion.[14] Advocate General Szpunar steered the solution of those two cases to the same conclusion, excluding Uber from the scope of application of Directive 2000/31 (hereinafter the E-Commerce Directive),[15] thereby considering it as a pure transport service. Nonetheless, at the time of writing, it remains to be seen whether the Court will endorse this approach.

Against this background, this Chapter will be divided into three parts and will be structured as follows. First, taking stock of the Communication and the critical assessment thereof,[16] it will sketch out the salient features and problems the collaborative economy is posing in and to the EU Internal Market. In doing so, it will also make reference to the above-mentioned Opinions in the two *Uber* cases. Second, it will engage in an analysis of the current Italian legislative proposal in order to understand if this might be considered as a useful benchmark, or even a model, for potential EU regulatory intervention. Third, it will explore beforehand whether the EU is competent to regulate the sharing economy and, if so, it will delve into the structure of a potential harmonisation measure. Finally, and again, pending the judgments in the two *Uber* cases, it will argue that a Commission legislative proposal would be desirable to the extent that the Court will be more and more active in striking down national rules allegedly hindering the Internal Market freedoms, notably the freedom to provide services, while Member States will neither be enacting new legislation, nor amending existing

12 Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of Regions. Online Platforms and the Digital Single Market Opportunities and Challenges for Europe, COM/2016/0288 final.

13 Case C-526/15 *Uber Belgium BVBA v Taxi Radio Bruxellois NV* [2016] ECLI:EU:C:2016:830.

14 Opinions of Advocate General Szpunar delivered on 11 May 2017 and 4 July 2017, case C-434/15 *Asociación Profesional Elite Taxi v Uber Systems Spain SL* [2017] ECLI:EU:C:2017:364 and case C-320/16 *Criminal proceedings against Uber France SAS* [2017] ECLI:EU:C:2017:511.

15 Directive 2000/31/EC of the European Parliament and of the Council of 8 June 2000 on Certain Legal Aspects of Information Society Services, in Particular Electronic Commerce, in the Internal Market (Directive on Electronic Commerce), [2000] OJ L 178/1.

16 G. Smorto, 'Critical Assessment of European Agenda for the Collaborative Economy. In-depth Analysis for the IMCO Committee', (2017), IP/A/IMCO/2016-10, PE 595.361.

legislation, in order to guarantee the smooth development of the collaborative economy.

2. Positioning the Collaborative Economy in the Current Narrative of the EU Internal Market

The completion of the then common market has been at the core of the institutions' agenda since the Single European Act.[17] This goal has been pursued through careful harmonisation measures, thereby balancing fundamental freedoms and other interests,[18] and the constant intervention of the Court. While cases regarding the free movement of goods are still relevant especially from a theoretical point of view[19] and for the challenges the internet is bringing,[20] those concerning the freedom to provide services, sometimes entangled with the freedom of establishment, are nowadays more copious.[21] It suffices to think, for instance, of the stream of judgments dealing with gambling[22] and patients' mobility.[23] Furthermore, new potentialities are already enshrined in the advent of the so-called fourth industrial revolution, the internet of things and the 'servitisation' of industry; despite this, the collaborative economy does not squarely fit into these new categories.[24]

Due to its inner novelty and the lack of a settled jurisprudence, the sharing economy has not yet been encapsulated in any of the aforementioned categories. Therefore, the Communication acknowledges the new challenges which the sharing economy is posing to the completion of the EU Digital Single

17 White Paper from the Commission to the European Council. Completing the Internal Market, COM/85/310 final.

18 A good example is Directive 2001/83/EC of the European Parliament and of the Council of 6 November 2001 on the Community Code Relating to Medicinal Products for Human Use, [2001] OJ L 311/67.

19 P. Oliver and S. Enchelmaier 'Free Movement of Goods: Recent Developments in the Case Law,' (2007) 44 Common Market Law Review (3), 649-704; L.W. Gormley, 'Inconsistencies and Misconceptions in the Free Movement of Goods,' (2015) 40 European Law Review (6), 925-939.

20 See case C-108/09 *Ker-Optika bt v ÀNTSZ Dél-dunántúli Regionális Intézete* [2010] ECLI:EU:C:2010:725; case C-322/01 *Deutscher Apothekerverband eV v o8oo DocMorris NV and Jacques Waterval* [2003] ECLI:EU:C:2003:664.

21 See CJEU, Annual Report 2016, 90. See also V. Hatzopoulos, 'The Court's Approach to Services (2006-2012): From Case Law to Case Load?', (2013) 50 Common Market Law Review (2), 459-501.

22 *Ex multis*, see CJEU, Joined cases C-72/10 and C-77/10 *Marcello Costa and Ugo Cifone* ECLI:ECLI:EU:C:2012:80; Joined cases C-338/04, C-359/04 and C-360/04 *Criminal proceedings against Massimiliano Placanica, Christian Palazzese and Angelo Sorricchio* ECLI:ECLI:EU:C:2007:133.

23 *Ex multis*, see case C-372/04 *The Queen, on the application of Yvonne Watts v Bedford Primary Care Trust and Secretary of State for Health* [2006] ECLI:EU:C:2006:325; case C-173/09 *Georgi Ivanov Elchinov v Natsionalna zdravnoosiguritelna kasa* [2010] ECLI:EU:C:2010:581.

24 J. Hojnik, 'The Servitisation of Industry: EU Law Implications and Challenges', (2016) 53 Common Market Law Review (6), 1575-1624, 1578 and 1587.

Market. To start with, it stipulates that the collaborative economy is a business model according to which 'operators' can exchange goods, yet without a change of ownership, and / or services facilitated through an online platform. When it comes to operators, there are at least three categories of subjects: professionals, consumers / peers, and platforms themselves. Therefore, a sharing economy transaction is carried out in an online environment, e.g. a platform, which usually makes it easier to match demand and supply.

This creates the problem of delimiting such a transaction to the extent that both parties ignore the identity or the profit or not-for profit motive of the counterparty; hence, there is a clear issue of information asymmetry according to which it is difficult to establish trust between the subjects involved. In essence, an end-user / peer, again, the terminology could be very broad, can be at the same time either a trader / seller acting in his professional capacity or a natural person / consumer, thereby making it difficult to foresee the applicable legal regime, since some guarantees are applicable solely in a business-to-consumer (B2C) transaction, while being totally absent in a consumer-to-consumer (C2C) one.[25] This aspect is directly faced by online platforms through the voluntary establishment and management of a rating mechanism, according to which all users are publicly evaluated while those evaluations are available to the whole community of their peers. An example may clarify this assumption. A Dutch qualified lawyer, a Dutch national, and Chinese native speaker offers, through an online platform, one hour of legal translation from / into Chinese in exchange for ten hours of household chores. Is this person acting in his professional capacity or not? Irrespective of the answer, how can the counterparty be aware of this? In other words, given the lack of a compulsory obligation to disclose personal data, the only actor entitled and perhaps interested in making this transaction as fruitful and smooth as possible is the online platform. This, in turn, gives rise to the question of dispute resolution and the intermediary role an online platform carries out.[26]

The Communication highlights other possible problems, namely, labour relations and income taxation. Briefly, is an Uber driver an Uber employee or

25 Directive 2005/29/EC of the European Parliament and of the Council of 11 May 2005 Concerning Unfair Business-to-Consumer Commercial Practices in the Internal Market and Amending Council Directive 84/450/EEC, Directives 97/7/EC, 98/27/EC and 2002/65/EC of the European Parliament and of the Council and Regulation 2006/2004 of the European Parliament and of the Council (Unfair Commercial Practices Directive), [2005] OJ L 149/22. On the development of EU consumer protection see S. Weatherill, 'Consumer Policy', in P. Craig and G. De Burca (eds), *The Evolution of EU Law*, (2nd ed., Oxford University Press, 2011), 837-868.

26 J. Hörnle, 'Encouraging Online Alternative Dispute Resolution (ADR) in the EU and Beyond', (2013) 38 European Law Review (1), 187-208.

is (s)he self-employed?[27] Regarding income, it is obvious that people engaged as collaborative economy operators obtain an economic benefit from sharing an asset, be it a car or a bedroom; yet, it is less obvious how to determine the applicable taxation regime.[28]

These problems have all been acknowledged but not tackled at the EU level, the Commission seemingly devolving them to national legislatures. By contrast, scholars have engaged in a thorough analysis of the Communication. While some have highlighted its too 'collaborative economy friendly' character, hence stressing the concrete risk of self-regulation and advocating, in certain limited cases, the extension of B2C guarantees to a C2C transaction;[29] others have welcomed the fact that the Communication supported the idea of a horizontal approach to collaborative economy.[30]

The sharing economy has to date emerged as a new phenomenon the boundaries of which are potentially countless and the societal, political, and legal implications of which need to be correctly balanced. I will now turn the attention to the two *Uber* cases, to date still pending, in order to understand the current judicial debate and examine whether there might be some hints for a potential regulatory solution.

2.1. The Uberisation of Collaborative Economy: The Two Opinions of Advocate General Szpunar

The so-called *Uberisation*[31] of the collaborative economy has cannibalised each and every possible debate,[32] at the same time generating hatred and

27 A. Aloisi, 'Il lavoro "a chiamata" e le piattaforme online della collaborative economy: nozioni e tipi legali in cerca di tutele', (2016) Labour e Law Issues 19; W.P. De Groen and I. Maselli, 'The Impact of the Collaborative Economy on the Labour Market', (2016) CEPS Special Report 1; European Parliament, Employment and Social Affairs, The Situation of Workers in the Collaborative Economy, (October 2016), PE587.316.; S. Nerinckx, 'The "Uberization" of the Labour Market: Some Thoughts from an Employment Law Perspective on the Collaborative Economy', (2016), ERA Forum, 245-265.

28 See Section 3 of this Chapter.

29 C. Cauffman, 'The Commission's European Agenda for the Collaborative Economy – (Too) Platform and Service Provider Friendly?', (2016) 5 Journal of European Consumer and Market Law (6), 235, 243.

30 G. Smorto, note 16.

31 This expression can be tracked back to the Articles 'There's an Uber for Everything Now', *Wall Street Journal*, available at: www.wsj.com/Articles/theres-an-uber-for-everything-now-1430845789, and 'Uber but for Everything', *NPR*, available at: www.wbur.org/onpoint/2015/06/01/uber-for-everything-on-demand-economy (both last accessed: 3 October 2017).

32 D. Geradin, 'Uber and the Rule of Law: Should Spontaneous Liberalization Be Applauded or Criticized?', (2015) Competition Policy International, George Mason Law & Economics Research Paper No. 15-53; E. Mostacci and A. Somma, note 11, 5; G. Smorto, 'Verso la disciplina giuridica della sharing economy', (2015) 16 Mercato Concorrenza Regole (2), 245; K.M. Wyman, 'Taxi Regulation in the Age of Uber', (2017) 2 New York University Journal of Legislation and Public Policy (1), 1.

enthusiasm amongst people. It is therefore indicative that AG Szpunar opens his Opinion by stating that the *Elite Taxi* case "presents the Court with a highly politicised issue that has received a great deal of media attention".[33] The *Elite Taxi* and *Uber France* cases pending before the Court present more similarities than differences, therefore they will be analysed together and in chronological order.

Elite Taxi arose from a referral made by a Spanish court asking the Court to ascertain, basically, whether the services provided by Uber fall within the scope of application of the freedom to provide services, whether they should be caught by the Services Directive,[34] or the E-Commerce Directive or, alternatively, whether they have to be considered as mere transport services. In essence, is Uber a collaborative economy activity, whereby the matching of demand and supply is carried out through and in an online platform or is Uber merely a taxi undertaking?

The AG commences his Opinion interpreting the Services and the E-Commerce Directives and holding that they both exclude transport services from their scope of application. As for the latter, making reference to Directive 98/34 (hereinafter the Technical Standard Directive),[35] the AG states that Uber may likely offer a service at a distance, by electronic means, and at the individual request of a recipient of services. Nonetheless, he points out that in the case of composite services, i.e. those composed by an electronic and a non-electronic component, one should evaluate the predominant element, be it the online service itself or the transportation one. Therefore, "what is Uber? Is it a transport undertaking, a taxi business to be blunt? Or is it solely an electronic platform enabling users to locate, book, and pay for a transport service provided by someone else?"[36]

After a description of Uber's functioning, the AG concludes that it is "a traditional transport service"[37] while the very fact that it falls within the broader notion of the collaborative economy is "irrelevant".[38] To reinforce this statement, the AG engages in a detailed analysis of the rules behind Uber: many drivers work for Uber as their main activity; Uber sets prices and exerts an appreciable degree of control over their itineraries pushing them to the zones where a higher number

33 AG Szpunar's Opinion, note 14, para 1.

34 Directive 2006/123/EC of the European Parliament and of the Council of 12 December 2006 on Services in the Internal Market (Services Directive), [2006] OJ L 376/36.

35 Directive 98/34/EC of the European Parliament and of the Council of 22 June 1998 Laying Down a Procedure for the Provision of Information in the Field of Technical Standards and Regulations, [1998] OJ L 204/37.

36 AG Szpunar's Opinion, note 14, para 41.

37 Ibid, para 42.

38 Ibid.

of customers could be located (e.g. urban centres, railway stations, malls, etc.). Despite this capacity of pervasive control, the AG refrains from considering that between drivers and Uber there is an employment relation. In light of these evaluations, Uber is then to be considered as a pure transport service, therefore, excluded from the scope of application of the Services Directive as stipulated by its Article 2(2)(d) and consequently falling within Title VI of the Treaty.

In a similar vein, in *Uber France* AG Szpunar renders his Opinion irrespective of the classification of Uber as a collaborative economy platform.[39] The issue at stake was a provision of the French Transport Code according to which the organisation of a system for putting customers in touch with persons carrying out transport activities where such persons are neither road transport undertakings nor taxi drivers is punishable by a two-year term of imprisonment and a fine of EUR 300.000. Uber France argued that this norm amounts to a technical regulation, which should be notified to the Commission, according to the Technical Standard Directive. Recalling his analysis in *Elite Taxi*, the AG concludes that since Uber offers a traditional transport service the Technical Standard Directive is not applicable. Therefore, France is not obliged to notify the Commission of any technical regulation regarding transport activities.

The implications of AG Szpunar's Opinions can be extremely far reaching, as correctly pointed out in the first comments on the *Elite Taxi* case.[40] Apart from the systemic consequences regarding the scope of application of the E-Commerce, the Technical Standard and the Services Directives, what is interesting for the purposes of potential regulatory intervention is the classification of Uber as a transportation service. Pending the judgment of the Court and considering that, in essence, the assimilation of Uber to a transportation service has been made on the assumption that the underlying service, e.g. going from A to B in an urban space, is predominant and cannot exist without an online platform, it might be safe to conclude that every collaborative economy activity cannot be severed from the platform itself. However, let us engage in a theoretical exercise assuming litigation regarding Airbnb: is Airbnb to be considered as a tourism

39 AG Szpunar's Opinion delivered on 4 July 2017, case C-320/16 *Criminal proceedings against Uber France SAS* ECLI:ECLI:EU:C:2017:511, para 14.

40 D. Geradin, 'Online Intermediation Platforms and Free Trade Principles – Some Reflections on the Uber Preliminary Ruling Case', in A. Ortiz (ed), *Competition Policy International*, (2017), 119-133; A. Looijestijn-Clearie, 'It Looks Like a Duck, Walks Like a Duck, Quacks Like a Duck. But Is It a Taxi? A Commentary on the Opinion of Advocate General Szpunar in Case C-434/15 – Asociación Profesional Elite Taxi v Uber Systems Spain SL', (2017) Radboud Economic Law Blog, available at: www.ru.nl/law/research/radboud-economic-law-conference/radboud-economic-law-blog/2017/looks-like-duck-walks-like-duck-quacks-like-duck/; L. Woods, 'Uber: A Taxi Service or an App? Analysis of an ECJ Advocate-General's View', EU Law Analysis, available at: http://eulawanalysis.blogspot.it/2017/05/uber-taxi-service-or-app-analysis-of.html (both last accessed: 3 October 2017).

activity, solely because users go from A to B and stay overnight paying a fixed amount of money? And then, what about other examples, such as Homeaway, whereby users simply swap their villas, without any money exchange?

A full endorsement of the two AG's Opinions would prevent EU regulatory intervention based on the completion of the Internal Market. Indeed, such intervention would not benefit from a catch-all legal basis such as Article 114 TFEU, ideally coupled with Article 169 TFEU on consumer protection, but would indeed respond to the logic of transport (Article 58(1) and Title VI TFEU) and tourism (Article 195 TFEU). This last hypothesis would imply even more uncertainties given that in the latter sector the EU is only competent to support, coordinate, or supplement Member States' actions (Article 6(d) TFEU) while in the former the EU enjoys a shared competence (Article 4(2)(g) TFEU). Not to mention that, following this strategy, it would be ultimately impossible to harmonise collaborative economy activities since each of them holds their own peculiarity according to the predominance of the underlying service.[41]

It will be up to the Court to confirm or disregard the AG Opinions, but at this stage it would be difficult to imagine a third option. It is in any way clear that in these presumably ground-breaking judgments there will be more hints on potential regulation of the collaborative economy, either at a general or sectoral level.

3. The Italian Sharing Economy Act

Italy has been keen on intervening in the sharing economy since its inception. In early 2016 the Parliamentary Committees on Transport and Productive Activities issued a legislative proposal (hereinafter the Proposal) aimed at regulating online platforms and boosting the collaborative economy.[42] The Proposal has been supported by a number of different political parties; unfortunately, for some other political reasons, it has not reached yet the stage of discussion in both Chambers, thus up to now, the Proposal is still frozen, but untouched. There are no available data to foresee a scheduled date for discussion. Nonetheless, its assessment is useful to grasp the main critique behind regulatory intervention in the collaborative economy sector, thus understanding whether this national experience could be transplanted to the EU level.

41 See Section 4 of this Chapter.

42 Legislative Proposal 3564/2016, Disciplina delle piattaforme digitali per la condivisione di beni e servizi e disposizioni per la promozione dell'economia della condivisione (*Discipline of digital platforms for sharing goods and services and provisions to boost the sharing economy* [author's translation]), (27 January 2016), available in Italian at: www.camera.it/leg17/126?tab=2&leg=17&idDocumento=3564&sede=&tipo (last accessed: 3 October 2017).

The recitals of the Proposal explain why regulatory intervention is needed in Italy. In particular, it is acknowledged that the collaborative economy is booming in a number of different sectors and this could lead to normative discrepancies. Moreover, anticipating the observations contained in the Communication, one of the priorities is to set a definitive framework for workers, since their treatment, and therefore their rights, remain unclear. Particular attention is then given to transparency and taxation. In particular, considering the changes the collaborative economy is bringing, it cannot be halted but instead it needs to be governed through a horizontal act.

Considering the scope of this Chapter, I will focus solely on some specific aspects that might play a key role in persuading the Commission to propose a legislative act. When it comes to definitions, the Proposal clearly admits that the collaborative economy is a business model, thereby converging with the Communication. However, it goes further, since Article 1 states that goods exchanged through online platforms still belong to the users, and that between the former and the latter there is no employment relationship. Furthermore, there is a clearer definition of the subjects potentially involved in a transaction (*gestore*, *utente operatore*, *utente fruitore*), thereby distinguishing between the platform manager, the user-operator, and the end-user / consumer (Article 2). Again, considering the terminological difficulties and the fact that an EU act is translated into all the official languages, this linguistic choice is to be appreciated for its clarity.

Article 4 is perhaps the most important and controversial provision, having an impact on any potential regulatory intervention, either at the EU or at the national level. Indeed, each and every collaborative economy manager will be required to submit a company policy statement (*documento di politica aziendale*) to the Italian Antitrust Authority for approval. This condition seems to be a breach of the freedom of establishment and the freedom to provide services since it clearly sets out a market access requirement.[43] Despite the fact that this clause would operate in a non-discriminatory way, the reaction, on the one hand, of those platforms already registered in another Member State which should be able to penetrate the Italian market on the basis of the principle of mutual recognition, remains to be seen; on the other hand, whether this requirement is justified and proportionate to the goal to be achieved which, in turn, seems linked to consumer protection and tax collection can be questioned. Now, the Treaty provides for a high level of consumer protection

43 J. Snell, 'The Notion of Market Access: A Concept or a Slogan?', (2010) 47 Common Market Law Review (2), 437.

(Articles 12 and 169 TFEU) and the jurisprudence of the Court has recognised consumer protection as an overriding reason of general interest able to restrict Internal Market freedoms.[44] However, the problem remains to the extent that, sooner or later, this provision may attract the attention of operators, leading to litigation and perhaps a referral to the Court, or the Commission, through an infringement procedure. In particular, such a norm could be even struck down by the Court pursuant to the logic of negative integration.[45]

The company policy statement will regulate contractual conditions between a platform and a user (Article 4(2))[46] and, in particular, cannot contain, amongst others, the following clauses: price fixing, exclusion of operators on an arbitrary basis and prohibition of negative comments (Article 4(2)(c), (d) and (h)). Those three conditions, in essence, are the three most important aspects to be taken into account should the Commission propose a legislative act. The first recalls the Opinion of AG Szpunar in *Elite Taxi*. Indeed, should Uber wish to register its activity in Italy, the registration would have been denied due to the fact that Uber is able to impose its own fares on drivers and customers. In other words, Uber would not have been treated as a collaborative economy platform. This is true irrespective of the motive, profit or not-for profit, leading Uber drivers, and irrespective of the lack of a labour relation. Second, online platforms cannot exclude operators with no reason to the extent that they are responsible for their fair treatment as if they were in a market place. Third, the fact that reviews will always take place addresses the problem of information asymmetry in an online environment, hence achieving a joint goal. Beforehand, end users will know who their counterparty is; then, operators will be rated according to their performance, thus platforms will directly eliminate those persons whose performances are negative or rated negatively.

It is noteworthy to point out that this is an indirect consequence of the prohibition contained in Article 4, but entails an appreciable degree of consumer protection in the perhaps least intrusive way. Indeed, the provision is framed in negative terms so that online platforms are in any case free not to establish a review system at all. Eventually, it is an empirical observation that all collaborative economy platforms have set up their own review and rating system.

44 See case C-210/96 *Gut Springenheide GmbH e Rudolf Tusky contro Oberkreisdirektor des Kreises Steinfurt - Amt für Lebensmittelüberwachung* [1998] ECLI:EU:C:1998:369. In general, see H. Unberath and A. Johnston, 'The Double Headed Approach of the ECJ Concerning Consumer Protection', (2007) 44 Common Market Law Review (5), 1237.

45 See F. Scharpf, *Governing in Europe. Effective and Democratic?*, (Oxford University Press, 1999), 70, who argues that "[…] the Commission and the Court of Justice continuously expand[ed] the legal reach of negative integration without recourse to political legitimation".

46 G. Smorto, 'I contratti della sharing economy', (2015) Il Foro Italiano, 221.

As far as fiscal aspects are concerned, the Proposal takes a step forward introducing two different thresholds. Article 5 stipulates that income below EUR 10.000 will be deemed as 'collaborative economy income' and therefore taxed at a 10% rate. By contrast, amounts above that threshold will be added to the general income an individual possesses, and treated accordingly. This division does not say much about the motive of a collaborative economy operator but is nonetheless useful to combat tax evasion, one of the main concerns of the Italian legislator. However, considering that to correctly tax collaborative economy income the platform will act as withholding agent, Article 5(2) provides for the obligation to set up a permanent branch in Italy. This requirement could, in principle, run counter to the freedom to provide services, especially if platforms are already legally established in another Member State, as the Court pointed out in its early case law[47] and is subsequently specified in the Services Directive.[48] Yet, this blatant breach could be justified, should Italy be able to demonstrate, in a hypothetical judgment before the Court as a result of an infringement procedure or as the outcome of a preliminary ruling, that the measure at stake is proportionate and necessary to attain the objective of combating tax evasion.[49]

The Proposal reveals its potential usefulness as a possible benchmark for EU intervention to the extent that it correctly identifies and solves some of the major problems affecting the regulation of the collaborative economy. In particular, the clarity of the distinction amongst the different categories of individuals and legal persons involved is to be appreciated to the extent that it paves the way to enhance trust in online environments and through online transactions. It is then rather innovative that the control over operations carried out by collaborative economy operators has been conferred upon the national Antitrust Authority

47 See case C-76/90 *Manfred Säger v Dennemeyer & Co. Ltd.* [1991] ECLI:EU:C:1991:331 and, in particular, case C-101/94 *Commission of the European Communities v Italian Republic* [1996] ECLI:ECLI:EU:C:1996:221; case C-439/99 *Commission of the European Communities v Italian Republic* [2002] ECLI:EU:C:2002:14; case C-189/03 *Commission of the European Communities v Kingdom of the Netherlands* [2004] ECLI:EU:C:2004:597. See also C. Barnard, *The Substantive Law of the EU. The Four Freedoms,* (5th ed., Oxford University Press, 2016), 386-387, 396 and 411.

48 Services Directive, note 34, Articles 4(7), 14(3), 16(2)(a). See C. Barnard, note 47, 428-446 and C. Barnard, 'Unravelling the Services Directive', (2008) 45 Common Market Law Review (3), 323.

49 See case C-204/90 *Hanns-Martin Bachmann v Belgian State* [1992] ECLI:EU:C:1992:408; case C-55/98 *Skatteministeriet v Bent Vestergaard* [1999], ECLI:EU:C:1999:533; case C-433/04 *Commission of the European Communities v Kingdom of Belgium* [2006] ECLI:EU:C:2006:702; case C-290/04 *FKP Scorpio Konzertproduktionen GmbH v Finanzamt Hamburg-Eimsbüttel* [2006] ECLI:EU:C:2006:630. C. Barnard, note 48, 482-488; A. Cordewener, G. Kofler and S. van Thiel, 'The Clash between European Freedoms and National Direct Tax Law: Public Interest Defences Available to the Member States', (2009) 46 Common Market Law Review (6), 1951; W. Haslehner, '"Consistency" and Fundamental Freedoms: The Case of Direct Taxation', (2013) 50 Common Market Law Review (3), 737.

so that also the correct application of domestic and European competition law will be ensured.

As anticipated, the Proposal has not yet been scheduled for discussion in the Chamber of Deputies, hence, at this stage, it is hard to foresee its political fate. Notwithstanding that, this instrument provides for appreciable and creative solutions to regulate the collaborative economy starting from the assumption that that is a business model, consumer protection is ensured, and tax evasion must be combated. In essence, despite the critique highlighted concerning an alleged breach of EU law, the structure of the act, its content and the envisaged solutions might well constitute a model for perspective EU intervention.

4. Potential EU Legislative Intervention

The fact that the Communication has been inserted into the wider goal of the completion of the EU Digital Single Market is an indicator of how the collaborative economy's characteristics are disruptive and difficult to encapsulate under the common understanding of the EU Internal Market framework. One may also speculate on the fact that exactly for this reason the Commission has not yet decided to make a legislative proposal.

In light of the current state of affairs, this Section aims to pave the way, from a theoretical point of view, for possible EU regulatory intervention.[50] At the time of writing this Chapter, the judgments of *Elite Taxi* and *Uber France* are still pending, hence it will be very likely that in light of the decisions of the Court some of the proposals hereby put forward will need to be revised. However, this theoretical exercise takes stock of what AG Szpunar argued, i.e. Uber is cannibalising the debate, while there are many other instances deserving the same attention.[51]

50 In a similar vein, B.G. Edelman and D. Geradin, 'Efficiencies and Regulatory Shortcuts: How Should We Regulate Companies Like Airbnb and Uber?', (2015) 19 Stanford Technology Law Review (2), 293.

51 It should also be noted that the Court of Justice has been called upon to rule on several and interconnected aspects related to taxis. See case C-253/16 *Flibtravel International SA and Leonard Travel International SA v AAL Renting SA and Others* [2017] ECLI:EU:C:2017:211; case C-171/15 *Connexxion Taxi Services BV v Staat der Nederlanden (Ministerie van Volksgezondheid, Welzijn en Sport) and Others* [2016] ECLI:EU:C:2016:948; case C-50/14 *Consorzio Artigiano Servizio Taxi e Autonoleggio (CASTA) and Others v Azienda sanitaria locale di Ciriè, Chivasso e Ivrea (ASL TO4) and Regione Piemonte* [2016] ECLI:EU:C:2016:56; case C-419/12 *Crono Service scarl and Others and Anitrav - Associazione Nazionale Imprese Trasporto Viaggiatori v Roma Capitale and Regione Lazio* [2014] ECLI:EU:C:2014:81; case C-338/09 *Yellow Cab Verkehrsbetriebs GmbH v Landeshauptmann von Wien* [2010] ECLI:EU:C:2010:814; case C-168/14 *Grupo Itevelesa SL and Others v Oca Inspección Técnica de Vehículos SA and Generalidad de Cataluña* [2015] ECLI:EU:C:2015:685.

It is self-evident that the collaborative economy belongs to the broader framework of the EU Internal Market,[52] therefore, it should be treated accordingly. To begin with, the Treaty of Lisbon introduced Article 12 TFEU, devoted to guarantee consumer protection. The European Union enjoys a shared competence in the Internal Market (Article 4(2)(a) TFEU). Moreover, since at least one of the most pressing needs is represented by consumer protection, it would be ideally appropriate to link potential regulatory intervention to Article 4(2)(f) TFEU.[53] This brings me to the choice of a legal basis, to be identified in Article 114(3) TFEU which also guarantees consumer protection. A regulatory act should also take in due account Article 169 TFEU as well as Article 38 of the Charter.[54] Nonetheless, it must be stressed again that, should the Court follow AG Szpunar's Opinion, thereby endorsing an approach directed at considering the primary role played by the underlying service in a sharing economy transaction, it would be almost impossible to have a horizontal act based on Article 114(3) TFEU, because each activity will be treated as belonging to a specific sector (transport, tourism, etc.). It would also be difficult to envisage amendments of existing legal acts to the extent that it would be too burdensome to proceed to such a recast operation, multiplied for the many different areas the underlining service of a sharing economy transaction could cover. In other words, while the Court's judgments can very well be considered the first milestones on the regulation of the collaborative economy, they risk leaving things as they are. This, in turn, would have the side-effect of increasing the level of uncertainty for both operators and consumers, hence, essentially affecting the smooth development of the collaborative economy in the EU Internal Market.

Once the issues of competence and legal basis are positively solved, one should investigate whether such regulatory intervention complies with the principles of subsidiarity and proportionality. Given the scale of the phenomenon, the amount of economic[55] and human resources[56] involved, the possibility for job opportunities, the rapid growth, and the inherent cross-border element, it seems safe to say that the principle of subsidiarity could be plainly respected.

52 K. Mortelmans, 'The Common Market, the Internal Market and the Single Market: What's in a Market', (1998) 35 Common Market Law Review (1), 101.

53 V. Michel, 'Les objectifs à caractère transversale', in E. Neframi (ed), *Objectifs et compétences dans l'Union européenne*, (Bruylant, 2013), 177.

54 S. Weatherill, 'Article 38 – Consumer Protection', in S. Peers, T. Hervey, J. Kenner and A. Ward (eds), *The EU Charter of Fundamental Rights. A Commentary,* (Hart Publishing, 2014), 1005.

55 G. Petropoulos, 'An Economic Review of the Collaborative Economy. In-Depth Analysis for the IMCO Committee', (December 2016), IP/A/ IMCO/ 2016-11, PE 595.358; D. Scaraboto, 'Selling, Sharing and Everything in Between: The Hybrid Economies of Collaborative Networks', (2015) 42 Journal of Consumer Research (1), 152.

56 M. Zuleta Ferrari, 'Beyond Uncertainties in the Sharing Economy: Opportunities for Social Capitals', (2016) 7 European Journal of Risk Regulation (4), 664.

Regarding the principle of proportionality, in classical terms, and considering that some Member States have already started to envisage the idea of regulating the collaborative economy, a directive would be the best instrument. Unfortunately, there are currently no precise data and it would be beneficial to have, for instance, an impact assessment from the Commission.[57] Moreover, given that the collaborative economy is posing new challenges especially at the domestic level, perhaps national parliaments will have a key role in verifying whether the principle of subsidiarity has been respected. In other words, following a rather classical approach, the EU should adopt a legal act aimed at harmonising a significant part of the Internal Market, which appears to be still fragmented.

At this stage of the development of EU law, it seems safe to assume that such regulatory intervention, tentatively considered as 'preventive harmonisation',[58] would be permissible. Indeed, the current state of affairs at national level does not show the willingness of Member States' law-makers to enact legislation on the collaborative economy, therefore the EU would be able to pre-empt them by adopting a legal act in an area of shared competences.[59] It then becomes a political issue, whereby the EU legislature will be entrusted with the choice between minimum and maximum harmonisation.[60] Nonetheless, as demonstrated in this Chapter, it seems that all the legal and political conditions regarding EU competences, as well as the principles of subsidiarity and proportionality are met, hence a challenge to a collaborative economy directive, pursuant to Article 263 TFEU by the Member States outvoted in the Council, or even other interested parties, could be ruled out. However, should such a

57 See also Commission, Staff Working Document Accompanying the Communication, SWD/2016/184 final, 44-45.

58 See S. Weatherill, *EU Consumer Law and Policy,* (2nd ed., Edward Elgar, 2012), 76: "[…] 'preventive harmonisation' is also possible: the EU may harmonise national laws where it is likely that obstacles to trade will emerge in the future". See also case C-58/08 *The Queen, on the application of Vodafone Ltd and Others v Secretary of State for Business, Enterprise and Regulatory Reform* [2010] ECLI:EU:C:2010:321.

59 Article 2 (2) TFEU. See P. Craig and G. De Burca, *EU Law. Text, Cases and Materials,* (6th ed., Oxford University Press, 2015), 84-85.

60 For a political, legal and judicial distinction between the consequences on market integration that minimum and maximum harmonisation bear, see S. Weatherill, *The Internal Market as Legal Concept,* (Oxford University Press, 2017), 219-222.

directive be challenged, the Court, taking stock of its rulings in the so-called tobacco saga,[61] could easily dismiss such an annulment procedure.

A look at other legal cultures would be useful to create common ground upon which a comprehensive collaborative economy act could be built. For instance, some principles have already been identified: a differentiated regulatory response, a correct information flow, political acceptance that the collaborative economy will not disappear, the creation of new markets and new market places, the establishment of new regulatory structures, a non-conventional and innovative response, an assessment of harmful effects and negative externalities, an inclusive approach of all parties involved in collaborative economy transactions.[62] Despite the fact that it is convenient to supplement a theoretical analysis of an EU collaborative economy act, it might seem that these ideas are better suited to fit a common law environment.[63]

Conversely, other reasons would militate against regulatory intervention. In particular, following AG Szpunar's Opinions, should the Court and, eventually the Commission, deem that the underlying service prevails over the information society one, there would be no need for harmonisation at all. This would entail a set of overlapping problems. In particular, it would exclude some collaborative economy activities, in this specific hypothesis, Uber, from the harmonisation process, and would open up the gate to a sort of sectoral harmonisation while, by contrast, I advocate in favour of a horizontal instrument. Another example would clarify this point. There are no cases on this, but let us assume a preliminary reference on Airbnb. Should the Court, hypothetically, follow AG Szpunar's classification, this dispute would be solved by holding that Airbnb represents the underlying service of a tourism activity which, in turn, is not encompassed amongst the EU shared competences, but is categorised as a competence to support, coordinate, or supplement the actions of the Member States (Article

61 The tobacco saga occupied the Court of Justice for almost two decades, regarding several challenges on several grounds to directive(s) aimed at harmonising more and more aspects of the tobacco market. Legal doctrine is so abundant that it is impossible to give a full account of all comments, therefore, for space constraints, solely the Court's ruling are reported here in chronological order: case C-376/98 *Federal Republic of Germany v European Parliament and Council of the European Union* [2000] ECLI:EU:C:2000:544; case C-491/01 *The Queen v Secretary of State for Health, ex parte British American Tobacco (Investments) Ltd and Imperial Tobacco Ltd* [2002] ECLI:EU:C:2002:741; case C-380/03 *Federal Republic of Germany v European Parliament and Council of the European Union* [2006] ECLI:EU:C:2006:772; case C-547/14 *Philip Morris Brands SARL and Others v Secretary of State for Health* [2016] ECLI:EU:C:2016:325; case C-358/14, *Republic of Poland v European Parliament and Council of the European Union* [2016] ECLI:EU:C:2016:323; case C-477/14, *Pillbox 38 (UK) Limited, trading as Totally Wicked v Secretary of State for Health* [2016] ECLI:EU:C:2016:324.

62 S.R. Miller, 'First Principles for Regulating the Sharing Economy', (2016) 53 Harvard Journal on Legislation, 147.

63 See E. Mostacci and A. Somma, note 11, 19-27 and 91-93.

6(d) TFEU). If this example is multiplied for the manifold expressions of the collaborative economy, it would be clear that adopting a horizontal act is simply utopia.

This analysis started from the assumption, inspired by two studies,[64] that regulating the collaborative economy is necessary in order to complete the Digital Single Market. However, what about the possibility to leave things as they are? This approach seems to be endorsed by the European Commission, waiting for Member State intervention, either in the form of a brand-new act, or through the adaptation of older rules, mostly belonging to the domain of contract law and law of obligations.[65]

As a final note, the need to regulate the collaborative economy seems to be justified if one looks at both the demand and supply side. Regarding the former, as the Communication also acknowledges, consumers will benefit from lower prices and wider opportunities.[66] Regarding the latter, regulatory intervention could prevent potential litigation and boost economic growth. Moreover, people appear more genuinely interested in using collaborative economy platforms as consumers rather than as service providers.[67] In essence, how many Uber drivers or Airbnb hosts would be willing to engage in a cross-border supply activity? Now, it is clear that, recalling the famous *Dassonville formula*, measures capable of hindering, directly or indirectly, actually or potentially, intra-EU trade should be removed. The lack of other data prevents us from assuming with a reasonable degree of certainty that the collaborative economy operators really need a legislative framework to conduct their business. Finally, and considering again the *Uberisation* of the collaborative economy, regulatory barriers are still in place because transport is a particularly sensitive sector, cutting across the Internal Market and services of general economic interests.

64 G.V. Arribas, B. Steible and A. De Bondt, 'Cost of Non-Europe in the Sharing Economy: Legal Aspects', (European Institute of Public Administration, February 2016); P. Goudin, 'The Cost of Non-Europe in the Sharing Economy. Economic, Social and Legal Challenges and Opportunities', (European Parliament Research Service, January 2016).

65 See A. De Franceschi, 'The Adequacy of Italian Law for the Platform Economy,' (2016) 5 Journal of European Consumer and Market Law (1), 56; I. Kull, 'The Adequacy of Existing Estonian Laws for the Platform Economy', (2016) 5 Journal of European Consumer and Market Law (1), 52; J. Pisulinski, 'Internet Platforms under Polish Law', 5 Journal of European Consumer and Market Law (1), 62; E. Terryn, 'The Sharing Economy in Belgium – A Case for Regulation?', (2016) 5 Journal of European Consumer and Market Law (1), 45. Beyond the scope of the analysis of the collaborative economy, but closely related to it, there is also the issue of regulation of the internet. See also A. Savin, *EU Internet Law,* (Edward Elgar, 2014), 1-28; G. Spindler, 'EU Internet Policy', in A. Savin and J. Trzaskowski (eds), *Research Handbook on EU Internet Law,* (Edward Elgar, 2014), 3-36.

66 Flash Eurobarometer 438. The use of collaborative platforms. June 2016.

67 Ibid, 7.

A well-structured EU directive on the collaborative economy should take into account the above-mentioned necessities, thereby balancing the interests of online platforms, service providers, consumers, and in some particular instances even local communities.[68] It will surely be a difficult exercise, but in the long run, it might have a beneficial effect for all actors involved.

5. Conclusion

The collaborative economy had, has, and will have a disruptive effect on the EU Internal Market dynamics. The unforeseeable challenges this new phenomenon poses are manifold and a comprehensive strategy is still lacking. At the EU level, the Commission clearly preferred a 'wait-and-see' approach,[69] while the European Parliament only recently intervened in the debate.[70] An interesting stance, quite surprisingly, has been proposed by the Committee of the Regions calling for the adoption of legislative measures.[71] Perhaps this is a consequence of the fact that local communities and municipalities more than central governments fear the progression of the collaborative economy in domains reserved to their autonomous normative powers. This proves true if, again, one considers that the cities more affected by collaborative economy are those where tourism is more booming while peripheral urban centres are almost untouched.

This Chapter acknowledges, on the one hand, the challenges the collaborative economy is posing and operators are facing; on the other hand, it argues for EU regulatory intervention aimed at ensuring, first of all, consumer protection, fair competition, and avoidance of tax evasion. However, there is a decisive factor to be taken into account, namely, time. According to recent data, the average duration of an ordinary legislative procedure concluded in first reading is 17 months while the duration, in the case of a Council second reading, is stretched

68 G. Doménech-Pascual, 'Sharing Economy and Regulatory Strategies Towards Legal Change', (2016) 7 European Journal of Risk Regulation (4), 717.

69 V. Hatzopoulos and S. Roma, note 4, 94.

70 See the two motions for a European Parliament Resolution on the Collaborative Economy, 3 February 2016, B8-0249/2016, (Rapporteurs: S. Monteal, F. Philippot) and 22 February 2017, B8-0175/2017, (Rapporteurs: J. Mélin, M. Troszczynski) and the Final European Parliament Resolution of 15 June 2017 on a European Agenda for the Collaborative Economy, 2017/2003(INI), (Rapporteur: Nicola Danti).

71 Opinion, Committee of the Regions, 3-4 December 2015, The Local and Regional Dimension of the Sharing Economy, COR-2015-02698-00-00-AC-TRA, (Rapporteur: B. Brighenti); Draft Opinion, Committee of the Regions, 28 September 2016, Collaborative Economy and Online Platform: A Shared View of Cities and Regions, COR-2016-04163-00-00-PA-TRA, (Rapporteur: B. Brighenti).

up to 33 months.[72] Considering the fast development of the collaborative economy, waiting that amount of time is simply unrealistic. Not to mention the fact that in three years the technological and social scenarios could dramatically change,[73] thereby leading to the adoption of a brand-new act which is already outdated. An interesting way forward to solve this conundrum would be a closer cooperation between the EU and national legislators, therefore stimulating a bottom-up approach, taking into account different necessities that the Commission should take stock of in its legislative proposal.

Certainly, the Proposal tailor-made suitable solutions for the peculiarities of the Italian legal order. For instance, it would be hard to maintain the EUR 10.000 threshold at the EU level. Perhaps a mixed system should be imagined to accommodate the countless activities embodied in a collaborative economy transaction: Airbnb hosts in Paris and Uber drivers in Brussels will have a high likelihood to earn more than their colleagues in peripheral cities. An additional solution worth exploring could hence be the combination of income and time. For instance, earning a fixed amount of money in a fixed number of days in a calendar year could be a stimulating and creative approach. This idea should then be linked to the rate and review mechanism of each online platform to the extent that those people, in their private or professional capacity, reaching those thresholds, should be considered collaborative economy professionals, and be subjected to other and different obligations compared to their peers renting a spare room in their spare time. Those additional obligations could be identified in a mixed liability regime,[74] to be shared with the online platform, and in the obligation to disclose the fact that they are acting in their collaborative economy professional capacity.

Despite the fact that it seems safe to conclude that the Commission will not be stepping in to regulate the collaborative economy, at least for the time being, sooner or later several problems will arise. As can be inferred from the *Uber France* preliminary referral, the level and variety of litigation could well increase. Refraining from intervening could respond to two distinct logics: first, to the fact that many aspects are correctly left to national legislations, such as the

72 See https://epthinktank.eu/2014/11/26/european-parliament-facts-and-figures/ep-facts-and-figures-fig-19/ (last accessed: 3 October 2017).

73 G. Smorto, 'Economia della condivisione e antropologia dello scambio', (2017) 18 Diritto pubblico comparato ed europeo (1), 119; A. Sundararajan, 'The Collaborative Economy: Socioeconomic, Regulatory and Policy Issues. In-Depth Analysis for the IMCO Committee', (2017), I IP/A/IMCO/2016-12, PE 595.360.

74 D. Bercke, 'Products Liability in the Sharing Economy', (2016) 33 Yale Journal on Regulation, 603; P. Van Eecke, 'Online Service Providers and Liability: A Plea for a Balanced Approach', (2011) 48 Common Market Law Review (5), 1455.

qualification of an employment relation or the ways to guarantee tax collection. Second, the difficulty of timely adopting a legal act which, by the date of its enactment and considering the speed of technological development, could very well be outdated, should be stressed.

Despite the fact that I argue in favour of legislative intervention, I acknowledge that this 'wait-and-see' approach is lawful and legitimate: the Commission enjoys the broadest discretion in deciding whether to act or not, and it is legitimately using it. However, the European Union is facing the risk of leaving unregulated such an important phenomenon: it is a risky political choice, having a regulatory cost of its own, and only in a time span of some years, we will know whether it paid off or not.[75]

75 V. Hatzopoulos and S. Roma, note 4, 126.

Chapter 9:

Towards a Data Sharing Economy: The Legal Framework for Access to Data

*Carsten Koenig**

1. Introduction

On 10 January 2017, the European Commission published the Communication titled 'Building a European Data Economy',[1] outlining, in the Commission's words, "policy and legal solutions to unleash Europe's data economy".[2] The Communication advances the Commission's Free Flow of Data Initiative and is a substantial element of the Digital Single Market Strategy, originally presented in May 2015[3] as one of ten priorities of the Juncker Commission.[4] It addresses contentious issues such as data localisation requirements, portability, interoperability and standards, data ownership, and data access. The objective is to lay the ground for future legislative proposals aiming to eliminate restrictions on the free movement of data that could otherwise constrain the future development of the European data economy.[5]

The value of the data economy in the European Union (hereinafter the EU) was estimated at EUR 272 billion in 2015, or 1.87 percent of the EU GDP.[6] It is predicted that, by 2020, these numbers could rise to EUR 643 billion and 3.17 percent, respectively, depending on the further development of the policy and legal framework for the data economy.[7] The business models of the data economy by definition rely on data as an input. So far, however, companies

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1 Commission, Communication, Building a European Data Economy, COM/2017/9 final.

2 Commission, Press Release, 'Commission Outlines Next Steps towards a European Data Economy', IP/17/5, 10 January 2017.

3 Commission, Communication, A Digital Single Market Strategy for Europe, COM/2015/192 final.

4 https://ec.europa.eu/commission/priorities_en (last accessed: 10 September 2017).

5 Commission, note 1, 3. See e.g. the Commission's Proposal for a Regulation on a Framework for the Free Flow of Non-Personal Data in the European Union, COM/2017/495 final.

6 Commission, note 1, 2.

7 Ibid.

holding large quantities of data tend to keep it to themselves,[8] either because they want to analyse and use their data exclusively, or because they simply shy away from the efforts of sharing. The Commission rightly identified this reluctance as a problem for the creation of data markets and, consequently, for the efficiency of the European data economy as a whole.[9]

In its Communication, the Commission discusses several options for the promotion of data sharing, such as: issuing non-binding guidance based on existing legislation; fostering the development of technical solutions; adopting default rules for contracts relating to data; allowing for mandatory access to public interest data; creating a *sui generis* right for data producers to use and licence their data ('data producer's right'); and allowing for sector-specific, mandatory access to data against remuneration.[10] The latter option is probably the most controversial from a legal point of view because it infringes upon a core principle of European private law – freedom of contract. As the following analysis will show, however, mandatory access rights are not uncommon in European economic law. Instead, they are well-established means of EU competition and regulatory law, employed to prevent undertakings from foreclosing secondary markets. The objective of this Chapter is to explore the conditions under which mandatory access rights are granted in EU law and to discuss whether these could serve as a model for data access rights. As will be seen, building on the experience of competition and regulatory law, and taking into account the pro- and anti-competitive effects of access requirements in conventional industries, can help to create an adequate legal framework for data access and sharing.

The Chapter proceeds as follows: Section 2 explores possible motives for seeking access to other firms' data and for refusing such access. It also introduces four case examples that serve as illustrations throughout the text. Section 3 discusses whether data access can successfully be claimed on the basis of EU competition law. In particular, it analyses case law and doctrine concerning 'refusals to deal', as well as their economic rationale. Section 4 then looks into the possibilities of basing data access claims upon the EU Database Directive or sector-specific rules. Section 5 explores how lessons learned from competition and regulatory law should influence the future legal framework for data access and sharing. Section 6 concludes.

8 Commission, note 1, 9; Commission, Staff Working Document on the Free Flow of Data and Emerging Issues of the European Data Economy, SWD/2017/2 final, 16.

9 Commission, note 1, 9.

10 Commission, note 1, 12-13.

2. Why Seek Access to Data and Why Refuse It?

As a general rule, companies tend to generate or collect by themselves the data they need. Take Google and Facebook for example, who offer a variety of internet services, mostly without monetary consideration, only to learn about their users' characteristics and preferences. They need this data because their primary source of income is online advertising, and personalised advertising is more effective and therefore sells at higher prices. But, there are also situations in which companies are unable or reluctant to generate or collect the necessary data on their own because of legal, economic, or practical reasons. The following four examples illustrate how such situations can look like:

- *Example A*: Company A wants to develop a search engine that is technologically more advanced than Google's. In order to optimize its algorithm, A requires huge amounts of user data. It requests Google to share its data, arguing that Google would otherwise have an unfair advantage on the market for web searches.[11]

- *Example B*: Company B wants to offer a public transportation app for smartphones and asks all public transport operators in Country B to provide schedules and real-time information. Individual operators offer transportation apps with information on their respective services, but aggregation tools are not yet available.

- *Example C*: Electricity network operators collect detailed weather data to predict the electricity production from renewable energy. Farmer C would like to access the data relevant to the location of her farm to figure out the perfect day for harvesting her crops. The local electricity network operator refuses.

- *Example D*: City D seeks to improve its traffic management by optimizing the operation of traffic lights. D therefore seeks to request real-time information about city traffic (volume, traffic jams, etc.) from Google and TomTom.

Examples A, C, and D concern non-rivalrous data that could, at least in theory, be reproduced by the data access petitioners themselves. User data, weather data, and traffic data are types of data that can be generated or collected at the source by everyone who is willing to take the effort. In contrast, example

11 Cf. C. Argenton and J. Prüfer, 'Search Engine Competition with Network Externalities', (2012) 8 Journal of Competition Law and Economics, 73, proposing to require search engines to share anonymized data on previous searches. See also Monopolkommission, Competition Policy: The Challenge of Digital Markets, (2015), paras 275-280, rejecting the idea of mandatory data sharing between search engines as too burdensome and disproportionate.

B concerns proprietary information that is generally not available to the data access petitioner other than by directly procuring it from the data producer. Such information is often protected by intellectual property rights (in particular copyrights, trade secrets, and *sui generis* database rights under the EU Directive on the Legal Protection of Databases),[12] and must therefore only be used with the rights holder's permission even if the rights holder has already published the information and thereby made it publicly available.[13]

Where legal and practical barriers do not exist, economic barriers are typically what prevent data access petitioners from generating or collecting data themselves. It may be feasible for the electricity network operator in example C to obtain sophisticated weather data in order to forecast the electricity production from renewable energy and be able to operate a stable and secure electricity network. But the same effort may not pay off for a single farmer who simply wants to raise her harvest. Similarly, collecting real-time traffic data is essential for companies, such as Google and TomTom, which offer traffic, navigation and mapping products, but may be too burdensome for a city administration that wants to solve a singular problem.

Considering the other side of the potential bargain, why would a company refuse sharing its data with other companies or public authorities? Anti-competitive motives may play a role where the data holder and the access petitioner are (potential) competitors who (seek to) do business on the same or closely connected product markets. Related problems will be further analysed below in Sections 3 and 4 of this Chapter. Even if competition is not an issue, as in examples C and D, a successful bargain may still not materialise due to high transaction costs. It could be too complicated and therefore prohibitively costly for the parties to agree on the exact contract terms, data formats, technical interfaces, etc. As a consequence, data may not be shared although it would be mutually beneficial in the absence of transaction costs. It is thus to be welcomed that the Commission seeks to reduce these costs by issuing guidance, promoting technical standardisation, and adopting standard contract terms.[14]

12 Directive 96/9/EC of the European Parliament and of the Council of 11 March 1996 on the Legal Protection of Databases, [1996] OJ L 77/20.

13 For recent case law interpreting the Database Directive see, most importantly, case C-490/14 *Verlag Esterbauer* [2015] ECLI:EU:C:2015:735; case C-30/14 *Ryanair* [2015] ECLI:EU:C:2015:10; case C-202/12 *Innoweb* [2013] ECLI:EU:C:2013:850; case C-173/11 *Football Dataco and Others* [2012] ECLI:ECLI:EU:C:2012:642; case C-138/11 *Compass Datenbank* [2012] ECLI:EU:C:2012:449; case C-545/07 *Apis-Hristovich* [2009] ECLI:EU:C:2009:132; case C-304/07 *Directmedia Publishing* [2008] ECLI:EU:C:2008:552; case C-203/02 *The British Horseracing Board and Others* [2004] ECLI:EU:C:2004:695.

14 Commission, note 1, 12-13.

3. Data Access Under EU Competition Law

It has been argued that competition law is an inadequate tool to deal with the sophisticated problems of data access and sharing.[15] It is claimed that competition law enforcement is too cumbersome and time-consuming to provide the quick and ready answers that are often needed where access to data is requested.[16] Furthermore, it is argued that competition law enforcers and courts are in a bad position to 'regulate' the specifics of access provision, such as setting reasonable terms and calculating appropriate compensation.[17] It is indeed likely that, with regard to data access and sharing, competition law will never be more than a means of last resort, although the possibility of expedited proceedings and plaintiff-friendly provisions of the EU Directive on Antitrust Damages Actions[18] might still give it some force.

The relevance of competition law doctrine to the issues discussed here does not follow from its practical relevance, though, but from the economic rationale underlying the case law. The CJEU's decisions concerning a 'duty to deal' precisely address one of the central questions in the context of data access and sharing: when is it justified from a consumer welfare perspective to force one party to share a certain asset with another party?

The CJEU had to approach this question in a number of cases, and in some of these, *Magill*,[19] *IMS Health*,[20] and *Microsoft*,[21] the asset concerned was information. The Court emphasized that, as a general rule, (intellectual) property rights, party autonomy and freedom of contract argue against a duty to deal even if an undertaking holds a dominant position on an upstream market. However, under 'exceptional circumstances', a refusal to deal can nevertheless constitute

15 D.D. Sokol and R. Comerford, 'Does Antitrust Have a Role to Play in Regulating Big Data?', in R.D. Blair and D.D. Sokol (eds), *The Cambridge Handbook of Antitrust, Intellectual Property, and High Tech,* (Cambridge University Press, 2017) 293, 311-12; J. Drexl, 'Designing Competitive Markets for Industrial Data – Between Propertisation and Access', (2016) Max Planck Institute for Innovation and Competition Research Paper No. 16-13, 43-44, 67 (November 2016); see, on the other hand, Z. Abrahamson, 'Essential Data', (2014) 124 Yale Law Journal, 867, 868, arguing that the US essential facilities doctrine should be revitalised with regard to data access claims to prevent firms with 'essential data' from free riding on rival's investments and maintaining monopolies by excluding competitors; Autorité de la concurrence & Bundeskartellamt, Competition Law and Data, (10 May 2016), 17-18.

16 Max Planck Institute for Innovation and Competition, *Data Ownership and Access to Data*, Position Statement on the Current European Debate, (16 August 2016), para 35.

17 D.D. Sokol and R. Comerford, note 15, 311-12; J. Drexl, note 15, 44.

18 Directive 2014/104/EU of the European Parliament and of the Council of 26 November 2014 on Certain Rules Governing Actions for Damages under National Law for Infringements of the Competition Law Provisions of the Member States and of the European Union, [2014] OJ L 349/1.

19 Case C-241/91 P *RTE and ITP v Commission (Magill)* [1995] ECLI:EU:C:1995:98.

20 Case C-418/01 *IMS Health* [2004] ECLI:EU:C:2004:257.

21 Case T-201/04 *Microsoft v Commission* [2007] ECLI:EU:T:2007:289.

abusive conduct in terms of Article 102 TFEU because it excludes access to a secondary market and therefore eliminates competition. In specifying these 'exceptional circumstances', the CJEU delimited a rather narrow framework.

3.1. Dominant Position

A refusal to supply access to data, like any other potentially anti-competitive practice, can only be abusive in terms of Article 102 TFEU if it is executed by one or more undertakings holding a dominant market position. The relevant product market need not be a specific 'data market', but can also be a related market such as the market for general internet searches, which, the European Commission says, is dominated by Google.[22] It is settled case law that the dominated market can be different from the market where the abusive behaviour occurs.[23] Dominance has been characterized by the CJEU and the Commission as an undertaking's power to behave to an appreciable extent independently of competitors, customers, and ultimately of consumers.[24] The possession of large quantities of data can contribute to a dominant position,[25] but, as a general rule, other relevant market conditions will also be taken into account.[26]

Already in *Magill*, however, the CJEU indicated that the relevant product market could be defined around the specific asset access to which is requested by the access petitioner. In that case, Magill TV Guide Ltd wanted to publish a comprehensive weekly television guide, but was prevented from doing so by the relevant TV stations which refused to grant licences for the publication of their respective weekly listings. The CJEU held the TV stations to be dominant because they were "the only source of such information" as requested by Magill and thus "[b]y force of circumstance" enjoyed "a *de facto* monopoly over

22 *Google Search - Shopping,* case COMP/39.740), Press Release IP/17/1784. The Commission found Google to have been dominant in the general internet search markets in all 31 EEA countries since 2008, except in the Czech Republic where Google was found to have been dominant only since 2011.

23 Joined cases 6/73 and 7/73 *Istituto Chemioterapico Italiano and Commercial Solvents v Commission* [1974] ECLI:EU:C:1974:18, para 22; case C-333/94 P *Tetra Pak v Commission* [1996] ECLI:EU:C:1996:436, para 31; A. Jones and B. Sufrin, *EU Competition Law,* (6th ed., Oxford University Press, 2016), 377-80.

24 Case 27/76 *United Brands v Commission* [1978] ECLI:EU:C:1978:22, para 65; Case 85/76 *Hoffmann-La Roche v Commission* [1979] ECLI:EU:C:1979:36, para 38; Commission, Guidance on the Commission's Enforcement Priorities in Applying Article 82 of the EC Treaty to Abusive Exclusionary Conduct by Dominant Undertakings (Guidance Paper), [2009] OJ C 45/7, para 10.

25 In Germany, this has recently been clarified through the 9th Amendment to the German Competition Act. A new subsection 18(3a) stipulates, *inter alia*, that "access to data relevant to competition" must be taken into account when assessing dominance, see C. Koenig, 'Digital Economy, Antitrust Damages, and More: The 9th Amendment to the German Competition Act', (2017) 1 European Competition and Regulatory Law Review, 261.

26 Commission, Guidance Paper, note 24, paras 12-18.

the information".[27] The CJEU did not find fault with defining a market for TV information even though the TV stations had never sold their listings before, and apparently had no intention to do so.

In *IMS Health*, the CJEU confirmed that "it is sufficient that a potential or even hypothetical market can be identified" and further stated that "[s]uch is the case where the products or services are indispensable in order to carry on a particular business".[28] The latter statement led to some confusion about the relationship of the dominance requirement, on the one hand, and the indispensable product or service requirement, on the other. This can be seen from the reference by the Oberster Gerichtshof (Austria) in *Compass-Datenbank*, in which the Austrian court asked the CJEU, *inter alia*, whether the principles laid down in *Magill* and *IMS Health* are also to be applied "if there is no 'upstream market' because the protected data are collected and stored [...] in the course of a public-authority activity".[29] Unfortunately, the CJEU did not answer this question because it had held earlier in the same decision that the relevant defendant did not even constitute an undertaking in terms of Article 102 TFEU.

Thus, the CJEU's statement in *IMS Health* that a potential or hypothetical market is sufficient is still good law. The Court had explicitly referred to the opinion of AG Tizzano, who had read the CJEU's decisions in *Magill* and *Bronner*[30] as stating that it is "sufficient that it is *possible to identify* a market in upstream inputs, even where the market is a 'potential' one only, in the sense that operating within it is a monopoly undertaking which decides not to market independently the inputs in question".[31] Thus, where 'inputs' cannot be substituted, the relevant product market may comprise only the asset to which access is requested (e.g. a certain data set), and the undertaking in control inevitably holds a dominant position. Understood this way, each data owner in examples A to D above, is dominant on the respective 'data resource market', even if that may only be a potential or even hypothetical market.

3.2. Duty to Share

Going back to its landmark decisions in *Commercial Solvents*[32] and *Volvo*,[33] the CJEU has held that a unilateral refusal to deal by a dominant undertaking may

27 Case C-241/91, note 19, para 47.

28 Case C-418/01, note 20, para 44.

29 Case C-138/11, note 13, para 33.

30 Case C-7/97 *Bronner* [1998] ECLI:EU:C:1998:569.

31 Opinion of AG Tizzano in case C-418/01 *IMS Health, note 20* para 57 (emphasis in original).

32 Joined Cases 6/73 and 7/73, note 23, para 25.

33 Case C-238/87 *Volvo v Veng* [1988] ECLI:EU:C:1988:477, para 9.

constitute an abuse in terms of Article 102 TFEU (only) under certain 'exceptional circumstances'. In *IMS Health*, the CJEU summarized these exceptional circumstances as they had been defined and re-defined in *Magill* and *Bronner*.[34] According to the CJEU's owns recapitulation of its earlier judgments, a refusal to deal by a dominant undertaking is unlawful (and a duty to deal / license / grant access is the obvious remedy) where three conditions are cumulatively met: (i) the dominant undertaking's refusal to deal is likely to exclude all competition from a secondary market because it concerns a product or service which is indispensable for carrying on business on that market, (ii) the refusal to deal prevents the emergence of a new product for which there is a potential consumer demand, and (iii) the refusal to deal is not justified by objective considerations.

3.2.1. Refusal Is Likely to Exclude Effective Competition

The first condition is the most characteristic of the doctrine discussed here. The refusal to deal must concern an indispensable product or service and, as a consequence, must be likely to exclude all competition from a secondary market. The indispensable product or service is often called an 'essential facility', but this is neither the term used by the courts nor particularly accurate, because the product or service need not be tangible, as the term 'facility' indicates, but can be anything that might be needed as an input factor. What matters in the end, is the exclusionary effect. The refusal to deal must prevent the petitioner from doing business on a secondary market, which is thereby deprived from effective competition.

Given this functional interpretation, data easily fits the CJEU's definition of a 'product or service'. The CJEU has already allowed access to copyrighted information (*Magill*),[35] a copyrighted database (*IMS Health*),[36] and potentially copyrighted software protocols (*Microsoft*).[37] It follows, from a simple *a fortiori* argument, that if undertakings can even be forced to share data protected by intellectual property rights, they can also be forced to share data that is not protected by law. It therefore does not matter for data access claims under EU competition law whether data will in the future be protected by some kind of ownership rights.

34 Case C-418/01, note 20, para 38.
35 Case C-241/91, note 19, para 7.
36 Case C-418/01, note 20, para 10.
37 Case T-201/04, note 21, paras 288-289. Neither the Commission, nor the GC established whether Microsoft's interoperability information was actually covered by a patent or by copyright.

It is sometimes argued that data is not 'indispensable' because it shares the characteristics of a public good, being non-excludable and non-rivalrous.[38] This is true for 'raw data' that can be collected by everyone from the public sphere, such as the weather and traffic data in examples C and D, above. Respective data sets can be duplicated and will therefore generally not meet the CJEU's 'indispensability' requirement. In *Bronner*, the CJEU clearly stated that it is not enough to argue that the petitioner cannot afford duplicating the requested product or service, but that, "at the very least", it would be necessary to establish that duplication is not economically viable even for an undertaking comparable to the defendant.[39] This proposition is remindful of the economic concept of a natural monopoly (i.e. an inevitable monopoly due to economies of scale) and basically means that claims of 'economic indispensability' will not be successful unless duplication was to result in social losses.

Data is, however, excludable where it is either protected by an intellectual property right (such as a copyright, trade secret, or *sui generis* database right under the EU Database Directive), or where the data owner withholds the data from the public sphere and may use technical means to frustrate unwanted access. Furthermore, the requested data can be so specific that duplication is not an option. Consider example B, above. In order to offer its public transportation app, company B needs access to the schedules and real-time information (such as cancellations and delays) of all public transport operators. The data cannot be duplicated in any sensible way. It may be published by the operators on their websites or through their own apps, but company B may be prohibited by the EU Database Directive from simply 'scraping' the data and feeding it into its own applications and databases.

In fact, cases like these, in which undertakings build business models around aggregating and analysing the 'data treasures' of others, are probably the most likely field of application for data access claims based on competition law. In the United States, the technology company PeopleBrowsr sued Twitter in 2012 in order to retain access to the unfiltered data stream created by Twitter's users (the 'Twitter firehose').[40] Twitter had granted this access before, but then announced shutting it down. PeopleBrowsr needed access to the data stream because it offered data analytics services specifically tailored to the data generated by Twitter users. PeopleBrowsr claimed, amongst others, that the shutdown of its

38 Cf. J. Drexl, note 15, 46-47; Autorité de la concurrence & Bundeskartellamt, note 15, 36-37; I. Graef, S.Y. Wahyuningtyas and P. Valcke, 'Assessing Data Access Issues in Online Platforms', (2015) 39 Telecommunications Policy, 375, 384.
39 Case C-7/97, note 30, paras 45-46.
40 *PeopleBrowsr v Twitter* [2012] WL 5945525 (Complaint; Superior Court of California).

access to the data stream would violate the antitrust laws.[41] The parties reached an out-of-court settlement in 2013.

Competition law could also present a solution for the infamous 'web scraping' cases, which have so far primarily been discussed on the basis of database law.[42] They concern metasearch engines, price comparison websites and similar businesses that rely on data collected from third-party sources. In *Innoweb*, the CJEU held that the operation of a dedicated metasearch engine "re-utilizes the whole or a substantial part of the contents of a database" and therefore generally violates Article 7 of the EU Database Directive.[43] Within the scope of the Directive, data aggregators thus need (implicit) consent by their sources in order to operate their businesses legally. However, where the data is indispensable for the product or service to be offered, competition law may render it unlawful to withhold that consent.[44]

3.2.2. Refusal Prevents the Emergence of a New Product

The second condition for a successful access claim based upon competition law is that the refusal to deal / license / grant access prevents the emergence of a new product for which there is a potential consumer demand. This requirement goes back as far as *Magill*,[45] but the exact reasoning behind it is not entirely clear.[46] The CJEU apparently follows a theory of consumer welfare and wants to ensure that successful access claims do not only lead to a redistribution of producer surpluses. However, although new products indeed often benefit consumers (as the first comprehensive weekly TV guide did when it was introduced), it is less clear that comparable benefits cannot be achieved by other means. In fact, it is

41 Ibid, paras 70-74, 78-80, 90, 155, 157.
42 See e.g. case C-30/14, note 13 and case C-202/12, note 13.
43 Case C-202/12, note 13, para 54.
44 In fact, this was held by the Tribunale di Milano in a case concerning Ryanair's refusal to consent to third-party access to its flight database by a price comparison website. See judgment of 4 June 2013, file no 7825/2013, available at: www.oppic.it/index.php?option=com_docman&task=doc_details&gid=494&Itemid=60 (last accessed: 10 September 2017).
45 Case C-241/91, note 19, para 54.
46 See R. O'Donoghue and J. Padilla, *The Law and Economics of Article 102 TFEU,* (2nd ed., Hart, 2013), 554-561, arguing in favour of a restrictive interpretation based upon economic reasoning.

reasonable to assume that significant product innovations or lower prices might benefit consumers to the same extent.[47]

Revisiting some of the previous examples, it is easy to see how a refusal to grant access to data can prevent the emergence of a new product. But for access to schedule and real-time information, company B cannot offer its public transportation app. By aggregating the relevant data of all public transport operators, the app meets a different consumer demand than the existing apps that cover only one operator each. In fact, example B is only a modern version of the *Magill* case. Just as the comprehensive weekly TV guide was a new product because it aggregated the TV listings of all stations, the app offered by company B is a new product because it aggregates the travel data of all transportation operators. Similar arguments can be made for other aggregators, such as metasearch engines and price comparison websites.

Because the reasoning behind the new product requirement is not entirely clear (is it only a proxy to consumer welfare or is there more to it?), it can be difficult to figure out whether a certain product innovation fulfils the requirement. If company A wants to offer a search engine that is 'technologically more advanced' than Google's, as was described in example A above, would this cause the emergence of a 'new product'? Or would a search engine still be a search engine, albeit somewhat enhanced? Given the CJEU's consumer welfare approach it would probably be decisive whether consumers consider the newly-developed product to meet a significantly different consumer demand[48] – in many cases, this may ultimately be a question of degree. This would be even more so under the GC's approach, which apparently only requires the competitor to deliver a product innovation that differs from the incumbent's product "with respect to parameters which consumers consider important".[49]

47 This was argued by the GC in *Microsoft*, case T-201/04, note 21, paras 643-659. See para 647: "The circumstance relating to the appearance of a new product, as envisaged in *Magill* and *IMS Health* [...] cannot be the only parameter which determines whether a refusal to license an intellectual property right is capable of causing prejudice to consumers within the meaning of Article 82(b) EC [now Article 102(b) TFEU]. As that provision states, such prejudice may arise where there is a limitation not only of the production or market, but also of technical development." Note that the GC here openly departs from ECJ precedents and that the ECJ has never had the chance to reply because Microsoft decided not to appeal the GC's decision.
48 R. O'Donoghue and J. Padilla, note 46, 560, submit that the product should be "a *new kind of product* in the sense that it creates a new type of market option that did not previously exist".
49 Case T-201/04, note 21, para 656. See also note 47.

3.2.3. Refusal Is Not Objectively Justified

The third and last condition for a successful access claim based upon competition law is that the refusal to deal / license / grant access is not justified by objective considerations. The purpose of this requirement is to distinguish anti-competitive strategies from lawful behaviour driven by other motives. In fact, it has been argued, primarily by scholars of the Chicago School, that anti-competitive explanations for refusals to deal are difficult to find. These scholars claim that there is only one monopoly profit to be had, and this profit can be fully captured through monopoly prices on the primary market, i.e. monopolistic access fees.[50] According to this theory, a monopolist cannot further increase its profits by monopolizing a secondary market.

Although the single monopoly profit theory remains influential, economists have now identified a number of situations, for which it can be shown that extending a monopoly to a secondary market can indeed be rational, anti-competitive behaviour. An illustrative example is a price regulation affecting the primary market (access fee regulation).[51] Due to the regulation, the monopolist will not be able to charge a monopoly price on the primary market and may therefore seek to obtain its monopoly profit on the secondary market, instead.

By requiring an objective justification, the CJEU puts the burden to demonstrate that the refusal is not anti-competitive on the defendant. Only if the defendant can show that there is a perfectly innocent explanation for the refusal, will it succeed in eliminating the suspicion of illicit behaviour. This will be easy in some cases, but difficult in others. In example A above, for instance, Google may simply justify the refusal to share its user data on the basis of privacy laws.[52] These require anyone seeking to process personal data to first obtain the consent of the 'data subject' whose data is to be processed.[53] In example B, on the other hand, there seems to be no plausible explanation for refusing access

50 P. Areeda and H. Hovenkamp, *Antitrust Law,* (4th ed., Vol. IIIB, Aspen Publishers, 2015), para 773c: "[…] the key point is that a monopolist cannot earn double profits by monopolizing a second, vertically related market."; R. Bork, *The Antitrust Paradox,* (1978), 229: "If the integrated firm has monopoly positions in both manufacturing and retailing, however the levels will not maximize independently."; R. Posner, 'Exclusionary Practices and the Antitrust Laws', (1974) University of Chicago Law Review, 506, 524.

51 Commission, Guidance Paper, note 24, para 88; S. Bishop and M. Walker, *The Economics of EC Competition Law: Concepts, Application and Measurement*, (3rd ed., Sweet & Maxwell, 2010), paras 6-124.

52 Cf., however, C. Argenton and J. Prüfer, note 11, 99-100, limiting their proposal to require search engines to share their data on previous searches to anonymize data on search sessions.

53 See e.g. Article 6(1) of Regulation 2016/679 of the European Parliament and of the Council of 27 April 2016 on the Protection of Natural Persons with Regard to the Processing of Personal Data and on the Free Movement of Such Data, and Repealing Directive 95/46/EC (General Data Protection Regulation), [2016] OJ L 119/1.

to the requested transportation data other than to restrain competition on the secondary market for public transportation apps.

In conclusion, where specific data is indispensable for operating a certain business, where this business yields a new product for which there is a potential consumer demand, and where there is no objective justification for the refusal to share, successful data access claims can be brought under EU competition law. On the other hand, where the data in question can easily be duplicated, where the access petitioner merely wants to offer the same, albeit slightly enhanced product, or where the refusal is justified by objective justifications such as data protection laws, competition law will not allow restraining the defendant's freedom of contract. Given that this framework is built upon a sophisticated theory of consumer welfare, it should be taken into account when discussing a new regulatory framework for data access and sharing.

4. Data Access under EU Regulatory Law

In addition to the general framework described by competition law, EU law also embodies a number of more specific rules concerning data access and sharing. Of universal interest is the EU Directive on Databases,[54] which has been mentioned several times by now. The Directive primarily seeks to protect data stored in databases against unsolicited exploitation by third-parties. However, as with other intellectual property rights, the database right is subject to limitations and exceptions, which allow for protected data to be used without a licence. In particular, Article 8(1) of the Directive stipulates that "[t]he maker of a database which is made available to the public in whatever manner may not prevent a lawful user of the database from extracting and or re-utilising insubstantial parts of the its contents, evaluated qualitatively and / or quantitatively, for any purposes whatsoever".[55] Thus, database makers are to a certain extent required by law to allow others to use the data stored in their databases. Yet, the case law on this limitation is rather restrictive. Notably, the CJEU has held in *Ryanair*[56] that the limitations and exceptions of the Database Directive do not apply to databases that meet the database definition in Article 1(2), but are neither protected by copyright nor by the *sui generis* database right stipulated in Article 7 of the Directive.

54 See note 12.

55 Article 8(2) specifies the "lawful use" by stipulating that a lawful user "may not perform acts which conflict with the normal exploitation of the database or unreasonably prejudice the legitimate interests of the maker".

56 Case C-30/14, note 13, paras 39, 45.

A data access and sharing regime that is apparently guided by the competition law rationale described in Section 3, above, can be found in the EU Regulation on Type Approval of Motor Vehicles.[57] Article 6(1) of the Regulation requires car manufacturers to provide unrestricted and standardised access to vehicle repair and maintenance information to independent operators, such as repairers and manufacturers of repair equipment, tools, or spare parts. The objective of this provision is to prevent car manufacturers from using their position on car markets to foreclose the secondary markets for car repairs and maintenance, as well as spare parts.[58] The Regulation stipulates the technical requirements of data sharing, such as the format in which the data must be provided, and, in Article 7(1), prohibits car manufacturers from charging higher than "reasonable and proportionate" access fees.

A rather sophisticated scheme for data access and sharing is also set up by the EU Directive on the Deployment of Intelligent Transport Systems (ITS)[59] and the associated implementing legislation. The Delegated Regulation on Real-Time Traffic Information Services,[60] for example, requires road authorities and road operators to make accessible their road and traffic data in standardised, machine-readable formats. In order to protect competition on markets for traffic, navigation, and mapping products, however, the Regulation does not generally oblige service provides (such as Google and TomTom) to share their data.[61] Instead, according to Article 6(3) of the Regulation, service providers are only required to provide, upon request by road authorities or road operators, data needed for optimising traffic management activities.

The examples show that competition concerns also play a role in specific regulatory regimes for data access and sharing. In fact, provisions such as Article 6(1) of the Type Approval Regulation address problems that could also be solved on the basis of competition law. Their objective is to open up secondary markets for third-party value creation. The main advantage compared to competition law is that regulatory frameworks can be more specific, for example with

57 Regulation 715/2007 of the European Parliament and of the Council of 20 June 2007 on Type Approval of Motor Vehicles with Respect to Emissions from Light Passenger and Commercial Vehicles (Euro 5 and Euro 6) and on Access to Vehicle Repair and Maintenance Information, [2007] OJ L 171/1.

58 Ibid, Recital 8.

59 Directive 2010/40/EU of the European Parliament and of the Council of 7 July 2010 on the Framework for the Deployment of Intelligent Transport Systems in the Field of Road Transport and for Interfaces with Other Modes of Transport, [2010] OJ L 207/1.

60 Commission Delegated Regulation 2015/962 of 18 December 2014 Supplementing Directive 2010/40/EU of the European Parliament and of the Council with Regard to the Provision of EU-Wide Real-Time Traffic Information Services, [2014] OJ L 157/21.

61 Commission, Staff Working Document, The Provision of EU-Wide Real-Time Traffic Information Services, SWD/2014/356 final, 19.

regard to technical standards and remuneration, and thereby avoid some of the previously described practical challenges of enforcing the relevant competition law doctrines.

5. A New Legal Regime for Data Access and Sharing?

In its Communication of January 2017, the Commission announced to engage in a dialogue to explore "a possible future EU framework for data access".[62] Objectives are, *inter alia*, to "improve access to anonymous, machine-generated data" and incentivise the sharing of such data, but also "protect investments and assets" to avoid disincentives for innovation.[63] This describes the typical dilemma competition policy faces in the light of exclusivity rights. On the one hand, the prospect of being the only one who can market a certain product (presumably at a monopoly price) is a strong incentive for innovation and is therefore actively promoted by legislators through (intellectual) property rights. On the other hand, too much exclusivity can prevent follow-up competition and subsequent innovations on secondary markets.

It is impossible to assess and evaluate the respective welfare effects of data exclusivity, on the one hand, and mandatory data access and sharing, on the other hand, without considering specific circumstances such as the relevant primary and secondary markets, the potential for innovation, the availability of alternative data sources, the social value of the new product, etc. This is why the Commission seems to favour sector-specific solutions such as the framework created by the Type Approval Regulation with regard to car repair and maintenance data. It also means that it would be very difficult to universally define the boundaries of a 'data ownership right', as it is currently discussed, and its limitations and exceptions.

There are, however, situations in which the incentive effect of exclusivity is so negligible that data access and sharing can clearly be considered as welfare-promoting. A prime example is public sector information such as geo-spatial information and satellite data. Such data is generated or collected according to political preferences, not consumer preferences, and it is paid for by public

62 Commission, note 1, 11; see also Commission Staff Working Document, note 8, 30, and most recently, the Commission's Proposal for a Regulation on a Framework for the Free Flow of Non-Personal Data in the European Union, note 5.

63 Commission, note 1, 11.

budgets and ultimately taxpayers.[64] Thus, the prospect of being able to obtain a monopoly profit is not necessary in order to incentivise the accumulation of such data. It is therefore to be welcomed from an efficiency perspective if such data is shared with public and private entities on a transparent and non-discriminatory basis, as is the case for geo-spatial information under INSPIRE,[65] and for satellite data under COPERNICUS.[66]

Against this background, it is unsatisfying from an efficiency perspective that the CJEU has recently granted wide protection to geo-spatial information under the Database Directive. In *Verlag Esterbauer*,[67] the Court held that a topographic map created by a public land surveying office may constitute a protected database under the Directive, meaning that third-parties may be prohibited from extracting and re-utilising any substantial information. It is difficult to justify this protection with the Directive's objective to incentivise investments in modern information and processing systems[68] since the public office in question would have created the map, anyway, in order to fulfil its public service obligation.

More generally, it is a design defect of the Database Directive that it does not concern itself with the database maker's intention to recoup its investment, although it was apparently assumed, when drafting the Directive, that the prospect of such recoupment was what is driving the creation of databases in the first place. Yet, the map example is not the only one in which the database maker did not actually strive for recoupment. If Ryanair tries to prevent price comparison websites from 'scraping' its flight information database,[69] it does not do so because it wants to market the database exclusively. The database as such is not marketed at all (no third-party advertising is displayed on Ryanair's website), but the database is merely a necessary tool for Ryanair's core business (selling flights). The flight information database would therefore exist even without any protection under the Database Directive.

64 More generally, the Commission explains in its 2009 Guidance Paper, note 24, para 82, that an obligation to supply "is manifestly not capable of having negative effects on the input owner's and / or other operators' incentives to invest and innovate upstream, whether *ex-ante* or *ex-post* [...] where the upstream market position of the dominant undertaking has been developed under the protection of special or exclusive rights or has been financed by state resources".

65 Directive 2007/2/EC of the European Parliament and of the Council of 14 March 2007 Establishing an Infrastructure for Spatial Information in the European Community (INSPIRE), [2007] OJ L 108/1.

66 Article 23 of Regulation 377/2014 of the European Parliament and of the Council of 3 April 2014 Establishing the Copernicus Programme and Repealing Regulation 911/2010, [2014] OJ L 122/44.

67 Case C-490/14, note 13.

68 Recital 12 of the Directive, note 12.

69 See the facts underlying case C-30/14, note 13, and the judgement of the Tribunale di Milano, note 44. Similar 'Ryanair' cases are also known from other Member States, such as Germany.

In situations where recoupment is neither necessary nor strived for, it is unjustified to award exclusive rights and allow database makers to foreclose secondary markets. The CJEU's broad interpretation of the Database Directive may be driven by an effort to fairly allocate the income generated from utilizing the contents of a database. If a public land surveying office has used taxpayers' money to create a topographical map, a private business shall not be able to re-utilise the underlying geographical data free of charge. However, in order to achieve fair compensation, there is no need for granting exclusivity protection (potentially allowing for monopoly profits) – it would be sufficient to acknowledge a reasonable access fee.

Against this background, the Commission's proposal for a future EU framework for data access and sharing should include a proposal for revising the Database Directive. It should be critically evaluated where exclusivity protection is actually necessary for achieving the incentive effect pursued by the Directive, and where limitations and exceptions should be redefined.

Finally, the Commission is likely to propose the creation of specific access rights in favour of public authorities with regard to data needed for public interest and scientific purposes.[70] There is not much to be said about this from a competition and regulatory perspective, though, because such access rights would pursue qualitatively different objectives. They would not aim at opening secondary markets, like access rights under competition and regulatory law do, but they would aim at making data accessible to the benefit of other public policy goals (such as environmental protection and road safety in example D above).

6. Conclusion

From an efficiency perspective, mandatory data access and sharing is desirable where the value to be created on a secondary market (the data product market) more than compensates the reduced incentive for value creation on the primary market (the data resource market). EU competition law ensures this by granting data access rights only where three 'exceptional circumstances' are cumulatively met: (i) a dominant undertaking's refusal to grant access is likely to exclude all competition from the secondary market because it concerns data which is indispensable for carrying on business on that market, (ii) the refusal to grant access prevents the emergence of a new product for which there is a potential consumer demand, and (iii) the refusal to grant access is not justified by objective considerations.

70 Commission, note 1, 12-13.

These conditions will not be met where the data in question is easy to duplicate, where the access petitioner merely wants to offer the same, albeit slightly enhanced product, or where the refusal is justified by objective justifications such as data protection laws. On the other hand, where specific data is indispensable for operating a certain business, where this business yields a new product for which there is a potential consumer demand, and where there is no objective justification for the refusal to share, successful data access claims can be brought under EU competition law. This is most likely to be the case where undertakings build business models around aggregating and analysing the 'data treasures' of others. Examples are data analytics services, metasearch engines, and price comparison websites.

It is difficult to assess the positive and negative effects of data exclusivity, on the one hand, and data access and sharing, on the other hand, without considering specific market conditions. This is the advantage of regulatory law, which usually has a narrower scope of application and can therefore better be tailored around individual circumstances. A good example is the data access regime established by the EU Type Approval Regulation. In developing the future framework for data access and sharing, EU institutions and the Member States should try to identify situations in which the efficiency gains from opening up secondary markets clearly outweigh the efficiency losses that follow from reducing the incentive effect of data exclusivity. This may be the case, for example, where undertakings (or public authorities) do not need to recoup their investment in generating or collecting data because of other sources of income.

Chapter 10:

Private Law Cyber Security Obligations in the Digital Single Market

*Pieter Wolters**

1. Introduction

On 6 May 2015, the European Commission launched the Digital Single Market Strategy. This strategy is aimed at the creation of a European online market. According to the Commission, this market could lead to significant economic growth. Furthermore, it would allow small companies to scale up their activities and provide access to consumers in all of Europe.[1]

Among other initiatives, the European Union has proposed and adopted several directives and regulations in order to reduce the (legal) fragmentation.[2] These legal instruments include the General Data Protection Regulation (GDPR),[3] the

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1 About the strategy and its goals, see Commission, Communication, A Digital Single Market Strategy for Europe, COM/2015/192 final, 2-4.

2 Commission and the High Representative of the European Union for Foreign Affairs and Security Policy, Joint Communication, Cybersecurity Strategy of the European Union: An Open, Safe and Secure Cyberspace, JOIN/2013/1 final, 12-13; Commission, Digital Single Market, note 1, 2-5, 9, 11, 14; Commission, Staff Working Document, Advancing the Internet of Things in Europe, SWD/2016/110 final, 11, 23; Commission, Staff Working Document, Contractual Public Private Partnership on Cybersecurity & Accompanying Measures, SWD/2016/216 final, 7-11, 25-29; Commission, Communication, Digitising European Industry. Reaping the Full Benefits of a Digital Single Market, COM/2016/180 final, 2, 4, 6-7; Commission, Communication, ICT Standardisation Priorities for the Digital Single Market, COM/2016/176 final, 2; Commission, Communication, Strengthening Europe's Cyber Resilience System and Fostering a Competitive and Innovative Cybersecurity Industry, COM/2016/410 final, 3-4, 8-10; Commission, Communication, Mid-Term Review on the Implementation of the Digital Single Market Strategy. A Connected Digital Single Market for All, COM/2017/228 final 2, 5, 22.

3 Regulation 2016/679 of the European Parliament and of the Council of 27 April 2016 on the Protection of Natural Persons with Regard to the Processing of Personal Data and on the Free Movement of Such Data, and Repealing Directive 95/46/EC (General Data Protection Regulation), [2016] OJ L 119/1.

Proposal for an ePrivacy Regulation,[4] the Proposal for a Recast Directive,[5] the NIS Directive,[6] the Proposal for an Online Sales Directive,[7] the Radio Equipment Directive,[8] and the Proposal for a Digital Content Directive.[9]

Cyber security is another important pillar of the Digital Single Market Strategy. Cyber threats, including cybercrime and data breaches, are a borderless problem that adversely impacts the Digital Single Market. Specifically, cyber threats undermine the confidence of consumers. This lack of trust prevents them from fully utilising the possibilities of the online market. To foster the required confidence, the strategy is aimed at creating a level playing field with a high level of cyber security and consumer and personal data protection.[10]

A high level of security cannot be ensured by public authorities alone. It can only be reached when private parties are also stimulated to ensure cyber security. The Commission stimulates the European cyber security industry and the demand for cyber security.[11] However, the actors on the digital market are not sufficiently incentivised to ensure the cyber security of their products and

4 Commission, Proposal for a European Parliament and Council Regulation Concerning the Respect for Private Life and the Protection of Personal Data in Electronic Communications and Repealing Directive 2002/58/EC, COM/2017/10 final.

5 Commission, Proposal for a European Parliament and Council Directive Establishing the European Electronic Communications Code (Recast), COM/2016/590 final, 2.

6 European Parliament and Council Directive 2016/1148/EU of 6 July 2016 Concerning Measures for a High Common Level of Security of Network and Information Systems across the Union, [2016] OJ L 194/1. See also Commission and the High Representative of the Union for Foreign Affairs and Security Policy, Joint Communication, Resilience, Deterrence and Defence: Building Strong Cybersecurity for the EU, JOIN/2017/450 final, 6-7.

7 Commission, Proposal for a European Parliament and Council Directive on Certain Aspects Concerning Contracts for the Online and other Distance Sales of Goods, COM/2015/635 final.

8 European Parliament and Council Directive 2014/53/EU of 16 April 2014 on the Harmonisation of the Laws of the Member States Relating to the Making Available on the Market of Radio Equipment and Repealing Directive 1999/5/EC, [2014] OJ L 153/52.

9 Commission, Proposal for a Directive of the European Parliament and of the Council on Certain Aspects Concerning Contracts for the Supply of Digital Content, COM/2015/634 final.

10 About the Digital Single Market and the importance of cyber security, see Commission and the High Representative, Cybersecurity Strategy of the European Union, note 2, 2; Commission, Digital Single Market, note 1, 3, 9, 12-14; Commission, Internet of Things, note 2, 27-31; Commission, Communication, European Cloud Initiative – Building a Competitive Data and Knowledge Economy in Europe, COM/2016/178 final, 11; Commission, Communication, EU eGovernment Action Plan 2016-2020. Accelerating the Digital Transformation of Government, COM/2016/179 final, 3; Commission, ICT Standardisation, note 2, 8; Commission, Partnership on Cybersecurity, note 2, 4-5, 8; Commission, Strengthening Europe's Cyber Resilience, note 2, 2; Commission, Mid-Term Review, note 2, 7, 12; Commission and the High Representative, Resilience, Deterrence and Defence, note 6, 2-6.

11 Commission and the High Representative, Cybersecurity Strategy of the European Union, note 2, 2, 4, 12-13; Commission, Strengthening Europe's Cyber Resilience, note 2, 2-3, 12-13; Commission, Mid-Term Review, note 2, 13. Cf. Commission, Staff Working Document, Quantum Technologies, SWD/2016/107, 2, 6-7.

services as long as no legal obligations towards the consumers exist.[12] For this reason, the (implementation of)[13] existing and proposed law of the European Union imposes several private law[14] cyber security duties. Still, gaps continue to exist.[15] The security of the digital market depends on many different actors.[16] Even under the proposed rules, not all of these parties have a legal obligation to ensure the cyber security of their service or product.

In this Chapter, I answer the following question: to what extent does the Digital Single Market impose consistent private law cyber security obligations on the providers of goods and services? I show that the duty to ensure cyber security depends on criteria that are, to some extent, arbitrary. Although the existing and proposed directives and regulations create a significant degree of harmonisation, their approach remains piecemeal. They do not cover all relevant actors and activities. Furthermore, there are important differences between the existing duties to ensure cyber security. These gaps and differences encourage strategic behaviour by the actors on the digital market. They allow them to avoid the legal duties. If the European Union is truly committed to the creation of a level playing field with a high level of cyber security, it should adopt a unified approach with a harmonised cyber security obligation.

This Chapter proceeds as follows. I start with a short introduction about cyber security on the digital market (Section 2). Next, Sections 3 through 6 give an overview of the existing and proposed cyber security obligations. Subsequently, I show how the gaps and the differences between the rules lead to undesirable distinctions (Section 7). In the conclusion (Section 8), I present the standard that a harmonised cyber security obligation should obtain.

12 E.g. B.C. Kim, P-Y. Chen and T. Mukhopadhyay, 'The Effect of Liability and Patch Release on Software Security: The Monopoly Case', (2011) 20 Production and Operations Management 603; T. Moore and R. Anderson, *Economics and Internet Security: A Survey of Recent Analytical, Empirical and Behavioral Research,* (TR-03-11, Harvard University, 2011), 1-3; R. Gellman and P. Dixon, 'Failures of Privacy Self-Regulation in the United States', in D. Wright and P. De Hert (eds), *Enforcing Privacy. Regulatory, Legal and Technological Approaches* (Law, Governance and Technology Series, Vol. 25, Springer, 2016), 54, 74; P. Wolters and P. Verbruggen, 'De verplichting tot het bijwerken van onveilige software', (2016) 7123 Weekblad voor Privaatrecht, Notariaat en Registratie, 832.

13 Generally, directives do not influence 'horizontal' relations. They need to be implemented in national law. Case 152/84 *Marshall* [1986] ECLI:EU:C:1986:84; case C-397-403/01 *Pfeiffer* [2004] ECLI:EU:C:2004:584; case C-144/04 *Mangold* [2005] ECLI:EU:C:2006:709; case C-555/07 *Kücükdeveci* [2010] ECLI:EU:C:2010:21. This will be assumed in the remainder of this Chapter.

14 This Chapter does not discuss the penalties pursuant to national or European criminal or administrative law or the obligations of public law authorities.

15 Cf. Commission, Partnership on Cybersecurity, note 2, 14; Commission, Internet of Things, note 2, 22-23; Commission, Mid-Term Review, note 2, 12.

16 Cf. P. Wolters, 'The Security of Personal Data under the GDPR: A Harmonized Duty or a Shared Responsibility?', (2017) 7 International Data Privacy Law, 165, 166-167.

2. Cyber Security

'Cyber security' is about the protection of digital assets.[17] The term 'digital assets' includes both the computer systems and the (personal) data that is processed by these systems. Cyber security has several objectives. First, it is aimed at protecting the 'confidentiality' of the assets. For example, a company must prevent the illegal dissemination of its customer data. Next, the computer systems and data must be 'available' to authorised persons. For example, a user should be able to access its cloud storage. Finally, cyber security protects the 'integrity' of the digital assets. It should not be possible to modify the computer systems or processed data without authorization. This pluralist objective, 'confidentiality, integrity, and availability', is also stressed by several legal rules that create a duty to ensure cyber security.[18]

In the Digital Single Market, the goals of cyber security can be roughly divided in three groups. First, the users must be able to safely use the digital market. Their 'personal data' should be secure (Section 3). Next, the infrastructure of the digital market should be reliable. It should be able to withstand attacks that threaten its availability and proper functioning (Section 4). Finally, the goods and services that are offered on the digital market should be secure. Although the digital market can be used to offer all kinds of goods or services, cyber security is primarily relevant when the offered item consists of or contains information technology (Section 5). All of these goals are protected by both European and national law (Section 6).

The following Sections do not provide a detailed description of all the existing and proposed private law duties to ensure cyber security. Instead, they give an overview that is meant to illustrate the breath, diversity, and limitations of the rules.

17 M. Gasser, *Building a Secure Computer System,* (Van Nostrand Reinhold, 1988), 3. Synonyms include 'computer security' and 'IT security'.

18 Data Protection Directive, infra note 22, Article 17(1), GDPR, note 3, Article 31(2); ePrivacy Directive, infra note 30, Article 4(1bis); NIS Directive, note 6, Article 4(2). About these objectives, see also Article 29 Data Protection Working Party, Opinion 05/2012 Cloud Computing, (2012), 01037/12/EN WP 196, 5, 14-15; Commission Communication, Building a European Data Economy, COM/2017/9 final, 6. Cf. Framework Directive, infra note 34, Article 13a; Recast Directive, note 5, Article 40; Digital Content Directive, note 9, Article 6(1)(a).

3. The Security of Personal Data

The concept of 'personal data' includes any information relating to an identified or identifiable natural person, the 'data subject'.[19] Anything that is done with this data is a 'processing' operation. This includes day-to-day activities such as collecting, recording, storing, and erasing the information.[20] The European Union has issued several legal instruments that create a duty to secure personal data. Apart from some minor exceptions, every natural or legal person that processes personal data (of data subjects who are located) in the European Union has cyber security obligations.[21]

The GDPR creates a broad duty to secure personal data. This Regulation will replace the Data Protection Directive[22] and its national implementations on 25 May 2018.[23] Many rules of the Directive are also included in the GDPR. However, differences in the application and implementation have created legal uncertainty and different levels of protection in the EU Member States. The directly applicable Regulation was adopted to remove these differences.[24]

Article 32 of the GDPR obliges every 'controller' and 'processor' to implement appropriate technical and organisational measures to secure the personal data.[25] A breach of this duty leads to liability pursuant to Article 82(1) GDPR.

19 GDPR, note 3, Article 4(1); Data Protection Directive, infra note 22, Article 4(1); Article 29 Data Protection Working Party, Opinion 4/2007 on the Concept of Personal Data, (2007), 01248/07/EN WP 136.

20 GDPR, note 3, Article 4(2); Data Protection Directive, infra note 22, Article 4(2).

21 For a detailed overview, see P. Wolters, note 16. About the material and territorial scope, see GDPR, note 3, Articles 2, 3.

22 European Parliament and Council Directive 95/46/EC of 24 October 1995 on the Protection of Individuals with Regard to the Processing of Personal Data and on the Free Movement of Such Data, [1995] OJ L 281/31.

23 GDPR, note 3, Articles 94, 99(2). The Member States are not allowed to adopt or maintain parallel national legislation. Case 39/72 *Commission v Italy* [1973] ECLI:EU:C:1973:13; case 94/77 *Zerbone* [1978] ECLI:EU:C:1978:17; cases C-539 and C-550/10 P *Al-Aqsa* [2012] ECLI:EU:C:2012:711; D. Chalmers, G. Davies and G. Monti, *European Union Law. Text and Materials,* (Cambridge University Press, 2014), 112.

24 GDPR, note 3, recitals 2, 7, 9, 10, 13; V. Reding, 'The European Data Protection Framework for the Twenty-First Century', (2012) 2 International Data Privacy Law, 119, 127; B. van der Sloot, 'Do Data Protection Rules Protect the Individual and Should They? An Assessment of the Proposed General Data Protection Regulation', (2014) 4 International Data Privacy Law, 307, 316-320; J.P. Albrecht, 'How the GDPR Will Change the World', (2016) 2 European Data Protection Law Review, 287, 288; S. Davies, 'The Data Protection Regulation: A Triumph of Pragmatism over Principle?', (2016) 2 European Data Protection Law Review, 290, 293-294; P. de Hert and V. Papakonstantinou, 'The New General Data Protection Regulation: Still a Sound System for the Protection of Individuals?', (2016) 32 Computer Law and Security Review, 179, 182; P. Wolters, note 16, 165.

25 Under the Data Protection Directive, note 22, the processor only has an indirect duty, based on a contract with the controller, to secure the personal data. Data Protection Directive, Article 17(3), (4); P. Wolters, note 16, 168.

Everyone that processes data is either a controller or a processor.[26] A 'controller' is a natural or legal person that determines the purpose and means of the processing of personal data.[27] In contrast, a 'processor' processes the data on behalf of the controller.[28]

Almost every actor on the digital market processes personal data. The vendor of tangible goods needs to know the name and the address of the purchaser. The seller of 'digital content' (Section 5.3) records the payment details. Even 'free' websites and online services frequently process personal information through the use of tracking and web analytics cookies or by recording the IP addresses of the visitors.[29]

4. The Infrastructure of the Digital Market and Other Essential Services

4.1. *The Providers of Internet*

The ePrivacy Directive[30] protects the personal data that is transmitted through the internet. An internet network is an 'electronic communications network', a transmission system that permits the conveyance of signals. The internet service provider (ISP) provides an 'electronic communications service', a service that consists of the conveyance of signals on such a network.[31]

Article 4 of the Directive obliges the ISP to take appropriate technical and organisational measures to safeguard the security of its services. It must do this

26 Cf. Article 29 Data Protection Working Party, Opinion 1/2010 on the Concepts of "Controller" and "Processor", (2010), 00264/10/EN WP 169, 31.

27 GDPR, note 3, Article 4(7); Data Protection Directive, note 22, Article 2(d); Article 29 Data Protection Working Party, note 26, 7-24.

28 GDPR, note 3, Article 4(8); Data Protection Directive, note 22, Article 2(e); Article 29 Data Protection Working Party, note 26, 24-30.

29 Cf. GDPR, note 3, recital 30; Recast Directive, note 5, recital 16; case C-582/14 *Breyer* [2016] ECLI:EU:C:2016:779; Article 29 Data Protection Working Party, Opinion 2/2010 on Online Behavioural Advertising, (2010), 00909/10/EN WP 171, 3, 7, 9; F.J. Zuiderveen Borgesius, 'Personal Data Processing for Behavioural Targeting: Which Legal Basis?', (2015) 5 International Data Privacy Law, 163, 164; Commission, Staff Working Document – Online Platforms, SWD/2016/172, 41-43; A. Esteve, 'The Business of Personal Data: Google, Facebook, and Privacy Issues in the EU and the USA', (2017) 7 International Data Privacy Law, 36, 39.

30 European Parliament and Council Directive 2002/58/EC of 12 July 2002 Concerning the Processing of Personal Data and the Protection of Privacy in the Electronic Communications Sector, [2002] OJ L 201/37.

31 About these definitions, see Framework Directive, infra note 34, Article 2(a), (c); Recast Directive, note 5, Article 2(1), (4). The Directives explicitly mention an internet network as an example of an electronic communications network. Recital 10 of the Framework Directive and Article 2(4) of the Recast Directive state that providing access to the internet is an electronic communications service. These definitions also apply in the context of the ePrivacy Directive. ePrivacy Directive, note 30, Article 2.

in conjunction with the provider of the internet network. However, the ISP and the provider of the internet network are also processors and thus obliged to secure personal data pursuant to Article 32 of the GDPR. The proposed ePrivacy Regulation removes this overlap. Although the draft Report for the European Parliament proposes an amendment that creates a security obligation,[32] the current proposal does not impose any duties to secure personal data.[33]

The ePrivacy Directive, the proposed ePrivacy Regulation and GDPR are primarily aimed at the protection of *personal data*. However, the ISP and the provider of the network are also obliged to take appropriate technical and organisational measures to secure the integrity and continuity of their *networks and services*. This duty is imposed by Article 13a of the Framework Directive.[34] It is also contained in Article 40 of the proposed Recast Directive.[35]

4.2. *Other Internet-Based Communication*

Many services on the digital market do not provide access to the internet and convey signals themselves, but *use* the internet to transfer signals. These services include close substitutes to traditional 'electronic communications services' such as (web-based) e-mail, Voice over IP, and instant messaging. The Framework Directive does not clarify whether these services fall under the scope of this concept. The Article 29 Data Protection Working Party concludes that they do not.[36] The European Commission appears to share this conclusion.[37]

32 M. Lauristin, 'Draft Report on the Proposal for a Regulation of the European Parliament and of the Council Concerning the Respect for Private Life and the Protection of Personal Data in Electronic Communications and Repealing Directive 2002/58/EC (Regulation on Privacy and Electronic Communications)', (2017), 2017/0003(COD), amendment 116.

33 About this overlap, see GDPR, note 3, Article 95; ePrivacy Regulation, note 4, memorandum 2, 8; P. Wolters, note 16, 169-170.

34 Directive 2002/21/EC of the European Parliament and of the Council of 7 March 2002 on a Common Regulatory Framework for Electronic Communications Networks and Services (Framework Directive), [2002] OJ L 108/33. The Directive has been amended several times, most notably by Directive 2009/140/EC, [2009] OJ L337/37. In this Chapter, 'Framework Directive' refers to the consolidated version.

35 The Recast Directive replaces the Framework Directive and several other Directives. About the relation between this security obligation and the proposed ePrivacy Regulation, cf. M. Lauristin, note 32, amendment 118.

36 Article 29 Data Protection Working Party, Opinion 3/2016 on the Evaluation and Review of the ePrivacy Directive (2002/58/EC), (2016), 16/EN WP 240, 5-7. The Article 29 Data Protection Working Party is an independent advisory organ of the European Union. See Data Protection Directive, note 22, Articles 29, 30.

37 Commission, Communication, Online Platforms and the Digital Single Market. Opportunities and Challenges for Europe, COM/2016/288 final, 6-7.

The proposed Recast Directive expands the scope of the security obligations discussed in Section 4.1. It includes 'interpersonal communications services' in the definition of traditional 'electronic communications service'. An interpersonal communications service enables direct interpersonal and interactive exchange of information through electronic communications networks between a finite number of persons. This includes the aforementioned communication services.[38]

The concept 'interpersonal communications service' does not cover all online communication. Specifically, it excludes communications where no finite number of receivers is determined by the sender, such as websites, blogs, and social networks. Furthermore, purely ancillary communication features that are intrinsically linked to another service are not covered.[39] However, these forms of communication can still fall under the scope of the GDPR if they are used to process personal data.

4.3. The Operators of Essential Services and Digital Service Providers

Articles 14 and 16 of the NIS Directive oblige the 'operators of essential services' and 'digital service providers' to take appropriate and proportionate technical and organisational measures to manage the risks posed to the 'security' of their 'network and information systems'.[40] The Directive is aimed at the security of the personal data that are sent through these systems and at the security of the services and systems themselves.[41]

The NIS Directive imposes a security obligation on many actors that facilitate the digital market. First of all, Annex II lists 'IXPs', 'DNS service providers' and 'TLD name registries' as operators of essential services in the sector 'digital infrastructure'.[42] Next, it covers services that are necessary for the proper functioning of the online market. Annex III lists 'online marketplaces' and 'online search engines' as digital services.[43] These services allow consumers and traders to find each other.[44]

Finally, 'cloud computing services' are also digital services.[45] The Article 29 Data Protection Working Party describes 'cloud computing' as "a set of technologies and service models that focus on the internet-based use and delivery of IT

38 Recast Directive, note 5, recitals 14-16, Article 2(4)-(5).
39 Ibid, recital 17, Article 2(5).
40 About these concepts, see NIS Directive, note 6, Articles 4(1)-(2), (4)-(6), 5(2).
41 Ibid, Article 4(1)(c), (2), recitals 46, 63, 75; P. Wolters, note 16, 168.
42 These concepts are defined in NIS Directive, note 6, Article 4(13)-(16), recital 18.
43 These concepts are defined in NIS Directive, note 6, Article 4(17)-(18), recitals 15-16, 55.
44 Commission, Online Platforms, note 29, 18-20, 30-32, 40-41.
45 Annex III, 3. 'Cloud computing services' is defined in NIS Directive, note 6, Article 4(19), recital 17.

applications, processing capability, storage and memory space."[46] Although these services are not directly required for the digital market, they affect its functioning in important ways.

Traditionally, users employ digital content that is installed on their own hardware. With cloud computing, both the hardware and digital content can be provided over the internet. For example, a company can use cloud storage to store the personal data of its customers. Furthermore, it can process this data by using software that is installed and run on an external server. The user only needs a computer and software that provides access to the cloud (a 'cloud client').

Cloud computing can generate important economic benefits. However, it also creates additional risks.[47] With cloud services, the cyber security of the service and data also depends on the cloud service provider and the infrastructure. For example, the confidentiality of personal data can be violated if the security of the cloud service provider is breached. Furthermore, the cyber security of the service depends on the confidentiality, availability, and integrity of the internet. Finally, the use of a (third-party) cloud client, such as a web browser, can create additional vulnerabilities.

4.4. Online Platforms

'Online platforms' are online multi-sided markets where users are brought together by a platform operator in order to facilitate an interaction such as the exchange of information or a commercial transaction.[48] Examples of these platforms include online advertising platforms, marketplaces, search engines, social media, creative content outlets, application distribution platforms, communications services, payment systems, platforms for the collaborative economy and price comparison websites.[49] Online platforms play an important role in the digital market.[50] For this reason, the European Commission

46 Article 29 Data Protection Working Party, note 18, 4. See also W.K. Hon, C. Millard and I. Walden, 'The Problem of "Personal Data" in Cloud Computing: What Information Is Regulated? – The Cloud of Unknowing', (2011) 1 International Data Privacy Law, 211, 212; S.Y. Esayas, 'A Walk in the Cloud and Cloudy It Remains: The Challenges and Prospects of "Processing" and "Transferring" Personal Data', (2012) 28 Computer Law and Security Review, 662, 663; J. Ullrich et al, 'The Role and Security of Firewalls in Cyber-Physical Cloud Computing', (2016) 18 EURASIP Journal on Information Security 2016, 2-3.
47 Article 29 Data Protection Working Party, Cloud Computing, note 46, 4-6, 14-17.
48 Commission, Online Platforms, note 29, 1.
49 Commission, Online Platforms and the Digital Single Market, note 37, 2; Commission, Online Platforms, note 29, 1, 16-44.
50 Cf. Commission, Online Platforms and the Digital Single Market, note 37, 2-4; Commission, Online Platforms, note 29, 8-15, 44-45.

has analysed their regulatory framework. Among other conclusions, the Commission emphasizes the importance of trust in the online platforms and the digital market.[51]

In regard to cyber security, several recently adopted or proposed European legal instruments foster this trust. Although no specific rules for online platforms have been adopted or proposed, the instruments impose security obligations on various platforms. Like all other actors that process personal data, they are obliged to secure the data pursuant to Article 32 of the GDPR.[52] Furthermore, platforms that can be qualified as 'online marketplaces' and 'online search engines' are obliged to ensure the cybersecurity pursuant to Article 16 of the NIS Directive.[53] Finally, the proposed Recast Directive imposes a duty to secure interpersonal communications services that are offered by the platforms.[54]

5. The Suppliers of Goods and the Providers of Services – European Directives

The digital market can be used to offer goods and services. For this use of the digital market, cyber security is relevant in two ways. First, the handling of the purchase should be secure. The cyber security duties in relation to the handling have been discussed in the previous Sections. Among other obligations, the vendor or service provider should secure the processed personal data.

Next, goods and services that consist of or contain information technology should be secure. Several existing and proposed Directives impose obligations on the suppliers of goods and services. Although these legal instruments are not primarily focussed on cyber security, some include rules that could create security obligations. This Section gives an overview of these duties.

5.1. The Suppliers of Goods

Pursuant to the Sales Directive,[55] a seller is obliged to deliver goods that are in conformity with the contract. Among other requirements, the goods must be fit for the purposes for which goods of the same type are normally used. Furthermore, they should show the quality and performance that the consumer

51 Commission, Online Platforms and the Digital Single Market, note 37, 4-5, 10-11, 15. See also Section 1.
52 Section 3; Commission, Online Platforms and the Digital Single Market, note 37, 4, 10.
53 Section 4.3; Commission, Online Platforms and the Digital Single Market, note 37, 4-5.
54 Section 4.2; Commission, Online Platforms and the Digital Single Market, note 37, 6-7.
55 European Parliament and Council Directive 1999/44/EC of 25 May 1999 on Certain Aspects of the Sale of Consumer Goods and Associated Guarantees, [1999] OJ L 171/12.

can reasonably expect.[56] The consumer can exercise several rights in the case of a lack of conformity.[57] These mandatory requirements are also imposed by the proposed Online Sales Directive.[58] This proposal replaces the Sales Directive when the sale is conducted on the digital market.[59]

These requirements can also impose cyber security obligations. For example, most consumers will presume that the purchased information technology is reasonably secure. Although a buyer cannot expect perfect cyber security,[60] it can assume that the digital content does not have any known vulnerabilities. Furthermore, the security of the sold item could affect the fitness for its purpose. A developer could argue that a product with certain security flaws can still fulfil its functions. However, information technology that can never be used securely should not be considered fit for any purpose.[61]

The Sales Directive and the proposed Online Sales Directive only impose these requirements if the digital content is embedded in a physical object. The Directives are only applicable to tangible movable items that are sold to consumers.[62] They do not apply to digital content that is not embedded or if the buyer is a professional party. In relation to these transactions, the duty of conformity depends on the national law of the Member States.[63]

Pursuant to the Product Liability Directive, the 'producer' can be held liable if the 'product' does not provide the safety which a person is entitled to expect.[64] Like the Sales Directive and the proposed Online Sales Directive, the Product Liability Directive only imposes a limited duty to ensure the cyber security of the goods. First, it is unclear whether the digital content that is not embedded is

56 Ibid, Article 2(2)(c)-(d).
57 Ibid, Article 3; Online Sales Directive, note 7, Articles 9-13.
58 Sales Directive, note 55, Article 7; Online Sales Directive, note 7, Articles 4-5.
59 Online Sales Directive, note 7, Articles 2(e), 19(1). The directive applies to 'distance sales contracts'.
60 See e.g. J-P. Triaille, 'The EEC Directive of July 25, 1985 on Liability for Defective Products and Its Application to Computer Programs', (1993) 9 Computer Law & Security Review, 214, 220; T.F.E. Tjong Tjin Tai et al, *Duties of Care and Diligence Against Cybercrime,* (Tilburg University, 2015), 56.
61 Cf. T.F.E. Tjong Tjin Tai et al, note 60, 55-56.
62 Sales Directive, note 55, Articles 1(1), (2)(b); Online Sales Directive, note 7, Articles 1(1), 2(d).
63 P. Wolters, note 16, 171. Several national legal systems qualify the supply of digital content as a sale. For an overview, see C. von Bar and E. Clive (eds), *Principles, Definitions and Model Rules of European Private Law. Draft Common Frame of Reference (DCFR),* (Oxford University Press, 2010), 1217-1218.
64 Council Directive 85/374/EEC of 25 July 1985 on the Approximation of the Laws, Regulations and Administrative Provisions of the Member States Concerning Liability for Defective Products, [1985] OJ L 210/29, Art. 1, 2, 3, 6.

included in the definition of 'product'.[65] Furthermore, the Directive only provides a right of compensation for damage to private property or damage caused by death or personal injury.[66] In many instances, a defect in the security will not lead to these types of damage. In particular, a breach of the cyber security of personal data will only cause these forms of damage in exceptional situations.[67]

The Radio Equipment Directive covers some of the gaps of the Product Liability Directive. This Directive replaces the R&TTE Directive.[68] It imposes obligations on the 'manufacturers', 'authorised representatives', 'importers' and 'distributors' that make radio equipment 'available on the market' or 'put the equipment into service'.[69] The definition of 'radio equipment' is broad. It includes all equipment that intentionally emits or receives 'radio waves' for the purpose of 'radio communication' or 'radiodetermination'.[70] This includes objects that are part of the 'internet of things' through a wireless connection.[71]

The manufacturer and the other 'economic operators' are obliged to ensure that the radio equipment is constructed in accordance with several essential requirements.[72] These requirements are also imposed on the manufacturers of software that allows the radio equipment to be used as intended. Furthermore,

65 Product Liability Directive, note 64, Article 2 ('all movables'). About this discussion, see NIS Directive, note 6, recital 50; Lord Cockfield, 'Answer to Written Question No. 706/88', [1989] OJ C114/42; J-P. Triaille, note 60, 217-220; K. Alheit, 'The Applicability of the EU Product Liability Directive to Software', (2001) 34 Comparative and International Law Journal of Southern Africa, 188, 199-203; S. Whittaker, *Liability for Products: English Law, French Law, and European Harmonization,* (Oxford University Press, 2005), 477; L. Vihul, *The Liability of Software Manufacturers for Defective Products,* (Tallinn Papers, Vol. 1, No. 2, CCDCOE, 2014), 8-9; G. Brüggemeier, *Tort Law in the European Union,* (Kluwer Law International, 2015), 177; P. Verbruggen et al, 'Towards Harmonised Duties of Care and Diligence in Cybersecurity', in Dutch Cyber Security Council (ed), *European Foresight Cyber Security Meeting 2016*, *Public Private Academic Recommendations to the European Commission about Internet of Things and Harmonization of Duties of Care,* (Cyber Security Raad, 2016), 99-100.

66 Product Liability Directive, note 64, Article 9.

67 J-P. Triaille, note 60, 222; K. Alheit, note 65, 189-190, 205; L. Vihul, note 65, 10-12; P. Verbruggen and others, note 65, 100-101. These forms of damages are likely with tangible products with embedded software (e.g. 'self-driving cars') or software that controls a physical object.

68 European Parliament and Council Directive 1999/5/EC of 9 March 1999 on Radio Equipment and Telecommunications Terminal Equipment and the Mutual Recognition of Their Conformity, [1999] OJ L 91/10.

69 Ibid, Articles 1(1), 2(1), (9)-(16).

70 Ibid, Article 1(1), (1)-(4), recital 6.

71 Cf. Commission, Internet of Things, note 2, 22. For examples of equipment that is covered under the definition, see Commission, Communication in the Framework of the Implementation of Directive 2014/53/EU of the European Parliament and of the Council on the Harmonisation of the Laws of the Member States Relating to the Making Available on the Market of Radio Equipment and Repealing Directive 1999/5/EC, [2017] OJ C 149/6.

72 The extent of this obligation depends on the type of actor. Radio Equipment Directive, note 68, Articles 10-14, recital 29.

the combination of the equipment and software should also be in compliance with the requirements.[73]

Pursuant to Article 3(1)(a), the equipment must be constructed so as to ensure the protection of property and the health and safety of persons. Furthermore, radio equipment within certain categories or classes should not harm the network or misuse network resources, protect against fraud and incorporate safeguards to protect the personal data and privacy of the user and the subscriber.[74] The Commission is empowered to adopt delegated acts in order to specify which categories or classes need to comply with these requirements. Currently, it has not adopted such delegated acts.[75]

5.2. The Providers of Services

Several directives that are related to goods impose cyber security obligations on the suppliers. In contrast, the European legal instruments that apply to services do not contain security obligations. For example, the Services Directive does not impose mandatory rules about the quality of the provided service.[76] It does not contain any provisions about cyber security. Article 43 merely clarifies that the Data Protection and the ePrivacy Directives should be respected. Similarly, the proposal for an E-Card Regulation does not contain any cyber security obligations.[77]

5.3. The Digital Content Directive

The proposed Digital Content Directive imposes several duties on the 'suppliers' of digital content. Although the current proposal will need to be amended in various ways and is only applicable if the purchasing party is a 'consumer', it has a broad scope that fills some of the gaps in the existing legal framework.[78]

First of all, 'digital content' includes both digital products and digital services. It is not limited to data that is supplied in digital form, such as video, audio, applications, games, and other software. It also includes services that allow the consumers to interact with digital data that is provided by themselves or other

73 Ibid, Articles 3(3)(i), 4(1), recitals 16, 18.

74 Ibid, Article 3(3)(d)-(f).

75 Ibid, Article 3(3); Commission, Implementation of Directive 2014/53/EU, note 75.

76 Directive 2006/123/EC of the European Parliament and of the Council of 12 December 2006 on Services in the Internal Market (Services Directive), [2006] OJ L 376/36, Article 26.

77 Commission, Proposal for a European Parliament and Council Regulation Introducing a European Services E-Card and Related Administrative Facilities, COM/2016/824 final.

78 About these definitions, see Digital Content Directive, note 9, Articles 2(3)-(4).

consumers such as cloud services and social media.[79] Furthermore, the proposed Directive also applies to durable mediums that only function as a carrier of the digital content.[80]

Furthermore, the digital content does not have to be 'transferred'. The proposed Directive also applies when the supplier provides access to the content or makes it available for a certain period of time.[81] Next, the proposal is not limited to a specific payment or delivery model. Although the proposed Digital Content Directive only applies when the consumer provides a counter-performance, this 'price' can also consist of (personal) data. However, the proposal only applies if the data is provided actively. It does not apply when the personal data is collected by a cookie.[82] The requirement that the data is provided actively can create undesirable incentives and loopholes.[83] For this reason, the draft Report for the European Parliament proposes to make the Directive also apply if the data is provided or collected in another way.[84]

Recital 11 limits the scope of the proposed Digital Content Directive. It excludes digital content that is embedded in physical goods. It states that the Directive should not apply if the digital content operates as an integral part of the goods and its functions are subordinate to the main functionalities of the goods. This exclusion can create various demarcation problems. For example, it is necessary to distinguish between digital content that is embedded in a physical object and digital content that is sold in addition to the tangible item.[85] For this reason, the draft Report proposes amendments that will make the Directive apply to embedded digital content.[86]

The supplier has a conformity duty that includes a cyber security obligation. Pursuant to Article 6(1)(a) of the proposed Digital Content Directive, the digital content must be of the accessibility, continuity and security as required by the

79 Ibid, Articles 2(1), recitals 11, 29; E. Gebhardt and A. Voss, 'Draft Report on the Proposal for a Directive of the European Parliament and of the Council on Certain Aspects Concerning Contracts for the Supply of Digital Content', (2016), 2015/0287(COD), 39.

80 E.g. DVDs or USB drives. Digital Content Directive, note 9, Article 3(3), recital 12.

81 ibid, Article 2(10), recital 29.

82 ibid, Article 3(1), recital 14.

83 H. Beale, 'Scope of Application and General Approach of the New Rules for Contracts in the Digital Environment', (2015), Policy Department C In-Depth Analysis, PE 536.493, 13; V. Mak, 'The New Proposal for Harmonised Rules on Certain Aspects Concerning Contracts for the Supply of Digital Content', (2016), Policy Department C In-Depth Analysis, PE 536.494, 9; R. Mańko, 'Contracts for Supply of Digital Content', (2016), EPRS In-Depth Analysis, PE 582.048, 16.

84 E. Gebhardt and A. Voss, note 79, 40, amendment 31.

85 V. Mak, note 83, 8; R. Mańko, note 83, 8-9; P. Verbruggen and others, note 65, 94; C. Wendehorst, 'Sale of Goods and Supply of Digital Content – Two Worlds Apart?', (2016), Policy Department C In-Depth Analysis, PE 556.928, 8.

86 E. Gebhardt and A. Voss, note 79, 40, amendments 9-10, 24, 34.

contract. Still, the proposal only provides weak protection. Article 6 (2) contains 'objective' conformity requirements. However, these default rules only apply if the contract does not specify the requirements of the digital content. Under the proposal, the supplier can stipulate that no cyber security is required.[87] For this reason, the draft Report proposes amendments in order to make the objective conformity requirements mandatory.[88]

6. National Law

The previous Sections show that the European legal instruments impose several security obligations. However, national law can also create private law cyber security duties. These obligations can be imposed by traditional contract and tort law. Furthermore, they can be created by broad implementations of European directives. For example, the conformity rules of the Sales Directives can be applied to the 'sale' of software that is not embedded in a physical object.[89]

In the context of this Chapter, it is important to note that these national rules are not likely to create the desired level playing field with a high level of cyber security and consumer and personal data protection. The existence and scope of the security obligations depend solely on national law. They will likely be different in each Member State. Moreover, the exact content of these obligations remains unclear in most national jurisdictions.[90]

7. Synthesis. Strategic Behaviour and Arbitrary Distinctions

Sections 3 through 5 show that various European directives and regulations create cyber security duties. Table 1 gives an overview of the obligations discussed. It shows that relevant differences exist between the protected interests and obligations. This Section shows that, assuming all of the proposals are adopted in their current form, several distinctions allow the actors on the digital market to avoid or diminish their cyber security obligations. For example,

87 H. Beale, note 83, 20-21; V. Mak, note 83, 15; R. Mańko, note 83, 1, 17-18; P. Verbruggen et al, note 65, 93.

88 E. Gebhardt and A. Voss, note 79, 41, amendments 55, 60. Cf. Sales Directive, note 55, Article 7; Online Sales Directive, note 7, Article 4(3).

89 Section 5.1; note 63.

90 P. Verbruggen et al, note 65, 83-84; P. Wolters, note 16, 171. The same problem exists in the context of the duties with a basis in European law. European Union Agency for Fundamental Rights, Access to Data Protection Remedies in EU Member States, (European Union, 2013), 50; P. Larouche, M. Peitz and N. Purtova, *Consumer Privacy in Network Industries. A CERRE Policy Report,* (CERRE, 2016), 57.

they can escape their duties by avoiding the use of the cloud (Section 7.1), by not processing personal data in business to business relations (Section 7.2), by detaching the sale of digital content from the sale of physical goods (Section 7.3), and by avoiding the applicability of the NIS Directive (Section 7.4). This strategic behaviour is inefficient and undermines trust in the digital market (Section 7.5).

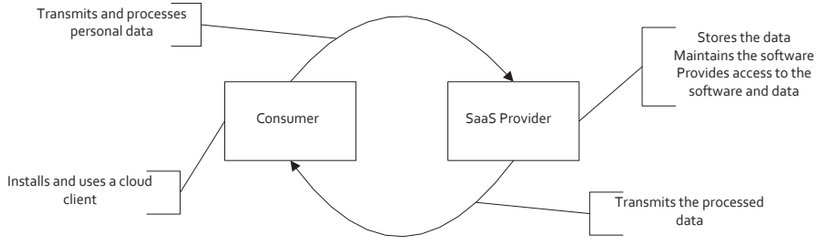
Table 1. Overview of the cyber security obligations, assuming that all of the proposals discussed are adopted in their current form

Legal basis	Qualification of the governed actor	Examples of governed actors and services	Obligation	Primary protected interest
GDPR, Article 32	Controller and processor	Every actor that processes personal data	Appropriate technical and organisational security measures	Personal data
ePrivacy Regulation			No cyber security obligations	Personal data
Recast Directive, Article 40	Providers of publicly available electronic communications services and networks	ISPs; Providers of internet networks; web-based) e-mail; Voice over IP; instant messaging; certain online platforms.	Appropriate technical and organisational security measures	Continuity and integrity of the services and networks
NIS Directive, Article 14 and 16	Operator of essential services and Digital service provider	IXPs; DNS service providers; TLD name registries; Cloud computing services; online marketplaces; online search engines	Appropriate and proportionate technical and organisational security measures	Personal data and services
Online Sales Directive, Article 4-5	Seller	Sellers of tangible movable goods with embedded IT	Conformity	The contract, fitness for a purpose and reasonable expectations
Product Liability Directive, Article 1	Producer	Producers of 'movables' with embedded IT	Liability for damage caused by defects in the product	Personal property and the health and safety of persons
Radio Equipment Directive, Article 3	Economic operators	Several actors that produce or sell radio equipment	Conformity with essential requirements	Property and the health and safety of persons. Other interests for certain categories
Services Directive			No cyber security obligations	
Digital Content Directive, Article 6	Supplier	Anyone who supplies digital data or services against a counter-performance	Conformity	Accessibility, continuity and security as required by the contract or the purpose.

7.1. 'Cloud-Based' or Download-and-Install'

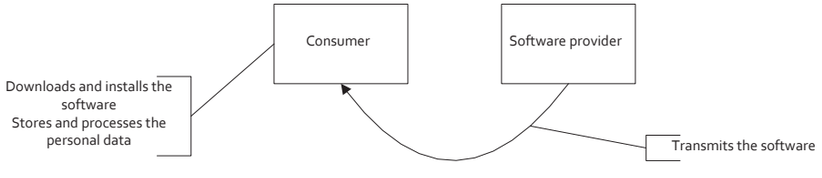
The GDPR creates a harmonised framework for the protection of personal data. However, it does not apply to actors that do not process personal data, even if the security of this data is involved. Consider the following example. A software developer offers cloud-based 'Software-as-a-Service' (SaaS) that can be used to process sensitive personal data. The consumers use a third-party cloud client to access the software. The developer is bound by the GDPR, the NIS Directive and the proposed Digital Content Directive (Sections 3, 4.3, 5.3). Figure 1 displays this 'cloud-based model'.

Figure 1. The cloud-based model



The developer wishes to avoid the security obligations of the GDPR and the NIS Directive. In order to do this, it decides to abandon the cloud-based model. Instead, it uses the digital market to offer software that needs to be downloaded and installed on the hardware of the consumers. Figure 2 displays this 'download-and-install' model.

Figure 2. The download-and-install model



Under this model, the sensitive personal data is processed locally by the consumer. In relation to this data, the developer of the software is no controller or processor. The GDPR only obliges the developer to secure the personal data that is processed to handle the purchase (Section 5). Furthermore, the developer must ensure that the provided software is fit for its purposes pursuant to the proposed Digital Content Directive. However, it can stipulate that no cyber security is required.

Under the download-and-install model, the developer has a clear obligation to secure the personal data that is processed to handle the purchase. However, only a relatively small amount of personal data is processed to handle the purchase. Furthermore, the consumer regularly shares this data when he makes other purchases on the digital market. In contrast, the obligation to ensure the cyber security of the software is not as strong, even though a security flaw in the software could give access to the processed sensitive personal data or other information that is stored on the hardware of the consumer. This could be counterintuitive for many consumers. To the extent that they care about cyber security, their primary concern should be the security of the software itself.

Furthermore, even under the cloud-based model, the security obligations of the GDPR and the NIS Directive only cover the personal data that is processed by the developer and its network and information systems. They do not apply to the cyber security of the third-party cloud client, notwithstanding that this client can create security risks.[91]

7.2. Business to Business: Digital Content or Processing Operations

The GDPR applies to all parties that process personal data. A data subject can assess his right to material and non-material damages from both the controller and the processor. In contrast, the proposed Digital Content Directive only applies if the content is supplied to a consumer. Only this consumer can claim compensation. Furthermore, the Services Directive does not create cyber security obligations (Sections 3, 5.2, and 5.3).

In order to avoid cyber security obligations and liability, a provider of services on the digital market has an incentive to refrain from processing personal data. Instead, it is stimulated to only supply the digital content that allows its clients to process the personal data themselves. Under this model, it is not bound by

91 Section 4.3. The software itself is not personal data. Furthermore, it is no 'device' that is part of a network and information system'.

any European security obligations. However, national law could still impose duties of care.[92]

If the service involves processing operations, the provider might charge a higher price to offset the risk of liability pursuant to the GDPR. This could cause controllers to internalise their processing operations.

7.3. Goods with Embedded Information Technology or Software and Hardware

A wide range of physical objects use embedded information technology that can be connected to the internet. These types of goods include mobile phones, smart watches, cars, televisions, and other objects that are part of the 'internet of things'. The actors that sell these goods on the digital market are bound by the conformity obligations of the Sales Directive and the proposed Online Sales Directive (Section 5.1). They are not bound by the current proposal for the Digital Content Directive (Section 5.3).

With the exception of the duties that are imposed by the Radio Equipment Directive (Section 5.1), the actors can avoid the cyber security obligations by not offering physical objects. Instead, they could decide to only sell software for existing goods. Alternatively, they can sell the physical object and the accompanying software separately. Under this system, the cyber security of the software is only governed by the non-binding conformity requirements of the proposed Digital Content Directive. These requirements can be avoided altogether by providing the software free of charge. The seller can recoup at least a part of the lost profit by charging a higher price for the tangible goods. Alternatively, the seller can monetise the software by *passively* collecting personal data from the consumer. Although the data will need to be processed securely, no cyber security obligations are imposed by the proposed Digital Content Directive.

Furthermore, the actors could avoid the cyber security obligations by not 'selling' the goods. The Sales Directive does not define 'sale'. However, the proposed Online Sales Directive only applies to 'sale contracts' under which the seller transfers the ownership of the goods.[93] If the consumer rents the physical objects with embedded digital content, it is not protected by either the Sales Directive, the proposed Online Sales Directive, or the current proposal for the Digital Content Directive.[94]

92 Cf. P. Wolters, note 16, 170-171; Section 6.
93 Online Sales Directive, note 7, Article 1(1), 2(a). Cf. Sales Directive, note 55, Article 1(1).
94 Cf. E. Gebhardt and A. Voss, note 79, 41.

7.4. Marketplaces, Search Engines or Other Types of Online Platforms

Several types of online platforms can avoid cyber security obligations by altering the nature of their services. First, only websites that function as the final destination for the conclusion of contracts are online marketplaces in the sense of the NIS Directive (Section 4.3). Recital 15 excludes price comparison websites that redirect the user to the preferred trader to make the purchase. Furthermore, Article 4 (17) of the NIS Directive defines an online marketplace as a service that allows consumers and/or traders to conclude online sales or service contracts with traders. This definition implicitly assumes that the marketplace is a different entity from the trader. Similarly, the European Commission distinguishes resellers from online marketplaces.[95]

Marketplaces can avoid the obligations of the NIS Directive with two strategies. First, they can reduce the level of their service by only redirecting consumers to other websites where the contract can be concluded. Alternatively, they can increase their involvement by purchasing the goods and services themselves and reselling them to the consumer. If they are sufficiently big,[96] these kinds of services can be just as important as online marketplaces that are governed by the NIS Directive.[97]

Similarly, search engines that are limited to the content of a specific website are not covered by the NIS Directive. The definition of 'online search engine' in the NIS Directive is limited to services that search to, 'in principle', all websites or all websites in a particular language. It does not cover search services that are limited to the content of a specific website.[98] However, even services that are limited to one or several specific websites could become important to the functioning of the digital market if the selected websites are important enough. For example, a search engine that is limited to a few dominant online marketplaces could play an important economic role.

95 Commission, Online Platforms, note 29, 3, 7, 16-17. Cf. A. Hagiu and J. Wright, 'Marketplace or Reseller', (2015) 61 Management Science, 184.

96 Cf. Commission, Online Platforms, note 29, 4-5.

97 For example, there does not seem to be a clear reason why a service like Trivago (price comparison) cannot be as important as Booking (marketplace). Furthermore, a company can be both a reseller and a marketplace (e.g. Amazon).

98 NIS Directive, note 6, Article 4(18), recital 16. Cf. Commission, Online Platforms, note 29, 27, distinguishing between 'General search' and 'Vertical search'.

7.5. Strategic Behaviour and Arbitrary Distinctions Matter

The previous subsections show that an actor can influence the existence and scope of cyber security obligations by altering the nature of the goods and services provided. This is undesirable for two reasons.

First, cyber security obligations are necessary to foster the trust of consumers (Section 1). They should be able to confidently use the digital products and services that facilitate and are offered on the digital market. However, this trust cannot exist if the actors on the Digital Single Market are able to avoid their security obligations. Under the European framework, the applicability and scope of the security obligations depends on technical and legal distinctions. Realistically, consumers are not able to judge whether an actor on the digital market is obliged to ensure cyber security. In consequence, they cannot judge whether they are protected by security obligations.

Secondly, the legal distinctions stimulate the actors to alter the nature of their goods and services. These incentives could but do not necessarily lead to a more accessible, secure or efficient online market. For example, although cloud computing services create new risks, it can also generate sizable economic benefits (Sections 4.3 and 7.1). Similarly, both the internalisation and externalisation of processing operations can have economic and security costs and benefits (Section 7.2). Next, although the detachment of the digital content from the physical goods could make it easier for new developers to enter the software market, it can also reduce the competition on the hardware market. Similarly, a consumer might or might not be happy to rent, instead of buy, the digital content (Section 7.3). Likewise, price comparison websites could facilitate better access to online sellers than marketplaces. However, they also force each individual seller to operate its own web shop (Section 7.4). In each of these situations, the choice for a particular model should not be based on arbitrary legal distinctions. It should be based on considerations of quality, efficiency, and security.

The gaps that are created by the arbitrary distinctions can be reduced by the development of the national cyber security duties and an extensive interpretation of the European obligations by national and European courts. Furthermore, the incentives that are created by the distinctions can, and in many cases, will be outweighed by more important considerations. However, the development of more encompassing security obligations will take time and the legal incentives may still change the nature of the goods and services in individual cases. In a

marketplace with the potential of the Digital Single Market (Section 1), even marginal problems will affect many individual consumers.

8. Conclusion

This Chapter answers the following question: to what extent does the Digital Single Market impose consistent private law cyber security obligations on the providers of goods and services? Although the European Union has adopted and proposed many legal instruments (Sections 3 through 5), the piecemeal approach has not created consistent security obligations. If the European Union is truly committed to the creation of a level playing field with a high level of cyber security, it should adopt a unified approach with a harmonised cyber security obligation. This conclusion presents a standard that this obligation should obtain. It is based on four aspects that limit the effectiveness of the current framework: legal basis, protected interest, manipulability, and covered activity.

First, the obligation should be imposed by a regulation. In the current framework, the GDPR is the only instrument that creates a directly applicable obligation. The other duties are created by directives. Differences in the application and implementation could lead to different levels of protection (Sections 3 and 6).

Second, the obligation should not be limited to the protection of certain interests. In the current framework, the GDPR applies whenever an actor processes personal data (Section 3). However, the protection of personal data is just one of the objectives of cyber security (Section 2). In many instances, the protection of other interests might be of more value to the consumer (Section 7.1). In contrast, the Product Liability Directive and the Radio Equipment Directive are primarily aimed at the protection of property and the health and safety of persons (Section 5.1).

Third, it should not be possible to manipulate the requirements of the harmonised cyber security obligation. In the current framework, even the 'objective' conformity requirements that are imposed on the suppliers of information technology can be manipulated by relatively vague criteria such as the contract, the fitness for a particular purpose and the expectation of the consumers. Furthermore, the requirements of the current proposal for the Digital Content Directive are not mandatory (Sections 5.1, 5.3, and 7.1). In contrast, the obligation to implement appropriate technical and organisational security measures cannot be avoided as easily. Although the 'appropriateness' of a security measure depends on the circumstances of the case, such as the risks that are associated with a particular product or service,[99] it does not depend on the vague criteria that affect the conformity requirements.

Finally, the obligation should apply to all actors on the digital market. It should not depend on arbitrary distinctions between certain activities, contracts, goods, and services.[100] The obligations of the current framework can often be avoided by altering the nature of the provided goods or services (Section 7).

The European Union can create a level playing field with a high level of cyber security by obliging all suppliers of goods and services on the digital market to take appropriate technical and organisational security measures. Although this obligation may not be feasible in the short term, it provides a clear standard to strive for.

99 E.g. P. Wolters, note 16, 177.
100 Cf. Commission, Online Platforms and the Digital Single Market, note 37, 7.

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