



ONLINE PLATFORMS AND THE EU DIGITAL SINGLE MARKET

**A RESPONSE TO THE CALL FOR EVIDENCE BY THE HOUSE OF
LORD'S INTERNAL MARKET SUB-COMMITTEE**

A co-production of the friends of e-Conomics

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Date:	23-11-2015



@ e-Conomics we have a passion for researching the dynamics of competition in digital and telecom markets.

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1. INTRODUCTION

1.1. THE FRIENDS OF E-ECONOMICS

e-Economics (www.e-economics.eu) is founded in 2015. It is an independent consultancy and research network that focusses on digital and telecom related policy studies. e-Economics finds itself surrounded by a group of companies, scholars and professionals that are all loosely associated and to which we refer to as *The Friends of e-Economics*. The Friends occasionally work together on commercial basis as well as on pro-bono basis.

This document is a pro-bono co-production of *The Friends of e-Economics* responding to a request by the House of Lords to contribute to the consultation on 'Online Platforms and the EU Digital Single Market'. e-Economics has circulated the House's call for evidence among a selection of its friends, asking for individual contributions to be merged into a single document. The document that lays before you is the result of this collaborative effort.

The authors of this contribution also worked together on a relevant study for the European Parliament that was published in July 2015: *The Challenges for Competition Policy in the Digitalised Economy*¹. Some sections of this report are based on that study and complemented with insights from other work in which the individual authors have been involved over the past years.

1.2. THE CONTRIBUTIONS IN THIS REPORT

Sections 2.1 and 2.2 (on defining digital platforms and on how digital business models compete) have been written by Nicolai van Gorp (e-Economics) with guidance of Lapo Filistrucchi (University of Tilburg and University of Florence).

Section 2.3 (on platforms as part of the DSM strategy) is authored by Pierre Larouche (University of Tilburg and CERRE) under the review of Nicolai van Gorp.

Chapter 3 (on competition and dominance) is authored by Olga Batura (University of Bremen) under the review of Nicolai van Gorp.

Chapter 4 (on the sharing economy)) is written by Pierre Larouche

Chapter 5 (on current regulation and possible interventions) is co-authored by Pierre Larouche and Nicolai van Gorp

¹ [http://www.europarl.europa.eu/RegData/etudes/STUD/2015/542235/IPOL_STU\(2015\)542235_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/STUD/2015/542235/IPOL_STU(2015)542235_EN.pdf)

2. WHAT ARE ONLINE PLATFORMS?

2.1. DEFINING ONLINE PLATFORMS

This section answers to question 1: Do you agree with the Commission's definition of online platforms? What are the key common features of online platforms and how they operate? What are the main types of online platform? Are there significant differences between them?

It is difficult to provide a comprehensive definition of online platforms that captures all the different characteristics of the digital business models that we see today. At the same time it is relevant for policy makers to capture all these different characteristics in their analyses, because each of these may challenge a particular public interest.

Rather than focussing on defining digital platforms, we follow a recent publication of the European Parliament² and a soon to be published report for the Dutch Ministry of Economic Affairs³ by suggesting a broader case-by-case approach to defining **digital business models**. A characteristic of digital business models is that they are based on digital platforms, but each business model may make different choices in how it operates that platform. This strategic choice is based on if and how the business model seeks to exploit the direct or indirect network effects. This choice is made simultaneously with other strategic choices related to other characteristics of the business model.

2.1.1. OPERATING A DIGITAL PLATFORM

Ecorys provides a basic definition for online platforms in a study for the European Parliament⁴. Here a digital or online platform is defined as a (technological) basis for delivering or aggregating services/content (in digital format).

Like most other ongoing definitions of digital platforms (including the Commission's), the Ecorys study extends this basic definition with the ability of a digital platform to **mediate** between providers and users of content/services. In other words, a digital platform *is* or *can be* operated as a two- or **multi-sided platform**, but the operator of the platform may choose not to do so. The choice to operate a platform as multi-sided platform is a strategic one that aims to generate and incorporate **indirect network effects**. Indirect network effects make that a platform becomes more attractive for the users on one side of the platform (such as consumers) if the number of users on the other side of the platforms (such as service/content providers) grows. E.g. eBay becomes interesting for retailers if more consumers shop on the platform, and it becomes more interesting for consumers to shop on the platform if more retailers offer their products on eBay.

The operator of a digital platform (both one-sided and multi-sided) may also facilitate **information exchange** between end-users on one side of the platform (like IMDB's user ratings for movies),

² Van Gorp, N and O. Batura (2015), 'Challenges of competition policy in a digitalised economy', study performed by Ecorys Nederland and commissioned by the European Parliament, IP/A/ECON/2014-12.

³ TNO, Ecorys, and IViR (2015), 'Digital Platforms: an analysis framework for identifying and evaluating policy options', study for the Dutch Ministry of Economic Affairs,

⁴ Van Gorp, N and O. Batura (2015).

or even allow them to directly **socially interact** with each other (like WhatsApp). Also this is a strategic choice with which the operator of the platform aims to generate and incorporate **direct network effects**. A direct network effect makes a platform more attractive for an end-user on one side of the platform if the total number of end-users on that side of the platform grows. An operator may also choose to operate its platform in such a way that it creates and incorporates both direct and indirect network effects (like Facebook).

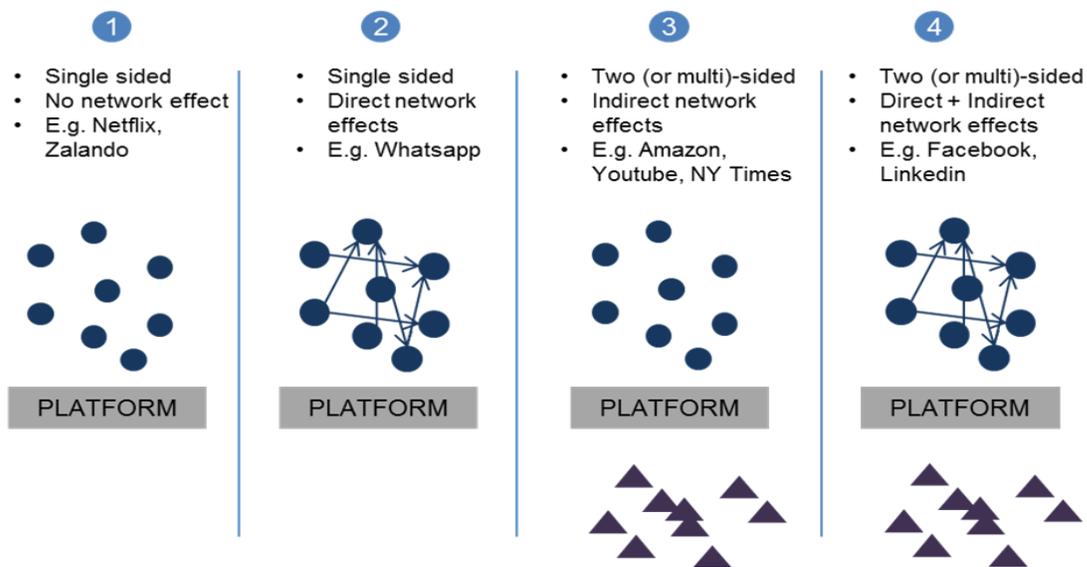
It follows that a digital platform is a (technological) basis for delivering or aggregating digital services/content, which can be operated as a multi-sided platform and which can facilitate information exchange between or social interaction among end-users.

FOUR MODELS TO OPERATE A DIGITAL PLATFORM

From the previous it follows that there are four basic models for operating a digital platform:

- 1) One-sided without network effects
- 2) One-sided with direct network effects
- 3) Two-sided with indirect network effects; and
- 4) Two-sided with indirect and direct network effects.

The figure below illustrates these different business models (courtesy of Ecorys Nederland).



Courtesy of Ecorys Nederland

Business models may change over time and so does the way in which a platform is operated. Netflix is currently acting as a reseller of content and is running a business model of type 1, but it may allow its users to interact (become a type 2) or open its platform for advertisers (become a type 3) or both (type 4).

2.1.2. OTHER CHARACTERISTICS OF DIGITAL BUSINESS MODELS

REVENUE MODELS

The operator of a platform has to choose for a particular revenue model. There are basically four types of revenue models⁵:

- (a) **Direct payment** – the platform charges users for its service (e.g. Netflix). It either charges end-users directly itself or via an intermediate such as the Internet Service Provider (ISP).
- (b) **Advertisement model** – consumers indirectly provide revenues by being exposed to advertising (e.g. Google and Facebook).
- (c) **Access model** – the platform charges app and content developers for selling their product or service to users and/or for having access to end-user data.
- (d) **Acquisition model** – platforms aiming to create future value for themselves or for other businesses by developing platform technology and by amassing users on the platform without having figured out a business model that generates a sustainable revenue stream.

NETWORKS EFFECTS, DATA, AND ECONOMIES OF SCALE AND SCOPE

Direct and indirect network effects are very important for platform based business models because these give rise to market concentration and potentially a ‘winner-take-all-effect’. Other features that may be of strategic importance are scale economies, scope economies, and the use of personal data.

The difference between network effects and scale economies is not always clear. While Netflix’ business model is sometimes said not to exploit network effects, it does make use of its scale advantage while negotiating over broadcasting rights. Strictly speaking, this can be seen as indirect network effects, but then a supermarket can be said to exploit indirect network effects as well⁶.

Scope economies are very important in business models that run on mining and processing of (big) data, including personal data. The more services/platforms are offered by a single company, the more data can be mined by that company⁷. Subsequently, this company can use the processed data to increase the user experience of its services, it can also choose to use the data for offering targeted advertisement campaigns across its service platforms. Scope economies can also be realised by creating a platform on which apps or platforms from others can thrive (examples of such platform for platforms are the operating system, app store, or web browser).

2.2. DESCRIBING HOW DIGITAL MARKETS FUNCTION

This section responds to the question ‘What is the Influence of platforms on the online environment and the experience of those using them?’. This question contains a circular reasoning because the online environment is made of digital platforms. As such we interpret the

⁵ The first three types are mentioned by Van Gorp and Batura (2015), with reference to Valletti et al (2015). The fourth business model is introduced by a report from TNO, Ecorys, and IViR (2015) for the Dutch Ministry of Economic Affairs.

⁶ The more end-users subscribe to Netflix (or the more people shop with Marks&Spencer), the more attractive the platform (shop) becomes for upstream suppliers (like copyright owners or food producers) for distributing their content (products). This enhances the buying power of Netflix (Marks&Spencer) while negotiating over broadcasting rights (wholesale prices). Similarly, the more content (products) Netflix (Marks&Spencer) can offer, the more attractive the platform (shop) becomes for end-users.

⁷ Figuratively speaking: the more veins their mine has.

question as *how do digital market players compete and how does that affect the functioning of digital markets?*

Since data is an important ingredient for the competitiveness of many digital business models we also touch upon question 9 of the call for evidence: What role do data play in the business model of online platforms? How are data gathered, stored and used by online platforms and what control and access do consumers have to data concerning them?

MULTIPLE ROUTES TO REACH END-USERS

In the digital economy a platform is a basis for aggregating services and/or content. One of the first examples of a digital platform that comes to mind is the Operating System (e.g. iOS, Windows, or Android) because it provides a basis for developing applications. Another platform is the physical access network of ISPs. Moreover, app stores are platforms that aggregate and mediate, as well as applications (such as the web browser), websites, social networks, and games. The value web can be described as a complex structure of platforms stacked on each other allowing for multiple routes to reach end-users⁸. In a way, one can say that the value web is characterised with many wormholes that allow the end-user to seamlessly move from one environment/platform into the other. In this environment it is difficult to exclude competitors.

WINNER-TAKE-ALL

At the same time, the digital environment is characterised by network effects that lead to a digital market's tendency to tip into a winner-takes-all outcome. It follows that, irrespective of the business model used, many online business models depend on attracting the attention of end-users. They compete with each other for an audience. Entrants typically follow a strategy of 'grow first, then see what revenue model to adopt'. Price does not always appear as clearly in the marketing mix of online business models because it is not always profitable to charge a (direct) price to end-users. There is often more to be gained from selling access to the audience to advertisers or retailers.

STRATEGIC ROLE OF DATA

As stated above, a platform can be seen as a 'data mine' from which the digital company is excavating data for internal and/or external use. Internal usage refers to using the data to optimise the end-users experience of using the platforms. External usage refers to using the data in support of the company's revenue model; e.g. by selling the data to third parties or by using the data to facilitate targeted advertisement campaigns.

The ability to compete for attention increases when a company has multiple platforms in different areas and creates synergies by linking platforms through user data. By combining user-data from multiple platforms, a multi-platform operator can optimise the experience for both end-users and advertisers across all platforms⁹. At the same time, each platform can be regarded as an

⁸ For example, Samsung has put a software layer on top of the Android system on which its TV's are running. This puts Google's app store out of reach of consumers with a Samsung TV (they have to use Samsung's app store). By plugging Google's Chromecast in the USB drive of the Samsung TV, the end-user can 'return' to Google's environment. Another example is the PlayStation app (available in the app stores of Google and Apple) that allows users to enter the Sony PlayStation environment with their smartphone or tablet.

⁹ Consumers using various services from only one company allow this company to develop detailed user profiles and use these to optimise the experience for end-users. At the same time, advertisers are offered a one-stop-shop that

additional vein in the company's data mine. As such, the operation of multiple interlinked platforms creates a multiplier effect for the operator of those platforms as well as for end-users on all sides of the platform.

Because of this multiplier effect there is a risk that digital platform operators can make themselves indispensable for both end-users as well as advertiser/retailers and place themselves in a gatekeeper position.

ROLE OF INNOVATION

While gatekeeper positions easily translate into market power allowing gatekeepers to generate high profits, these high profits create incentives for others to enter the market and to contest the strong market positions. Market entry has to be based on innovative ideas because once the market has tipped, entry on the basis of copying the incumbent's business model is unlikely to be successful. Entrants seek opportunities to differentiate by responding to the heterogeneity of consumer preferences and they develop business models that aim to disrupt existing markets¹⁰. Moreover, the challengers have an increasing variety of ways to reach end-users which makes it easier for them to bypass gatekeeper positions.

We recognise that, while it is not difficult to enter the market, the challenge is to survive and to grow as many initiatives will fail. However, among these potentially unsuccessful initiatives, there may be a successful disruptive innovator¹¹ who in the future will threaten today's business models. The threat of innovators disrupting existing markets is greater in digital markets than in other market because of Moore's law¹². This threat drives all digital companies, small and large, to prepare for the unexpected through constant innovation in all possible areas: new techniques, new products, new sales channels, new customers, etc., including new combinations of the items mentioned before. By doing so, digital companies embrace former Intel CEO Andrew Grove's management motto '*Only the paranoid survive*'¹³. As both incumbents and entrants constantly innovate, the boundaries of the market are constantly redefined.

It follows that the risk of being stuck with uncontested monopolies is much lower in the digital economy (compared to the physical economy); and when this happens, it will not last as long as in the physical economy.

allows for targeted ad campaigns to specific end-users and reach those end-users independent of what kind of service/platform they use.

¹⁰ Examples are the introduction of the web browser, the smartphone and the App-stores that led to new business models successfully contesting Microsoft's strong market position.

¹¹ '*Disruptive innovation*', a term of art coined by Clayton Christensen, describes a process by which a product or service takes root initially in simple applications at the bottom of a market and then relentlessly moves up market, eventually displacing established competitors' <http://www.claytonchristensen.com/key-concepts/>.

¹² Which is the observation that the computing power of processors doubles approximately every two years. This means that if Google would fail to innovate, its search engine will easily be contested within a few years by an alternative search engine with an inferior algorithm, but running on hardware with double the computing power.

¹³ Grove (1996)

2.3. PLATFORMS AS PART OF THE DIGITAL SINGLE MARKET STRATEGY

Question 6 asks whether the European Commission right to be concerned about online platforms, and whether other initiatives in the Digital Single Market Strategy will have a positive or negative impact on online platforms. The first part of the question is answered in greater detail below under Question 15. As for the second part of the question, there is a flurry of policy initiatives at EU level that can potentially impact online platforms. We comment on a selection of these initiatives below.

2.3.1. DATA PROTECTION

The longest-standing relevant policy initiative involves a thorough reform of EU data protection legislation, whereby the current Data Protection Directive would be replaced by a General Data Protection Regulation (GDPR). The initial Commission proposal was tabled in 2012, and it went through a first reading at the European Parliament in 2014. The Council did reach agreement on a general approach in June 2015, and now the three institutions are engaging in a trilogue.

This policy initiative will have an impact on online platforms, given that most of them collect and process significant, even massive, amounts of personal data within the meaning of EU law. The GDPR will have both positive and negative impacts on online platforms. On the positive side, it seeks to remove divergences between national data protection laws by unifying them in an EU regulation, and it introduces some measure of home-country control. On the negative side, the ongoing negotiations have turned the GDPR into a very complex text, which could leave Member States with much leeway when it is adopted, and thus perpetuate the current fragmentation across Member States. Furthermore, many commentators think that some of the cornerstones of the GDPR – including the purpose limitation principle, whereby data can only be processed for one or more legitimate purposes declared to the user when it was collected – are not suited to innovative services based on advanced data analytics (Big Data).

2.3.2. REVIEW OF THE EU REGULATORY FRAMEWORK FOR ELECTRONIC COMMUNICATIONS

The review of the EU regulatory framework for electronic communications could also have an impact on online platforms, given that, among other issues on the table, the scope of application of the regulatory framework could be modified. There are concerns that the asymmetric treatment of telecom service providers and online communication platforms by the EU regulatory framework affects the level playing field between these players.

A logical rule of thumb is that the same services should be subjected to the same rules. A first (and most logical) option would then be to limit the scope of the regulatory framework to electronic communications networks only (i.e. the construction and operation of physical infrastructure) and not affect the communication services provided over these networks, whether they are provided by telecom operators or online platforms. This would also give electronic communications providers more freedom to develop alternative business models or even start offering their own online platforms (whereas now there is uncertainty about whether the latter offerings would fall within the definition of electronic communications services).

If the first options would leave too many public interests unprotected (i.e. many objectives of the regulatory framework would not be realised when scoping down the framework), a second option may be to extend the scope of the framework to cover online platforms as well, the rationale for

that option (beyond the level playing field argument) is not obvious at first sight¹⁴ and might impose a disproportionate burden on online players. In that case the third option may be preferred which is doing nothing and accepting that telecom providers may be handicapped by the regulatory framework. In that case, the Commission needs to weigh the benefits of preserving particular public interests against the costs of imposing a handicap on telecom operators. These costs may be zero if, due to legacy reasons, telco's have already been put at a disadvantage. The level playing field issue seems like a straightforward issue, but it is not. One first needs to identify the players in the field (i.e. establish who is competing with who) and to understand how the game is played (i.e. understand the mechanisms behind the competitive process), before amending the rules with a chance of making the game more boring, rather than more attractive.

2.3.3. REVIEW OF EU AUDIO-VISUAL MEDIA SERVICES REGULATION

The Commission is also conducting a review of EU audiovisual media services regulation. Some online platforms fall under the scope of that regulation, to the extent that they offer audiovisual media services, typically non-linear (on-demand) services. That review is intended to be thorough, in the sense that the Commission is going back to the fundamentals of media regulation (why do we regulate). Indeed the current Audiovisual Media Services Directive (Directive 2010/30) has proven ineffective. Relevant issues include the promotion of quality European content, advertising restrictions and the protection of minors.

2.3.4. PRIORITY ICT STANDARDS PLAN

The Commission is consulting on a Priority ICT Standards Plan, which could also affect the situation of online platforms. EU standardization policy has traditionally entertained a positive bias towards standardization, which is not always entirely warranted. As regards online platforms, standardization can of course bring benefits – in the form of interoperability, data portability, etc. – but it can also influence the course of innovation and even – in the worse-case scenarios – provide adverse incentives to innovative firms that would have preferred to bring their solutions to market alone, outside of any standardization effort.

2.3.5. E-COMMERCE INQUIRY

Finally, in the course of applying competition law, the Commission is also conducting a sector inquiry into e-commerce, in addition to its regular case-handling activities.

Institutional dynamics create the risk that the multiple initiatives described above, in combination with the inquiry into online platforms, will lead to inconsistencies.

¹⁴ It might be that horizontal regulation currently applying to platforms is not effective, but then one may need to revise those horizontal rules (the telecom specific rules may form a reference point for the revised horizontal rules). It might also be that the reasons for sector specific consumer protection may possibly also be valid for platforms. related to both arguments, one needs to consider that many of the telecom rules are designed to correct for market failures arising in the competition between telecom operators within the telecom ecosystem and that these market failures may play out very differently in the competition between different ecosystems (i.e. platforms, of which the telecom network is one).

3. COMPETITION AND DOMINANCE¹⁵

Due to economies of scale and scope, network effects and winner-takes-all outcomes, online platforms tend to grow fast and expand in adjacent and future markets. They tend to become what is perceived as omnipresent and gigantic and one is tempted to label such platforms as 'dominant platforms'. However, dominance is a specific legally and economically defined concept for which size and (omni)presence are not the only metrics for establishing it. What matters is whether a company can behave independently of its competitors, customers and ultimately of consumers. From section 2.2 it is clear that the ability for digital platforms to behave independently (no matter their size) is constrained by the dynamics of the market.

At the same time we do recognise that competition issues may arise for which we have competition law in place to deal with these issues. We are of the view that European Competition law is properly designed to deal with these issues. However we note that the tools used by competition authorities when enforcing competition law are not. Competition authorities encounter a number of challenges when assessing market power and establishing (abuse of) dominance under competition law:

- 1) Traditional instruments for defining relevant markets fall short when it comes to digital markets;
- 2) The role of dynamic competition is not properly integrated in current methodologies used for establishing dominance;
- 3) It becomes increasingly difficult to make a distinction between abusive behaviour from legitimate business strategies.

3.1. DEFINITION OF RELEVANT MARKET

The definition of the relevant market in the case of online platforms is difficult due to the characteristics of digital markets. More specifically, it is not always clear how many markets should be defined; how to deal with markets in which services are zero-priced; how to define a market that has changed overnight? We briefly elaborate on these three issues below.

Depending on the business model, an online platform may be active on several interdependent markets, some of which may escape the ambit of antitrust examination. If platform serves multi-sided markets and one of these markets is a non-transaction one¹⁶, it might be overlooked because there will be no direct transactions between users on such market (free search on Google is funded through advertising, but search users do not interact with each other and they have no direct contact with advertisers). However, the platform operator plays a significant role on markets on both sides (market for online search and market for online advertising in the case

¹⁵ This chapter responds to questions 7 and 8 of the call for evidence:

7. Is there evidence that some online platforms have excessive market power? Do they abuse this power? If so, how does this happen and how does it affect you or others?

8. Online platforms often provide free services to consumers, operate in two- or multisided markets, and can operate in many different markets and across geographic borders. Is European competition law able adequately to address abuse by online platforms? What changes, if any, are required?

¹⁶ By contrast on a transaction market there are direct transaction between users of a one-sided market or between users on both sides of the platform (for example, between buyers and sellers on Amazon)

of Google). Therefore, multiple relevant markets should be defined in the presence of non-transaction markets in order to account for subsidisation of the non-paying side of the platform users.¹⁷

Online platforms may provide zero priced services, in which case a price-focused examination under competition law may also fail to identify a market. The currently used SSNIP test¹⁸ is designed to analyse substitutability of single-priced products in one sided markets. It does not work when the initial price is zero and fails to account for interdependence of prices in multi-sided markets on different sides of online platforms. It also fails where the product price is not a monetary value, but is paid in other forms (personal data for using Google Maps or attention when watching an advert on YouTube before the actual video begins).

In section 2.2 we explained that due the intensity of innovation, existing markets are constantly disrupted and sometimes completely new markets are created. Market borders are constantly re-defined such that it may be difficult to precisely delineate the relevant market. The current approach to competition law analysis always starts from the assumption that the market definition is a given concept that can and must be figured out first, and then forms the background for the rest of the analysis. Rigidly maintaining this approach in the context of digital markets, would require from competition authorities the impossible task to define the relevant markets of tomorrow. However, the dynamics of the market introduce many feedback loops from conduct and performance to market structure. As such, one does not have to start with defining the market, one can also start by identifying the competitors and to analyse their conduct. While thinking out of the box, we consider it possible that such first step suffices for establishing dominance and that the definition of the relevant market becomes redundant. Having said that, we recognise that more research into such approach is necessary.

3.2. DOMINANCE

3.2.1. ESTABLISHMENT OF DOMINANCE

Every undertaking possesses a certain market power. In order to determine whether this power amounts to dominance, evidence needs to show that an undertaking is able “*to prevent effective competition being maintained on the relevant market by affording it the power to behave to an appreciable extent independently of its competitors, customers and ultimately of consumers*”¹⁹. Usually, many indicators that are analysed to this end are of predominantly static nature: market shares, price levels, concentration ratios, etc.²⁰

Static indicators are less reliable for an adequate measurement of market power of online platforms due to the described particularities of digital markets. In order to capture the dynamics

¹⁷ Filistrucchi, L., Geradin, D & Damme, E. van (2012). Identifying Two-Sided Markets. *TILEC Discussion Paper*. No. 2012-008, Tilburg. <http://ssrn.com/abstract=2008661> ; Filistrucchi, L., Geradin, D., Van Damme, E., & Affeldt, P. (2014). Market definition in two-sided markets: theory and practice. *Journal of Competition Law and Economics*, 10(2), 293-339.

¹⁸ The SSNIP (Small but Significant and Non-transitory Increase in Price) test defines the relevant product market analysing substitutability of products. It expands the initially taken single product market to other projects with similar characteristics that consumers switch to in case of a price increase of 5 to 10% on the initial product.

¹⁹ Court of Justice of the EU, case 27/76, United Brands Company and United Brands Continentaal BV v Commission of the European Communities, ECR [1978] 207.

²⁰ See also Communication from the Commission — Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings, OJ C 45, 24.2.2009.

of market development and the specific of business models, more attention should be paid to the following indicators:

- Contestability of markets and entry barriers (identification of competitive constraints)
- Power relations in the value web (bottlenecks and alternative routes to reach end-users)
- Companies' business models (definition of relevant market(s) and identification of competitors)
- Degree of innovation and trends.

3.2.2. ABUSE OF DOMINANCE

Due the winner-takes-all effects, network effect, high degree of innovation and dynamism of online markets, it is difficult to distinguish between legitimate conduct and anticompetitive behaviour of platforms. On the one hand, it is a smart move to buy a start up with an innovative technology that is necessary for own business development.²¹ The perspective to be bought by a digital giant may even spur innovation in the industry. On the other hand, in certain circumstances such purchase may be interpreted as elimination of a competitor.²² In this way, a powerful platform can foreclose future markets and throttle innovation; it would leverage its own market power instead of competing on merits and is likely to prevent others from competing on merits.

By the same token, platforms' behaviour in relation to their customers and consumers is difficult to assess in definite terms. On the one hand, synergies and network effects that arise due usage of personal data and processing of big data lead to innovation and better products. On the other hand, users find themselves locked-in in one platform due to the large switching costs and lack of interoperability. Also suppliers might experience lock-in effects due to the presence of rating systems (for example, an Uber driver would like to move to Lyft and take her profile and rating with her). This, in its turn, may strengthen the market power of the platform by raising entry barriers for competitors and creating bottlenecks within the value web and, therefore, lower welfare benefits for consumers in a long term.

3.3. ONLINE PLATFORMS AND EU COMPETITION LAW

We consider EU competition law to be well-equipped to adequately address potential abuses of dominance by online platforms. The necessary adjustments should be undertaken on the level of enforcement. In particular, due to the high degree of innovation and dynamic links between company behaviour and market structure, a more holistic approach to the analysis of relevant market, market power and potential abuse needs to be adopted. Dynamic indicators should be preferred to the static ones in the course of the antitrust examination. Business models and strategies of companies need to be taken as a starting point of the analysis to provide better insights into interdependences between markets and help to define market boundaries. Stronger cooperation with the industry, experts, sectoral regulators and foreign authorities would enrich

²¹ See, for instance, the list of companies purchased by Google:
https://en.wikipedia.org/wiki/List_of_mergers_and_acquisitions_by_Google .

²² Acquisition of DoubleClick by Google in 2007 was understood along this lines by one of the Commissioners of the US FTC, Pamela Jones Harbour. DoubleClick was the leading provider of ad-serving technology for third parties, while, at the time, Google was developing and beta-testing its own ad-serving solution. By acquiring DoubleClick, Google might have lessened competition on the ad-serving market. See the dissenting statement of the Commissioner in the case FTC File No. 071-0170: <https://www.ftc.gov/public-statements/2007/12/dissenting-statement-commissioner-harbour-matter-googledoubleclick> .

knowledge and experience of competition authorities. In general, a future-oriented approach should be adopted that includes cautious enforcement of competition law and reliance on self-correcting powers of the market.²³

COMPETITION LAW AND DATA ISSUES

Extensive data collection and processing by online platforms raise concerns about privacy and data protection. In the context of competition law (i.e. all its instruments), privacy cannot be adequately protected or in other way regulated²⁴ as well as the issues of ownership of data, data security, standards of data portability and interoperability. These issues require a special regulation.

At the same time, data is an important asset in digital economy and should be considered when analysing potentially anticompetitive behaviour of market players. Besides the already mentioned issues in the context of abuse of dominance, the following should be considered when applying and enforcing competition law:

- Whether data market(s) exist and can be defined for the purpose of competition law (because data is traded²⁵).
- If a definition of data market(s) is possible, whether dominance is possible on such market²⁶.
- In the absence of a market definition, possession of databases and processing of data needs to be taken into account by antitrust examination:
 - Under Art. 101 TFEU, agreement might be concluded for exclusive data collection or to prevent competitors access certain data.
 - Under Art. 102 TFEU, access to data, possession of datasets and/or processing capabilities should be considered when assessing market power.
 - Under the Merger Regulation, opportunity to access certain data, synergies from combination of datasets, improved collection and processing capacities should be taken into account.

²³ See detailed recommendations in Van Gorp, N and O. Batura (2015).

²⁴ This is also a definitive message from the Commission (Facebook/WhatsApp, COMP/M.7217) and the Court of Justice of the EU (Case 238/05, Asnef-Equifax, Servicios de Información sobre Solvencia y Crédito, SL v Asociación de Usuarios de Servicios Bancarios (Ausbanc), ECR[2006] I-11125).

²⁵ As noted by the Commission in the decision on Google/DoubleClick merger, M.4731, certain datasets are available for purchase from a number of actors. With regard to identification of data markets, a pioneer decision was taken by the Bundeskartellamt (German Federal Cartel Office) in the case B9-32-05 of 19.05.2005 – a merger between Bertelsmann AG and InFoScore Management- und Beteiligungs GmbH. The Bundeskartellamt defined as a relevant market a market for addresses and address processing. The Bundeskartellamt was able to establish the aggregate value of this market, which in 2004 reached over 770 million euro:
<http://www.bundeskartellamt.de/SharedDocs/Entscheidung/DE/Entscheidungen/Fusionskontrolle/2005/B9-32-05.html>.

²⁶ In the aforementioned decision on the merger between Bertelsmann AG and InFoScore Management- und Beteiligungs GmbH, the Bundeskartellamt was able to identify the top eight undertakings active on the relevant market for address trade and processing and determine their individual market shares. The merger between Bertelsmann and InFoScore was allowed because their combined market share of approx. 10% was below the market shares of some other undertakings (KG EOS Holding GmbH and Schober with 20% each), and effective competition would not be distorted (among other things, the top eight undertakings had an aggregate market share of approx. 60%):
<http://www.bundeskartellamt.de/SharedDocs/Entscheidung/DE/Entscheidungen/Fusionskontrolle/2005/B9-32-05.html>.

4. THE COLLABORATIVE ECONOMY²⁷

The ‘collaborative economy’ or ‘sharing economy’ is used to refer to new types of activities where an online platform is used to connect small-scale service providers (individuals or local firms) with potential users. Examples include as regards transportation services, Uber, Lyft and other similar firms or as regards accommodation, AirBnB. As these platforms grow, they gain more significance in the overall economic exchange (some individuals become mostly active as Uber drivers or AirBnB hosts, and they rely on the platform for reputation and image) and they begin to compete head-on with traditional providers, such as taxis or hotels.

What the sharing economy does is not unprecedented: it can be seen as a form of disruptive innovation, whereby a new product, coming from a neighbouring market, proceeds to eat into an established market from the low-end upwards and eventually displaces the established suppliers.²⁸ We will use Uber as an example from now on, for the sake of argument. As a starting point, before Uber entry, the legal situation is clear: in most jurisdictions, either one runs a taxi business, in which case one needs a license (to which regulatory conditions are attached), or one is taking a friend along for a ride. In the latter case, no specific regulation applies and no license is required: no one would ever think that offering a ride to a friend constitutes taxi business. Even car-sharing or car-pooling is seen as innocuous. Enter Uber, which offers an improved way to organize ‘taking a friend along for a ride’, by replacing friendship by an Internet-based exchange system. Uber falls in the grey zone between the friendly ride and the taxi business. As it grows, it competes more and more squarely with taxis.

To the extent that the growth of Uber is perceived as a concern, a number of regulatory options exist. The most radical is to ignore any innovative element and any contribution to welfare by Uber and just stamp it out of existence, as has happened in some jurisdictions. This is excessive. A more measured yet formalistic response is to seek to answer the question whether Uber is a taxi business or not, accordingly to current definitions, and subject Uber to applicable regulations. This is not obvious from a legal perspective, since Uber is not really a taxi business in the usual sense, unless one engages in creative interpretation of existing regulations.

The most adequate response is to acknowledge that Uber heralds disruptive innovation not just in local passenger transport, but also in the regulation thereof. It challenges regulators, just like it challenges the taxi business. Going back to the regulatory drawing board, one must ask the fundamental question: why do we regulate taxis? The taxi business is one where most economists support regulation, because of information asymmetries and market power: in most cases, the customer has never seen the driver before, and is unlikely to see him/her ever again, and the customer rarely has the time and ability to shop around for a taxi ride. The customer cannot know if the driver is honest or a fraudster, if the car is safe, if the driver’s price is competitive, etc. These customer protection issues are solved by submitting taxis to very strict regulation, on quality, qualification, etc., often including price regulation. Such solution has the unfortunate side-effect

²⁷ This chapter responds to question 12 of the call for evidence: Can you describe the challenges that the collaborative economy brings? What possible solutions, regulatory or otherwise, do you propose?

²⁸ See the discussion earlier in the text. The disruptive innovation model developed by Christensen does not totally fit the sharing economy, to the extent that the disruptive entry by Uber or AirBnB does not necessarily begin at the lower-end of the market, and there is no outright displacement of the established providers.

of enabling the taxi industry, in certain cases, to capture the regulator to ensure that the regulatory regime is in its favour, via entry restriction or high prices.

On the assumption that the same information asymmetry and market power issues can affect Uber services, the question becomes how to ensure that Uber's service performs comparably, if not better, from public policy perspective. This is where public authorities are challenged, since instead of facing a local taxi business, they are dealing with a global firm that operates differently and can to some extent perform regulatory functions internally. The answer is therefore not to subject Uber to the same regulation as taxis, nor to leave Uber entirely free of scrutiny, but rather to require Uber to certify that its platform can offer assurances that drivers are trustworthy and will not abuse their 'customers'. In the case of Uber, the platform incorporates a rating system for both drivers and passengers, so the task of regulatory authorities can become one of monitoring and auditing, rather than enforcing a more traditional command-and-control regulation. Ultimately, the regulatory review triggered by Uber might even lead to a revision of the regulation of the traditional taxi business, if it turns out that there as well regulatory objectives can be achieved less intrusively or with less risk of capture.

The line of reasoning set out above, using Uber as an example, can be generalized. Innovation, in the sharing economy or elsewhere, precludes compartmentalized lawmaking. The latter occurs where policy debates are led once, then translated and fixed into a regulatory scheme – a set of definitions with prohibitions and obligations attached to them – and these debates are then forgotten forever after. In order for law and regulation to be sustainable in the face of innovation, policy concerns must remain part of the law, so that the law and regulation can be adjusted promptly while keeping focus on the ultimate policy concerns.

5. CURRENT REGULATION AND POSSIBLE INTERVENTIONS

5.1.1. CURRENT REGULATION OF ONLINE PLATFORMS AND THEIR MAIN BARRIERS FOR GROWTH

As always, it would be wrong to think that a new phenomenon – such as online platforms, assuming that they can be defined and analysed as such – takes place in a legal vacuum, just because no law deals with that new phenomenon specifically. Online platforms are subject to generally applicable law, including among others competition law (EU and national), privacy and data protection law and consumer protection law. Accordingly, a number of potential concerns should already be addressed through such generally applicable law.

At the same time, the mere existence of generally applicable law does not guarantee that potential concerns will be solved, since the outcome depends significantly on the quality of law enforcement. That quality is a function not merely of the existence of regulatory authorities and other enforcement mechanisms, but of their operations. The fears expressed in policy debates can often be traced back to the enforcement of the law, and not to its substance. In essence, it is alleged that the authorities in charge of applying generally applicable law – the national competition authorities, data protection or consumer protection authorities – lack resources (time, personnel, money), expertise or jurisdiction to deal with online platforms. Shortage of resources and lack of expertise can to a large extent be solved by committing more public resources to enforcement. Jurisdictional issues, however, can be more complex.

Jurisdictional issues actually cut both ways in the EU. On the one hand, it can be that no authority can claim and effectively exercise jurisdiction over an online platform, because that platform is operating from outside the EU. It is known that the effectiveness of privacy and data protection law, as well as consumer protection law, are affected by that problem; typically, non-EU online platforms escape the purview of regulatory authorities in the EU, unless and until they grow so large as to make it politically unpalatable that they would not submit to the jurisdiction of EU-based authorities. On the other hand, an online platform could also be hampered by too many authorities seeking to exert jurisdiction over it, with the risk of overregulation. This can happen to platforms growing from within the EU, as they expand their operations. Starting from a small and local scale, in one Member State, with the authorities of that Member State policing its activities, EU-based platforms move into other Member States and become subject to the jurisdiction of the authorities in that other Member State.

The answer to that conundrum is known in EU law: home-country control, coupled with jurisdictional rules to ensure that every provider operating within the EU – wherever it comes from – is subject to the jurisdiction of the authorities of one and only one Member States. That system is practised in a number of areas already, such as audiovisual media regulation.²⁹

²⁹ The jurisdictional system of EU audiovisual media regulation has a weak spot in that the providers of non-linear services from outside the EU are not automatically subject to the jurisdiction of one Member State, but that issue is on the table in the ongoing regulatory review of audiovisual media regulation.

Indeed, going into the second part of the question, more than any issue of substantive law, the success or failure of EU policy as regards online platforms will hinge on the ability to craft an adequate enforcement framework, in particular as regards jurisdiction. The current approach to jurisdiction – as reflected in generally applicable laws – can turn to be both too lenient as regards non-EU platforms and overbearing as regards EU-grown platforms.

For online platforms originating in the EU to grow successfully, scalability is key. Just like a start-up in the US can grow within a few months from its local origins to a market of some 300 million potential customers, a UK, German, Estonian or Greek start-up should be able to scale up rapidly to the 500 million potential customers in the EU. Considering the cultural and linguistic barriers that cannot be eliminated, it becomes all the more crucial to ensure that EU-based start-ups are adequately supervised from their very beginnings, and that the relevant Member State authorities can grow with them, without new authorities constantly jumping on the bandwagon.

5.1.2. TRANSPARENCY ABOUT HOW PLATFORMS WORK

There is obviously some benefit, from a public policy perspective, in making online platforms more transparent: they are then easier to monitor, and they can be more easily held accountable. In that respect, as is pointed out in an upcoming CERRE report on privacy and data protection in network industries, EU regulation often relies too heavily on public enforcement mechanisms, with the risk that – as can be observed now and as noted above – public authorities can be overwhelmed by the task. It is advisable to involve private actors more closely in the life of the law – through liability claims, but also through fostering private actors to compete on the basis of offering protection in excess of legal requirements. In order to do so, more transparency will help.

At the same time, it cannot be denied that for many online platforms, success is linked in part to the quality of the algorithms that underpin the operation of the platform. Forcing online platforms to reveal the recipe of their ‘secret sauce’, so to say, can also have an adverse effect on innovation incentives. The fear is that following disclosure, innovation would be channelled around the model of the successful platform, therefore moving away from disruptive innovation towards more sustaining innovation, within the value network of the successful platform. Slowing down disruptive innovation in the digital economy would introduce the risk of uncontested monopolies as we know them from the physical economy.

5.1.3. REGULATION OF ONLINE PLATFORMS

The European discussion on whether the evolution of the digital economy requires a change of policies is currently in a rather awkward phase where the discussion focusses on defining digital platforms. The need to define a digital platform seems to be born from an assumption that once we have defined a digital platform, we will know how to regulate it. However, this is an illusion.

While the economics of multi-sided platforms is key in the functioning of the digital economy, it is not exclusively related to the digital economy. Newspapers and broadcasting stations are examples of multi-sided platforms that have been around for ages and yet the multi-sidedness of these platforms has never really caused public debate. Moreover, digital business models are characterised by a vast number of other characteristics that cause concerns over public interest. Whether or not the business model is based on exploiting platform economics is just one of these characteristics. As we saw above, other characteristics are revenue models, the use of data, and the role for scale and scope economies. And more characteristics can be added: (How) is user-

generated content curated? Does the business create a new market or is it disrupting an existing market for which we already have a vast number of rules in place?

Each of these characteristics may cause risks and opportunities for preserving public interests. A too narrow focus on trying to define a digital platform may blind policy makers for these opportunities and threats.

We urge policy makers to take a broader starting point when analysing the need for policy interventions in the digital economy. Such analysis should start by describing the whole range of characteristics of digital business models and then link these characteristics to potential concerns about public interest. Once you have such a comprehensive overview you can start designing policies that address the sources of these concerns (i.e. the elements of digital business models that cause them) and assess the effectiveness of these policies by analysing the impact on business models. While you are at it, you can include the identification of unintended impacts of interventions on business models and thereby unintended effect on public interests. A soon to be published study for the Dutch Ministry of Economic Affairs (managed by TNO and reviewed by e-Economics) offers a structured analytical framework for such approach.³⁰ The study has recently been presented to the European Council (Brussels, 18-11-2015).

On the assumption that one agrees that existing laws and regulations can to a large extent deal with these concerns, provided enforcement issues are addressed, the main question arising at this juncture is how to deal with pressure to intervene arising in the future. As the recent example of network neutrality shows, when a concern catches the imagination of lawmakers and policymakers, it is difficult to carry out a level-headed analysis of whether any additional intervention is needed, and even more difficult to carry the day if that analysis would conclude that no legislative intervention is needed. Political pressure can prove too high. In the light thereof, is it worth envisaging right now to create an outlet to channel future political pressures, in order to avoid misguided intervention? This could be the best justification for introducing a mechanism where concerns surrounding online platforms are debated and analysed: it would enable a measured and well-grounded discussion if and when online platform give rise to serious concerns. At the same time, there is a risk that, once a regulatory mechanism is introduced, regulation will unavoidably ensue.

5.1.4. ARE THESE ISSUES BEST DEALT WITH AT EU OR MEMBER STATE LEVEL?

This issue is more complex than a simple choice between EU and Member State levels. On the one hand, there are good arguments for each level. Regulation at EU level avoids fragmentation and could foster scalability, as outlined above. Regulation at Member State level can be more finely attuned to local circumstances – which might not be so determinant when it comes to online platforms. It also allows a certain measure of regulatory experimentation, in the face of uncertainty as to the proper regulatory route to be taken. Finally, since proper enforcement is important, the sum total of the resources dedicated to enforcement by the Member States is likely to be greater than what can be made available at EU level.

In practice, a compromise can be reached if – as is customary in EU law – the substance of the law is defined in a unified or harmonized fashion at EU level, and its implementation and

³⁰ TNO, Ecorys and IViR (2015), “Digital Platforms: an analytical framework for identifying and evaluating policy options”, a study for the Dutch Ministry of Economic Affairs

enforcement is left at Member State level. As recommended above, a solid home-country control system is then advisable, in order to avoid overburdening firms through the activities of multiple concurrent enforcement authorities.

6. CONCLUSIONS

The focus of the current debate on trying to define digital platforms is blindsiding policy makers from a variety of other characteristics of digital business models that may just as well lead to opportunities and risks. We plea for a broader focus by taking all the characteristics of digital business models as a starting point for policy analysis. Indeed, it is essential to understand the economics of platforms because it is such an important characteristic of digital business model. In fact, using a wide definition, one can argue that all digital abusiveness models are based on a platform. What matters for public interests is how it is operated and what other characteristics a digital business model has.

The digital economy is dynamic but not operating in a legal vacuum. Many existing rules can be applied to digital business models. Sometimes this may require reinterpretations or adaptations of laws, but often they just need to be enforced. It may be that the strategies and tools used for enforcing these laws need to be changed and sometimes even reinvented (notably in relation to competition law). The dynamics of the digital economy may also disrupt existing markets and simultaneously challenge the (sector specific) rules that govern those markets. Policy makers should not blindly respond by creating rules that contain the disrupting forces. Rather they review the contested rules and focus on the public interests that formed the reasons for why we had these rules in the first place. Only then it can be analysed whether the disrupting forces are a cure or a curse for these public interest and call for less, more, or different rules.

Innovation precludes compartmentalized lawmaking. The latter occurs where policy debates are led once, then translated and fixed into a regulatory scheme – a set of definitions with prohibitions and obligations attached to them – and these debates are then forgotten forever after. In order for law and regulation to be sustainable in the face of innovation, policy concerns must remain part of the law, so that the law and regulation can be adjusted promptly while keeping focus on the ultimate policy concerns.

