

ONLINE PLATFORMS AND HOW TO REGULATE THEM: AN EU OVERVIEW

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Executive summary

The rapid rise of online market places such as Amazon, peer-to-peer platforms like Uber, social networks and other forms of online platforms has characterized the digital transformation of the last decade. These online platforms now play a key role in today's economy and the functioning and governance of the internet. They have brought real benefits for consumers and businesses in the EU by giving them easier access to products and services and facilitating transactions between them. At the same time, their meteoric growth has caused concerns about market dominance and the widening information and power asymmetry between platforms and citizens, businesses and regulators alike. Online platforms, moreover, challenge the regulatory framework of the Single Market. These challenges often culminate in the call for more "platform regulation" at European level.

The aim of this paper is to shed light on these challenges and the European debate on platform regulation. In particular, it seeks to 1.) Provide an overview of existing regulation of online platforms in the Single Market; 2.) Examine current regulatory challenges for the platform economy in the EU; and 3.) Propose guidelines for the future European debate on platform regulation.

Key takeaways:

1. Online platforms in the Single Market are subject to various forms of regulatory governance. Apart from the EU acquis and ex-post intervention by national and European competition authorities and courts, self- and co-regulatory measures feature increasingly prominently.
2. Outdated contractual law, market concentration on some platform markets as well as the increasing use of automated decision-making systems have led to power and information asymmetries between dominant platforms and their users as well as between platforms and their competitors.
3. Existing regulatory challenges should be addressed with two overarching guidelines: 1. Preserve the integrity of the Single Market, as the danger of market fragmentation is already looming large. 2. Establish confidence in a European platform economy, as the current distrust of digital platforms in the EU should not be allowed to turn into a permanent "tech lash".

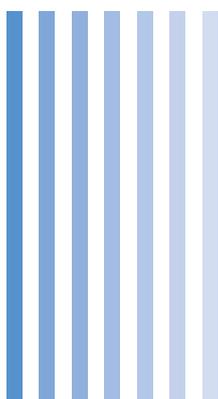


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1. “PLATFORM REGULATION” IN THE EU. A PRIMER

1.1 Examining a catch-all term

The debate on the European digital economy and the Digital Single Market increasingly centres on the activities, business models and market power of online platforms. European heads of states recently warned “social networks and other digital platforms” that they “need to guarantee transparent practices and full protection of citizens’ privacy and personal data” in the light of the Cambridge Analytica scandal.¹ Yet, calls for regulation from a variety of stakeholders reach much further. Labour relations, consumer protection, data protection, taxation, copyright or competition are just a few of the regulatory fields where politicians and civil society actors have called for European “platform regulation” in the last few years.

In the wake of these debates European law makers and regulatory bodies have significantly stepped up their activities regarding online platforms. A new proposal for a Regulation by the Commission targets for example “platform-to-business” relations. It seeks to strengthen the rights of businesses operating in online market places vis-à-vis operators such as Amazon.² Google is the subject of two ongoing investigations by the Commission into whether the company has abused its market power on its different online platforms. It was already fined €2.42 billion in a third case in 2017.³ Platforms and the legal, economic and social implications of their use of machine learning software and algorithms in general also feature prominently in the recently published AI strategy from the Commission.⁴

The reason for the omnipresence of calls to action for “platform regulation” is straightforward. These demands reflect the dominant position online platforms have achieved in the intermediation between supply and demand and thereby the organization of online markets in general in recent years. Online platforms have become a central pillar of business activity and a key facilitator of online economic transactions in the EU, especially in the market for business-to-consumer services: Spearheaded by the “GAFA”⁵ tech giants, platform companies including, for example, Uber, Spotify or Skyscanner intermediated about 60 percent of all privately consumed goods and services within the digital economy across the Single Market in 2015, according to estimates by Copenhagen Economics.⁶ **E-commerce is growing particularly fast**, with turnover growth of about 13 percent per year in the Single Market and sales amounting to around €500 billion in 2017.⁷ Business activity and industries affected by online platforms range from retail to publishing to hotel and taxi industries. The platform model of organizing markets also increasingly plays a role in business-to-business industries such as manufacturing.



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THE EU

1. European Council, [European Council Meeting \(22 March 2018\)](#) Conclusions, 22.03.2018.

2. European Commission, Regulation on promoting fairness and transparency for business users of online intermediation services and online search engines in the Digital Single Market, Leaked proposal document, March 2018.

3. European Commission, [Antitrust: Commission fines Google €2.42 billion for abusing dominance as search engine by giving illegal advantage to own comparison shopping service](#), press release, 27.06.2017.

4. European Commission, [Artificial Intelligence for Europe](#), 25.04.2018.

5. Google, Amazon, Facebook and Apple, the four most valuable companies whose business models rely to a large extent on online platforms.

6. Copenhagen Economics, [Online Intermediaries: Impact on the EU Economy](#), 2015.

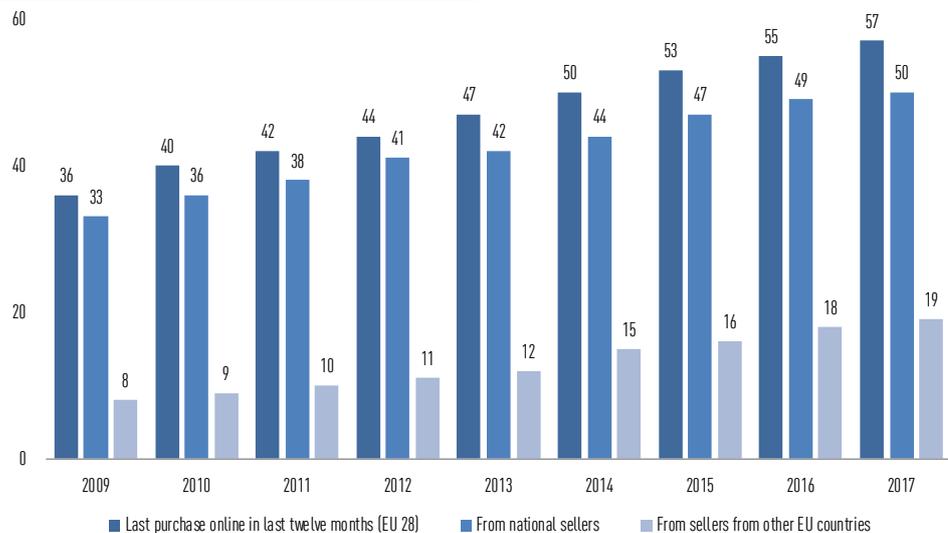
7. Ecommerce Foundation, [European Ecommerce Report 2017](#).

BOX 1 ■ What is a platform?

Even though the term is widely used in public discourse, there is no consensus about the exact definition of the terms “platform” or “platform economy”. One reason for this is that the variety of services intermediated by online platforms has become extensive. Their business models also vary and range from subscription models to advertising to the collection of transaction fees (see box 2). The European Commission has defined a platform as ‘an undertaking operating in two (or multi)-sided markets, which uses the Internet to enable interactions between two or more distinct but interdependent groups of users so as to generate value for at least one of the groups.’⁸ In contrast, the French Conseil National du Numérique (CNNum) defines a platform as ‘a service that provides an intermediary function in the access of information, goods or services that are usually provided by third parties (own translation)’.⁹ In a nutshell and for the purpose of this paper, platforms can be defined as online intermediaries which offer facilitation and transaction services. They bring together supply and demand sides and thereby organize online markets.

For the functioning of the Single Market online intermediaries and platforms have been first and foremost a boon. By lowering barriers to entry, breaking down information asymmetries between buyers and sellers (for example in the taxi or hotel markets) and establishing trust and reputation systems, online intermediaries have brought the Single Market closer to its original idea of facilitating (cross-border) trading of goods and services. Smaller businesses profit in particular from lower entry barriers by gaining easier access to European customers, as almost 85 percent of European households had access to the internet by 2017.¹⁰ **Online platforms have also enabled a better functioning of the Single Market for consumers, for example by creating Europe-wide online comparison websites for goods and services.** That, of course, does not mean that there exists a frictionless Single Market for online cross-border commerce – issues such as different VAT regimes or high legal costs due to different interpretations of consumer protection regulation still hamper its potential.

FIGURE 1 ■ EU citizens buying goods and services online, % of total population



Source: Eurostat

However, the ascent of the platform economy and their central role within the emerging European digital economy has also led to rising concerns about the growing power of internet platforms in the EU and its member states. **While platforms have lowered barriers for consumers and businesses, some have at the same time erected new barriers for potential competitors.** Their position as organizers of online markets has given them substantial clout over

⁸ European Commission, [Regulatory environment for platforms, online intermediaries, data and cloud computing and the collaborative economy](#), Survey document in preparation of a Communication. Date?

⁹ Conseil national du numérique, [Ambition numérique, Pour une politique française européenne de la transition numérique](#), report submitted to the Prime Minister, June 2015.

¹⁰ Eurostat, [Households with Internet Access and with broadband connection EU-28, 2007-2016](#) (as % of all households).

other market participants, especially businesses on the supply side. The increasing societal influence of larger platforms, for example Facebook's or Google's (in)direct shaping of the public discourse, has led to calls for higher regulatory scrutiny of their internal operations, in particular with regard to their use of data and algorithms.

BOX 2 ■ Online platforms operate in a wide range of market activities¹¹

TYPE OF PLATFORM	MAIN BUSINESS MODEL	EXAMPLE
Online marketplaces	Transaction fees	Amazon, eBay, Allegro, Booking.com
Collaborative or 'sharing' economy platforms	Transaction fees	Uber, Airbnb, Taskrabbit, Bla-bla car
Communication platforms	Advertisement, subscription	Skype, WhatsApp
Social networks	Advertisement, subscription	Facebook, LinkedIn, Twitter
Search engines and specialised search tools	Advertisement	Google search, TripAdvisor, Twenga, Yelp, Skyscanner
News aggregators	Advertisement	Google news
Music/ Video sharing platforms	Subscription, advertisement	Deezer, Spotify YouTube, Dailymotion, Netflix, Canal Play, Apple TV
App stores	Transaction fees	Google Play, Apple app store
Payment systems	Transaction fees	PayPal, Apple Pay

The concerns over the power of online platforms raised in the ongoing political debate can be roughly grouped into two categories:

- 1. Competition and market power:** Platforms generate regulatory concerns because of their expanding market power. Many platform markets tend towards domination by one or very few players, thanks to, among other things, strong network effects and economies of scale advantages. Another concern is the way in which platforms are able to leverage their exclusive access to vast amounts of consumer, business and transactional data. These data troves give them a constantly self-reinforcing knowledge edge with regards to market dynamics over competitors and regulators alike.
- 2. Algorithmic discrimination and information asymmetries:** Most platforms heavily rely on automated algorithm-based decision-making to process transactions and data. Automated decision-making systems are efficient and often more impartial than human decision makers. But they can also perpetuate discrimination and deleteriously affect European citizens. Yet, proving such a discriminatory bias can be complicated: The inner logic of automated decision-making systems remains opaque to businesses and individuals operating on a platform. This so-called "algorithmic black box" also complicates regulatory scrutiny.

Apart from both these challenges, there are mounting concerns over how the activities of large online platforms might lead to undesirable external effects. Airbnb has been accused of fostering gentrification processes in popular urban neighbourhoods in cities like Amsterdam; Uber and other on-demand platforms have been criticized for eroding European labour standards; and Facebook has been charged with facilitating the unravelling of the social fabric in Europe.¹² Last, but not least, big online platforms such as Google, Amazon and Facebook and other digital companies are routinely criticized for making extensive use of elaborate strategies to lower

¹¹ Short version of platform typology by the European Commission, [Online Platforms and the Digital Single Market. Opportunities and Challenges for Europe](#). Communication from the European Commission, 25.05.2016.

¹² Julia Carrie Wong, Former [Facebook executive: social media is ripping society apart](#), The Guardian, 12.12.2017.

their tax burden in the Single Market, contributing to the erosion of member states' budgets.¹³ All these issues may merit further discussion but this paper focuses on challenges related to the inner operations of online platforms and not on external effects.

1.2 How platforms are regulated in the Single Market

Given the diversity of business models and the number of policy challenges involved, it is no surprise that "platform regulation" has become a catch-all term. Amidst the many political and economic debates around future regulation, it is important to first recall the regulation and governance set-up to which online platforms are already subject. Just like those of other market participants in the Single Market, platform activities are subject to the EU acquis in areas such as consumer protection, copyright, competition and data protection. Platforms have, for example, to abide by the Consumer Rights Directive. They are also bound by various Directives directly regulating market behaviour. The two most relevant here are the E-Commerce Directive 2000/31/EC and the Services Directive 2006/123/EC. The platform economy is also marked by an increasing degree of self-regulation. Three characteristics of the regulatory framework of online platforms deserve further attention:

1. **Categorization of platforms.** Most online platforms are considered providers of "information society services", under the E-Commerce Directive 2000/31/EC. Information society services are defined as "any service normally provided for remuneration, at a distance, by electronic means and at the individual request of a recipient of services" in Directive 98/34/EC.¹⁴ Since most online platforms offer an intermediation of services by electronic means, they may fall within this categorization, with consequences for their regulation. The categorization and the terms of the Services Directive 2006/123/EC, which states that member states can only regulate certain cross-border services in limited ways, may spare a platform from being liable to national or local sector-specific regulation in the Single Market. Online platform companies therefore seek to escape being defined as providing services in, say, accommodation or taxis specifically but, rather information society services under the E-Commerce Directive. This categorization is however contentious, not least since the actual services intermediated by platforms (transport, housing, delivery) are not usually considered information society services. The degree to which online platforms are involved in delivering the actual service (for example personal transport) might thus determine their future categorization. In 2017, for example, the ECJ ruled that Uber Pop could be classified as a transportation service and member states governments (as well as local authorities) could hence regulate the service locally and according to sector-specific regulation.¹⁵ The court justified its ruling with the argument that Uber was not only providing an intermediation service, but simultaneously also an urban transportation service, which it generally organizes using software tools.¹⁶
2. **Intermediary liability exemption.** Another central aspect for the regulation of many online platforms is the limited liability regime enshrined in E-Commerce Directive 2000/31/EC. Under it, information society services that engage in "mere conduit", "hosting" or "caching" of information (i.e. that act as certain types of intermediators) are exempt from liability. Many platforms are hence non-liable when fraudulent practices occur on their platforms, unless and until they have been noticed of these practices or ordered to take down certain content. Without this limited liability under the Directive, platforms like eBay or Facebook

13. Paul-Jasper Dittrich, Pola Schneemelcher, [Tax Me If You Can. The current debate on taxing digital businesses in the EU](#). Jacques Delors Institut – Berlin, Blog Post, 16.01.2018.

14. [Directive 98/34/EC](#) laying down a procedure for the provision of information in the field of technical standards and regulations and of rules on Information Society Services.

15. Mehreen Khan and Aliya Ram, [ECJ rules Uber can be regulated as taxi company](#), Financial Times, 20.12.2017.

16. Roellen van Neck, ECJ: [Uber renders transport services, not information society services](#), Digital Business Law, 20.12.2017.

would be held liable for any unlawful content uploaded by users (counterfeit goods, child pornography, copyright-infringing content etc.). Retaining this exemption from liability is thus considered vital for the existence of many platform business models. It also lowers barriers to market entry for new platforms. At the same time, it is important to curb the proliferation of, for example, illegal content uploaded to online platforms. This is now mainly done via self-regulatory measures.

3. **Self-regulation.** The European platform economy is characterized by a high degree of self-regulation, in addition to legislation. In its 2016 Communication on Online Platforms, the Commission argued that traditional top-down legislation reaches its limits in the platform economy and that therefore self-regulatory and co-regulatory measures are likely to stay or become even more important for that economy's future governance.¹⁷ What does that mean in practice? In the EU, self-regulation officially refers to 'the possibility for economic operators, the social partners, non-governmental organisations or associations to adopt amongst themselves and for themselves common guidelines at European level (particularly codes of practice or sectoral agreements)'.¹⁸ The Commission has, for example, recently proposed a self-regulatory mechanism to fight fake news.

Via their Terms and Conditions, online platforms create a set of rules intended to govern transactions, ensure the functioning of reputational systems or enforce their code of conduct, for example Facebook's Community Guidelines. These private governance frameworks can be considered as a form of individual, platform-level self-regulation and the term "self-regulation" is indeed used in that way in the current European debate.¹⁹ Perhaps not surprisingly, **the idea of self-regulation as the future main mode of governance of the platform economy is in serious dispute.** Consumer advocates and other civil society actors regularly caution against any gradual shift of legislative and executive authority to private actors. They point to the lack of transparency and accountability resulting from online platforms being allowed to set up their own rules or benchmarking targets without the broader involvement and scrutiny of civil society stakeholders or regulators.

Is the regulatory regime fit to meet the challenges that online platforms currently pose to the rules of the Single Market or does the governance framework described above need an update? The next section examines these questions by reviewing the overall European approach to online platforms and some of the current regulatory challenges.

2. MAPPING THE REGULATORY CHALLENGES

2.1 Guidelines for the debate on platform regulation in the Single Market

Before examining the specific regulatory challenges in individual policy areas, it is important to take one more step back and discuss the overall rationale behind the European approach towards online platforms. The overarching question of the debate on "platform regulation" is whether the novelty of platform business models truly warrants substantial new regulation or "merely" a shift in governance models in the Single Market and, if yes, which specific updates are indeed required.

¹⁷ European Commission, [Online Platforms and the Digital Single Market. Opportunities and Challenges for Europe](#). Communication from the European Commission, 25.05.2016.

¹⁸ European Parliament, Council and the Commission, Interinstitutional Agreement on Better Lawmaking, OJ C 321/01., Official Journal of the European Union, 2003

¹⁹ Michèle Finck, [Digital Co-Regulation: Designing a Supranational Legal Framework for the Platform Economy](#) (June 20, 2017). European Law Review (2018 Forthcoming); LSE Legal Studies Working Paper No. 15/2017

As usual, new regulation in the Single Market has to be evidence-based and well-founded, address market failures or be justified by shared social goals as a whole. This paper argues, however, that new regulation of online platforms and the platform economy should also always be seen as a means to enhance the Single Market. Concretely, the debate on future regulation of the platform economy should be guided by two overarching guidelines:

1. Preserve the integrity and potential of the Single Market
2. Establish trust in an innovative European platform economy

2.1.1 Preserve the integrity and potential of the Single Market

Online platforms have in many ways enabled the Single Market to work more smoothly and efficiently, for example by creating Europe-wide online comparison websites for goods and services. Small businesses like E-commerce traders have many more possibilities to sell across the Single Market thanks to easier transactions via online platforms. Yet this success is put at risk once too many national governments enact national requirements for online platforms. At European level, the Commission has clarified its main goals in any upcoming regulation for online platforms: A “level playing field” for comparable digital services as well as “open and non-discriminatory markets”. By applying such a “light touch” regulation (focus on self-regulatory measures and amending extant regulation on a problem-driven, sectoral basis) the Commission is trying to preserve the integrity of the Single Market while at the same time not overburdening youthful and ambitious European platforms with regulation in order to help them grow in the Single Market.²⁰ Larger member states, such as France and Germany, have been calling on the EU to rein in the perceived power of online platforms and (often US-owned) tech giants.²¹ Some countries have also introduced national platform regulation across the board. The French Law for a Digital Republic of 2016, for example, forces platforms in general to provide more transparent information to consumers on the criteria behind algorithmic decision-making for rankings or referencing.²² However useful an individual piece of legislation may be, the resulting regulatory fragmentation can lead to legal uncertainty and slow down or even hinder market access for newcomers. This is of especial concern for the European platform economy which has often struggled to scale up and harness the opportunities within a unified European market.²³ Preserving the integrity of the Single Market and enhancing its potential for young European companies should thus become a guiding principle for all future approaches to platform regulation.

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THE EUROPEAN PLATFORM ECONOMY HAS OFTEN STRUGGLED TO SCALE UP AND HARNESS THE OPPORTUNITIES WITHIN A UNIFIED EUROPEAN MARKET.

2.1.2 Establish trust in an innovative European platform economy

A second core element should be the question of how to generate and keep the trust of European citizens in the ongoing digital transformation as exemplified by large online platforms. Europeans should be given no sense that the EU is unable to protect them from fraudulent use of their data, non-transparent or even discriminating algorithms and the unchecked market power of large online platforms. Otherwise, they might turn their backs on the EU even further amidst a growing “tech lash”. If the EU on the other hand can prove its worth as a rule-maker and protector of consumers and fundamental rights, European citizens might also become more open to and embrace the possibilities the European platform economy opens up for cross-border exchange and commerce. A recent example for this “Brussels effect” is the General Data Protection Regulation (GDPR) which is rapidly becoming a global standard.

²⁰ European Commission, [Online Platforms and the Digital Single Market. Opportunities and Challenges for Europe](#). Communication from the European Commission, 25.05.2016.

²¹ Duncan Robinson and Alex Barker, [EU to probe popular US sites over data use and search](#), Financial Times, 30.04.2015.

²² Legifrance, [LOI n° 2016-1321 du 7 octobre 2016 pour une République numérique](#), official text (in French).

²³ Paul-Jasper Dittrich, [How to Scale Up in the EU? Creating a Better integrated Single Market for Start-Ups](#), 10.11.2017.

How could the guidelines sketched out above be implemented in practice? The next sections examine these parameters by reviewing three policy areas with relevance to European approaches to platform regulation currently under discussion:

- a) Platform to business relations
- b) Competition, multi-sided markets and data
- c) Algorithmic decision-making and discrimination.

2.2 Platform to business relations

A key characteristic of many platforms is the triangular contractual relationship between platform, supplier and the user/consumer. Transactions take place between all and each of the actors. A user, by signing up to a platform like Airbnb, has to agree to its “General Terms and Conditions”, thereby entering a contractual relationship with the platform. The consumer can then in most cases enter contractual arrangements with other platform users (for example renting out an apartment). The platform facilitates and accompanies these transactions by providing certain payment and insurance services, refund policies and, most importantly, by helping the contracting parties find each other in the first place (intermediation service). Depending on the specific platform model this intermediation or match-making between supply and demand can entail more or less direct involvement by the platform itself. **By setting the General Terms and Conditions a company exerts a powerful role over both sides of the market** as it determines their room for manoeuvre and their rights vis-à-vis each other and vis-à-vis the platform itself.

A triangular relationship

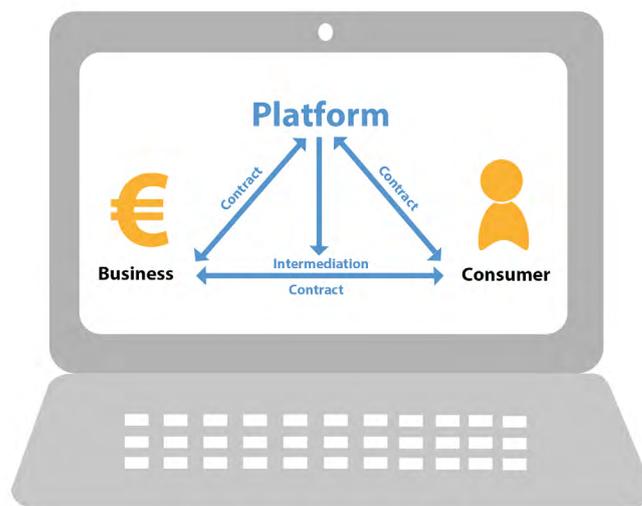


Illustration: Cinthya Nataly Haas-Arana

The triangular relationship of platforms challenges conventional definitions that stem from a logic of traditional industrial supply chains. One can clearly see the mismatch between how traditional regulation and platforms operate in the legal definition of platform actors.²⁴ EU

²⁴ Aneta Wiewiórowska-Domagalska, [Online Platforms: How to Adapt Regulatory Framework to the Digital Age?](#), Briefing for the IMCO Committee of the European Parliament, 24.09.2017.

contractual law is still mainly designed for business-consumer relationships. Since platforms engage various types of users, many of them not classical (individual) consumers but companies/suppliers, concerns have arisen that they do not adequately address the needs of businesses operating on them. Whereas consumers are protected by strong European protective legislation, businesses wield much less clout vis-à-vis online platforms.



OFTEN, ONLINE PLATFORMS NOT ONLY EXERT POWER OVER SUPPLIERS, BUT DISCRIMINATE AGAINST THEM.

Often, online platforms not only exert power over suppliers, but discriminate against them.²⁵ Businesses operating as sellers of goods or suppliers of services for example have an inadequate level of protection against arbitrary de-listing by large platforms, with only complicated and costly options for filing redress requests. There have been repeated cases where platforms have favoured their own goods and services over those offered by suppliers on the platform. This is especially relevant for e-commerce or collaborative or ‘sharing’ economy platforms, which often evolve slowly from facilitating occasional transactions by private entities (individual buyers and sellers on eBay) to governing transactions between private buyers and micro/small enterprises (professional re-sellers on Amazon, professional sub-letters on Airbnb etc.).

What consequences should policy-makers draw from this state of affairs? Platform neutrality, i.e. a rule that strictly forbids platforms from favouring their own services over those of suppliers on their platform, might ultimately have to be enforced by regulation. The EU, with its latest legislative proposals, seems to be moving in this direction. One result of the policy and consultation processes on platform regulation of the last two years is the proposal for a platform-to-business regulation by the Commission, published in April 2018. To establish a “level playing field” it attempts to strengthen individual businesses’ rights vis-à-vis platforms and to prevent unfair trading practices. The proposed regulation covers the non-transparent de-listing of businesses and platforms and denying businesses access to data collected about their transactions on the platform (the “data privilege” of platforms) while increasing the possibilities for collective redress against platform operators.²⁶ It has also identified a lack of transparency on the part of platforms towards businesses operating on them, for example with regards to the ranking of “search results”. Establishing the possibility of collective redress and a dispute settlement mechanism could increase predictability and legal certainty for businesses on platforms. Protecting and strengthening the rights of smaller businesses vis-à-vis large platforms should be welcomed as a measure to strengthen the potential of the Single Market.

2.3 Competition, multi-sided markets and data

Online platforms facilitate contracts between suppliers and users of a certain product or service, thereby usually creating a two- or multisided online market. These markets have well-researched properties.²⁷ From a European competition perspective attention mainly needs to be paid to online platform markets where 1.) Indirect network effects play a significant role and 2.) Platform business models are able to take advantage of large economies of scale and scope that arise from largely intangible, data-driven services and 3) platforms have a unique access to data or are able to leverage data sets from various sources- to offer a service.

1. Indirect network effects. Online-based platforms operating on data-driven multisided markets can take advantage of direct and indirect (across groups) network effects. Direct network effects occur when individual membership of a network gains greater value the greater the number of nodes in that network (for example a telephone network). Indirect network effects occur if more nodes exist across groups (the more suppliers on a network,

²⁵ Friso Bostoen, *Neutrality, fairness or freedom? Principles for platform regulation*. Internet Policy Review, 7(1), 2018.

²⁶ European Commission, *Proposal for a Regulation on promoting fairness and transparency for business users of online intermediation services*, 26.04.2018. (ist das die leaked version von fn2 oben oder eine andere?)

²⁷ For an overview on multisided markets and network effects see for example Paul Belleflamme and Martin Peitz, *Platforms and network effects*. University of Mannheim Working Paper Series, Working Paper 16-14, 09.2016.

the more buyers and vice versa). Indirect network effects often reinforce each other and over time lead to a clustering of users and businesses on one platform and thus strong market concentration.

2. **Economies of scale/ scope.** Given the comparatively low cost of adding additional users and suppliers to a data-driven platform after the initial fixed costs (for example for server space), established online platforms strongly profit from economies of scale advantages. Platforms with an already extended customer base, comprehensive datasets on transactions and user behaviour are also able to vertically integrate and enter new online markets with relative ease. Amazon and Apple are good examples²⁸. That way, they achieve economies of scope.
3. **Data.** Access to large quantities of highly detailed data can be a decisive competitive advantage and a source of market domination for online platforms. One aspect of the asymmetrical distribution of data is that it renders the emergence of competitors more difficult, as they cannot draw on the same deep and diverse data sets (e.g. on consumer preferences) in order to refine their services such as bespoke/individualised offers. The real value of data for online platforms is often derived by combining existing data-sets, for example the consumption pattern in an online shop on the one hand and geo-location data from a different service on the other.



ACCESS TO LARGE QUANTITIES OF HIGHLY DETAILED DATA CAN BE A DECISIVE COMPETITIVE ADVANTAGE AND A SOURCE OF MARKET DOMINATION FOR ONLINE PLATFORMS.

The combined impact of indirect network effects, economies of scale, data-driven vertical integration and economies of scope can and indeed has resulted in market concentration and domination in numerous online platform markets.²⁹ Above all, the power concentrated in the hands of the largest platforms – Google, Amazon, Facebook and to a lesser extent Apple – has led to calls for higher scrutiny or even a break-up of these tech giants. The raw numbers confirm their dominance in many different markets: Facebook and Google are estimated to have captured an 84 percent share of the global online ad revenue market in 2017 (excluding China).³⁰ Google dominates the global search market with a share of 91 percent and, together with Apple, the virtually entire mobile operation systems markets with 99 percent globally.³¹

Market domination is not a competition problem per se. Competition authorities only have to step in if such domination leads to market abuse. Market abuse can have negative outcomes (less choice, higher prices) for consumers, especially if they get locked-in on one platform with no multi-homing possibilities or if switching costs between platforms are high (owing to the absence of data portability and general interoperability between platforms). From a business perspective, it can lead to the suppression of newcomers. Most problematic and prone to abuse is where market concentration results from an asymmetric access to large amounts of personal and transaction data (possibly sourced from the platform's services in other markets). Given such asymmetric data advantages, it can become nigh impossible for newcomers to seriously challenge a dominant market position, unless the challenger has sourced very large amounts of relevant data from other markets.

Ensuring the smooth functioning of online markets should play an essential role in preserving the integrity of the Single Market and improving its potential to deliver a better overall outcome for European citizens. The European Commissioner for Competition, Margrethe Vestager, has stated on multiple occasions that the Commission will use all available tools to prevent the abuse of market power by large online platforms. DG COMP has opened three investigations

28. Amazon, via its AmazonPrime subscription model, offers services (directly and indirectly) spanning from online retail to video and music streaming to e-books, domestic services intermediation or meal delivery.

29. Bertin Martens, *An Economic Policy Perspective on Online Platforms*, report prepared for the Commission by the Institute for Prospective Technological Studies, Digital Economy Working Paper, 05/2016.

30. Matthew Garrahan, *Google and Facebook dominance forecast to rise*, Financial Times, 04.12.2017.

31. Statista, *Global mobile OS market share in sales to end users from 1st quarter 2009 to 2nd quarter 2017*.

into Google in recent years and fined the company €2.42 billion in 2017 for illegally giving an advantage to its own service, Google shopping, on the search engine, essentially violating platform neutrality.³² The most important question at this point is, however, whether the Commission has the (right) tools to combat the abuse of market power at its disposal and which additional regulation could help to detect and counter the abuse of market-dominating positions in individual platform markets.

What to do? Policy-makers should increasingly pay attention to the role of data for individual online platforms and platform markets. With regards to the central competition activities of the Commission (commercial competition, antitrust, state aid, and company mergers) the role of proprietary data as an economic resource is most relevant when assessing company mergers and commercial competition.

1. **The role of data for mergers & acquisitions:** After an acquisition, an online platform is often able to integrate various data-sets (for example transactional or customer data) into its existing business model and thus get an unfair advantage over potential rivals. The primary example here was the 2014 acquisition of WhatsApp for \$19 billion by Facebook, which at the time had neither substantial revenues nor many employees (around 50), but already more than 1 billion active users on its messenger service. By merging contact details from WhatsApp with already existing Facebook profiles on a global scale, the social network was able to get a much more valuable (combined) data-set on its users, enabling better targeted advertising. The acquisition was subject to a competition policy investigation at the time, but the Commission did not object to the deal. In 2017, however, the Commission fined Facebook €110 million for providing misleading information about the WhatsApp purchase (precisely regarding the integration of WhatsApp data into other services of Facebook) but did not rescind its waiver of the acquisition. The WhatsApp case highlights the significance of data for merger control. DG COMP should constantly update their guidelines with regards to market abuse via data dominance. Access to third-party data and the combination of data sets from various sources should come under particular scrutiny. One recent national example for this is the new guidelines for the Federal German competition authority. These have led already to an investigation into Facebook's possible abuse of market power by collecting third-party data on users without their knowledge or consent.³³
2. **GDPR:** The "data portability" right to take user data from one platform to another (for example on social networks), enshrined in the GDPR, which took effect on 26 May 2018, is expected to increase the multi-homing options for users and hence competition. The GDPR and the accompanying e-privacy regulation also make it illegal in many cases to combine consumer data from various platforms without an individual's consent. Policy-makers should give their full backing to the new European data protection regime especially given the legal uncertainty over GDPR's concrete applicability.
3. **Open Data:** Another idea to counter the power of platforms is to force them to share parts of their collected data with the public, for example in developing non-profit local services. There are already numerous examples where Open Data approaches have helped local municipalities improve their services. If online platforms were forced to share relevant data (especially non-personal data, for example on road conditions or popular cycling paths inside cities) with the public, developers could make use of the vast troves of data collected by dominating platforms to create specialized services. That way, the data monopolies of large platforms could be weakened.

³². European Commission, [Timeline of Google Search \(Shopping\) Investigation](#), 30.05.2018.

³³. Bundeskartellamt, "[Gegen Facebook können wir vorgehen](#)", Transcript of an interview with Andreas Mundt, head of the German Bundeskartellamt, 01.01.2018.



THE WHATSAPP CASE HIGHLIGHTS THE SIGNIFICANCE OF DATA FOR MERGER CONTROL.

4. **Interoperability:** Lastly, forcing platforms towards more interoperability could be another way to counter the dominant positions of platforms. Interoperability, e.g. the possibility for users to communicate from Facebook to Telegram directly, would certainly reduce lock-in effects and allow competitors to integrate their services more swiftly with other platform services.

2.4 Algorithmic decision-making and discrimination

A more recent debate among European policy-makers revolves around the social and economic challenges of algorithmic decision-making. While not exclusively platform-related, algorithmic decision-making is crucial for the functioning of the platform economy and directly affects tens of millions of Europeans daily in the Single Market. The different statistical and pattern recognition models (often subsumed under the label “machine learning”) put to use by online platforms power important core functions such as rankings, match-making or fraud detection. Facebook uses self-learning models that constantly and dynamically adapt the news-feed of the users to their predicted information preferences.

In many cases, automated decision-making is harmless and algorithms (essentially problem-solving paths turned into software) in general should not be mythologised as dark and inscrutable forces steering human behaviour.³⁴ However, there are cases where a wrong algorithm-based decision can cause real-world damage to a user, for example if a loan or job application is turned down based on an algorithmic assessment. Many scholars have shown how automatic decision-making systems inadvertently but systematically discriminate against minorities.³⁵ One of the more infamous cases involved the Google image recognition systems, which upon release repeatedly mis-identified black people as gorillas.³⁶ Such errors can occur through wrong training data selection, wrong choice of models, societal biases built into models or self-reinforcing feedback loops. Whatever the nature of the specific problem, it is often complicated to determine from the outside whether an automated decision-making system has an inbuilt bias or not. A good part of the algorithms used by larger platforms are not open source, but proprietary and, as trade secrets are often the most relevant part of the intellectual property of online platforms, their source code is not open to public scrutiny. Online platforms further argue that, if they had to disclose relevant details of their decision-making systems, it would be very easy for scammers and fraudsters to game for example a platform’s reputation system. The results are substantial information asymmetries between online platforms on the one hand and citizens and regulators on the other. In light of these developments, how can European citizens retain their trust in an innovative European platform economy and digital future in general? How can regulators close the information gap between platforms and the rest?

1. **GDPR:** One step in this direction from a consumer perspective is again the General Data Protection Regulation (GDPR). It includes a right to explanation of automated decisions based on machine learning (although its exact meaning is being debated)³⁷ and it also gives consumers and citizens the right to a final human intervention (over a loan, job application etc.) to avoid algorithm-only decision-making.
2. **A European Watchdog agency:** However, the question remains whether these individual rights will be enough to establish trust in automatic decision-making and machine learning within the platform economy. Since the importance of these systems is only going to grow, new ways have to be found to establish trust and hold platforms accountable for the results of their actions. One solution would be a European watchdog agency that helps to

34. Kathrin Passig, [The Black Box is a State of Mind](#), Eurozine, 02.12.2018 (in the future?).

35. Claire Cain Miller, [When Algorithms Discriminate](#), New York Times, 09.07.2015.

36. James Vincent, [Google ‘fixed’ its racist algorithm by removing gorillas from its image-labeling tech](#), The Verge, 12.02.2018.

37. Andrew Burt, [Is there a ‘right to explanation’ for machine learning in the GDPR?](#), International Association of Privacy Professionals, IAPP. Date?

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IN MANY CASES, AUTOMATED DECISION-MAKING IS HARMLESS AND ALGORITHMS IN GENERAL SHOULD NOT BE MYTHOLOGISED AS DARK AND INCRUSTABLE FORCES STEERING HUMAN BEHAVIOUR.

ensure that the specific algorithms used in the EU that bear the danger of discrimination or misuse are constantly vetted and evaluated. Among others, the French CNNum has recently specified such ideas with its proposal for a European Agency for Trust in the Digital Platform Economy.³⁸ This body would closely collaborate with the platforms themselves and have both the technical capabilities to examine algorithms and the political mandate to test automated decision-making systems (for example using reverse engineering techniques such as black box testing) to prevent discrimination.

- 3. Involvement of civil society actors:** Future policy work on algorithms and automated decision-making has to become more inclusive. The Commission should step up its efforts as a public mediator fostering dialogues between consumers, civil society actors and platforms. Current efforts to develop a European code of ethics for the application of algorithms should indeed be stepped up.

CONCLUSION

Online platforms are among the most important drivers of the digital transformation in the Single Market. However, their innovative potential creates new challenges for regulators and society at large. The aim of this paper was to give an overview on some of the most relevant policy areas where online platforms clash with traditional regulation and where new rules might be needed. When it comes to new regulation, two overarching guidelines should be applied: new rules can be justified in order to ensure the integrity and functioning of the Single market and to increase its potential. They should also be aimed at increasing trust of European citizens in a European platform economy.

Concretely, new or updated rules should be created for platform to business relations, competition policy and for the use of algorithmic decision-making. The detailed policy recommendations are outlined in the table below.

How to regulate the European platform economy?		
Policy area	Recommendation	Why?
 Platform to business	<ul style="list-style-type: none"> • Give businesses tools for collective redress against platforms • Force platforms to become more transparent towards businesses 	Ensure the integrity, functioning and potential of the Single Market
 Competition	<ul style="list-style-type: none"> • Update competition tools to account for data • Force platforms to share relevant data, for example with municipalities • Increase possibilities for interoperability and enforce platform neutrality 	
 Algorithms	<ul style="list-style-type: none"> • Develop a European ethic of algorithms • Include civil society actors in decision-making on algorithms • Set up a European watchdog agency for algorithms 	Increase trust in a European platform economy

Illustration: Cinthya Nataly Haas-Arana

³⁸ Luca Belli and Nicolo Zingales (eds.), *Platform regulations. How platforms are regulated and how they regulate us*. Official Outcome of the UN IGF Dynamic Coalition on Platform Responsibility.2017.

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