The Directorate General for Competition (DG Comp) of the European Commission called for contributions for its workshop “Shaping competition policy in the era of digitisation”. Contributions can be submitted on the following three topics:

1. Competition, data, privacy and AI,
2. Digital platforms’ market power,
3. Preserving digital innovation through competition policy.

This note is focused on the second topic and looks at the issue of market power in relation to digital platforms, which is a prerequisite to addressing, in a balanced way, the concerns set out by DG Comp in the call for contributions: “The interests of platforms are not always aligned with the interests of their users, which can, as a result of platforms’ market power, give rise in particular to: a) leveraging concerns (digital platforms leveraging their positions from one market to another); and b) lock-in concerns (network externalities, switching costs, better service due to accessibility of data make it difficult for users to migrate to other platforms, and allow platforms to “exploit” their user bases). What should/can competition policy do to address these concerns and how?”

In particular, the note argues that:
1. Size is one of the key features for a digital platform to be efficient,
2. Inappropriate regulation and competition enforcement may hinder the development of European platforms into global players.

Each of these points are elaborated in more details in separate sections below.

1 SIZE IS A KEY FEATURE FOR DIGITAL PLATFORMS

A platform can only fulfil its economic objective and provide value to users if it reaches a significant scale. This is facilitated by the existence of indirect network effects between the users on different sides of the platform. In particular, users on one side of the platform value any additional user on the
other side and may decide to join the platform and be active on it only if there is a certain number of users, or scale, at the other side of the platform.\(^3\)

This intermediary, or matchmaking, role of a platform needs scale: a large platform has more users on each side, increasing the probability of interaction between users from different sides. A small platform, or many small platforms have a much limited opportunity to facilitate economically beneficial interactions between users on the various sides of the market as individual pairs of users from different sides may not even have the chance to be matched. Furthermore, platforms above a certain size may benefit from economies of scale and scope in logistics, distribution, service offering, better matching of consumer needs and many others. These efficiencies would ultimately benefit consumers.

In general, companies bound within the borders of a small country are constrained to develop and are disadvantaged via-a-vis companies born in bigger countries. Scale efficiencies, advanced technology and improved quality cannot be achieved in small markets, with limited amount of data. Some argue that a small amount of data is sufficient to achieve statistical significance. However, any additional input (data point, client, etc.) may improve the service quality especially as regards the unusual, marginal requests. This further strengthens the competitive advantage of big companies. For example, in the case of search services, one could argue that Google and its smaller competitor, Bing, should be able to provide the same search results as even Bing has already accumulated sufficient amount of data. While this may be true for frequently searched terms it may not hold for unusual search requests. Similarly, in the case of e-commerce platforms, the more retailers offer their goods, the more consumers can fulfil their needs, including the most eccentric ones.

As a digital platform grows in size, it gains access to more and more data about its users and their activity. While some concerns are raised in relation to the accumulation of data by digital platforms, where such accumulation leads to dominance, abusive behaviour and the creation of barriers to entry, such concerns should not be generalised to platforms that are not dominant, for which the primary use of the data is to improve the core product of the platform by bringing together users from different economic groups and help them interact. In particular, more user data is key to improve the algorithms, including artificial intelligence (AI) based algorithms, that are used to facilitate matching between the users on different sides of the platform.\(^5\)

This value-creation of user data is also recognized by the OECD, which states that data-driven marketplaces are generally associated with significant efficiencies both on the supply and demand side.\(^6\) Algorithms may help improving existing products and services or developing new ones. They may also support consumer decisions by providing structured information that can be accessed quicker and more effectively and also by providing information on new dimensions of competition other than prices, such as quality or other consumers’ preferences (through reviews and ratings).

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\(^3\) For example, consumers value more, large online marketplaces that are able to bring more retailers on board, whereas retailers also value more, large marketplaces that bring more consumers on board that could be expected to complete more purchases.


\(^5\) Some global examples illustrate this argument. For example, Amazon or Aliexpress needed to reach a certain scale to be able to attract consumers and retailers/suppliers from the entire world – a much smaller version of these platforms would be able to facilitate proportionately much fewer transactions. These transactions would be of a much lower value for consumers that would find only a limited supply and for suppliers that would have a limited customer potential.

In general, internet brings significant additional value and competition relative to the offline segment. The transparency and the multitude of options easily available in the digital world, may counterbalance the lack of sufficient competition in the offline environment, which is more constrained by the geographic reach of customers and suppliers. Digital platforms can make consumers better off in terms of price, quality, variety and a wide range of additional services.

A current feature of the largest platforms that are able to efficiently exploit their potential is that they were launched in the United States or China where they could operate and reach the necessary scale to go global in a large domestic market, facing limited regulatory constraints from sector regulators or competition authorities. Global technology companies are today the biggest players in most relevant sectors:

- Traffic: Google, Facebook;
- Payments: Visa, Mastercard;
- Apps: Android, iOS;
- eCommerce: Aliexpress, eBay, Amazon.

In this environment, European platforms are simple users that cannot act independently but, rather, have to rely heavily on these global players in order to perform their activity.

The next section will discuss more in detail the situation of European platforms.

2 INAPPROPRIATE REGULATION OR COMPETITION ENFORCEMENT MAY HINDER THE DEVELOPMENT OF EUROPEAN PLATFORMS INTO GLOBAL PLAYERS

The position of the European digital platforms in the global arena is rather gloomy. The Commission Staff Working Document on Online Platforms accompanying the Communication on Online Platforms and the Digital Single Market published in May 2016 acknowledges that stimulating innovation in the Digital Single Market, while adequately protecting the legitimate interests of consumers and other users, is an important challenge that the EU faces today in terms of securing its future competitiveness in the world. Furthermore, the said Staff Working Document makes reference to a survey which highlights that out of the total 176 platforms studied, only 25 (or 15%) were European, accounting for a little over 4% of market value.

The original survey mentioned in Commission’s document discusses this lag along many dimensions and provides the following figure for illustration.

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The same study highlights furthermore that (as at the date of the study):
- In the top 25 publicly traded platforms by market capitalization, only one is European (SAP in Germany, 10th place)
- In the top 25 privately owned platforms by market capitalisation, only two are European (Spotify in Sweden and Delivery Hero in Germany, none of them in top 10) (Delivery Hero is now public)

One possible argument to explain this development, or rather lack of development, is the market fragmentation in Europe. Some of this market fragmentation has natural grounds as countries use different languages and infrastructures. Other aspects of market fragmentation are more of legal and regulatory type as some regulatory competences are assigned to the national level and not always subject to a fully European, or indeed global, perspective.

The European Commission has started to recognize that the delay in the development of digital platforms with European origin may not be independent from the European regulatory environment. For example, the European Commission’s website dedicated to the Digital Single Market states the following: “The internet and digital technologies are transforming our world. But existing barriers online mean citizens miss out on goods and services, internet companies and start-ups have their horizons limited, and businesses and governments cannot fully benefit from digital tools. It’s time to make the EU’s single market fit for the digital age – tearing down regulatory walls and moving from 28 national markets to a single one. This could contribute €415 billion per year to our economy and create hundreds of thousands of new jobs.”

This discussion is, however, fairly general and does not provide precise recommendations. We believe that a sound European competition policy enforcement could decrease the disadvantage of European platforms in the global arena. A forward-looking approach taking into account the specific characteristics of the platform markets could support the objectives of the Digital Single Market.

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For the remainder of this section we will discuss some pragmatic views covering both the market definition and the assessment of market power in the context of digital platforms.

The first key area requiring careful considerations in the context of digital platforms concerns the relevant market, in particular the relevant geographic market.

Making Europe an important digital player worldwide is one of the goals of the Digital Single Market. Furthermore, the e-commerce sector enquiry undertaken by DG Comp seems to recognise the benefit of a European-wide online market. However, these objectives appear at odds sometimes with very fragmented competition enforcement in online markets. National competition authorities tend to define the relevant geographic market for a local digital platform to be at the national level. Subsequently, national competition authorities would find such digital platforms to have a dominant position in their local national market at the stage where these platforms have reached the size of being an important player in the national market but have not yet managed to step across the borders and develop internationally. Any such constraints would further exacerbate any disadvantage that these platforms have on the international scene in the first place.

Such a policy may trigger dangerous consequences in the direction of preventing the development of European (or indeed global) platforms, which may never reach sufficient size to compete internationally. A coherent enforcement of competition policy in individual Member States, supervised by DG Comp, may reduce uncertainty for businesses and enable a stable business environment to ensure growth, investments and innovation. This policy should start by acknowledging a wide geographic market definition for the online sector beyond national borders, as geographical barriers in digital markets are significantly lower than in the traditional sectors.

Digital European platforms born in any European Member State should be stimulated to grow beyond national borders if they are to become viable global competitors and achieve efficiencies like the big American or Chinese digital businesses. The European Commission should provide further guidance to the national competition authorities in the direction of acknowledging the elements that would support an EEA-wide market definition, at least. Platforms like eMAG have started to sell in neighbouring markets and have the potential to continue this development significantly. However, eMAG has already faced nationally focused regulatory barriers that could limit this growth to a certain extent.

A second area of competition policy where a better understanding of the functioning of digital platforms would be welcome is market power assessment. The perceived market power of some digital players (other than probably global tech titans) is in reality constrained by certain factors.

First, digital markets exhibit network effects between various user groups of platforms, meaning that an increase in the number of users on one side of a platform benefits the users on the other side. Competition advocates have signalled the danger of such markets tipping towards one large industry player. The emergence of such large players most often occurs under fair competitive conditions in technological and digital markets. Also, in many cases, the position of such large players can be disrupted by a new player, e.g. by stepping into the market with a technologically superior product.\footnote{The dynamics in this case is very similar to the one in the world of standardised products. Industry standards could signal the victory of a given technology in the market, however, they can be replaced by a new technology. For example, in the music industry LPs were replaced by CDs that were in turn replaced by the mp3 technology that has been replaced by online music streaming.}
Such industries are characterised by *competition for the market* rather than *competition in the market* and any position in the market conferred by a high market share can prove to be transitory and would not necessarily grant the company with a high market share a comfortable monopoly or dominant position. Large digital players are under the continuous threat of disruptive competition and would not survive in the long term without permanent innovation. And existing legislation, properly applied, is sufficient to address any abuse by such players of a dominant position.

Network effects are central to the debate about whether online platforms are “unstoppable”. Evans and Schmalensee (2018) attempt to debunk some myths related to the network effects, warning against slogans and advocating for evidence. They quote research showing a considerable churn in leadership for online platforms over periods shorter than a decade. This is largely due to the reverse network effects which are less mentioned in the debate. In the same way as networks can create exponential growth when additional customers attract more customers, networks can also lead to exponential decline, as each lost customer induces other customers to leave. The two authors explain that the apparent bias towards considering network effects potentially problematic comes from focusing on successful firms at a given point in time and concluding that they won it all and that they would not be displaced. They provide many examples such as AOL, MSN Messenger, Friendster, MySpace that all rose to great heights and then rapidly declined when Facebook, Snapchat, WhatsApp and others quickly came into the market. Overall, market power in digital markets can be ephemeral and unstable, as this is a sector characterized by an innovation pace faster than any other industry.

Second, the amount of data collected by digital platforms is often used as an important argument to claim their market power. Lambrecht and Tucker (2017) argue that, for a firm resource (including the data) to be a source of competitive advantage, the resource has to be inimitable, rare, valuable and non-substitutable. Their analysis suggests that raw data is not necessarily inimitable or rare, it has substitutes and it is not valuable by itself. Indeed, whereas big data is unarguably an important asset for firms in the competition game, raw data in itself may not be sufficient to place businesses above their competitors. Data has to be collected by powerful machines, processed by intelligent algorithms and used by ingenious minds in order to provide a competitive advantage. Again, this analysis depends on the scale of the data that is being collected and the relative market position of the platform: eMAG is clearly in a very different position from a globally dominant firm.

Third, market power of a platform in one market can also be constrained by strong digital platforms operating in neighbouring markets. In particular, a provider in one platform market can enter another platform market (that may already have one or more established players) by tying its own functionality with the functionality in the target market and leverage its user relationships from one market into the other one. This strategy is called platform envelopment. Examples include (i) Microsoft entering the streaming media market and replacing RealNetworks as the leading player, (ii) Google entered the productivity software market and the browser market linking its products (Google Docs and Chrome) to its search engine. See Eisenmann, Thomas R., Geoffrey Parker, and Marshall Van Alstyne. "Platform Envelopment." *Strategic Management Journal* 32, no. 12 (December 2011): 1270–1285.

Fourth, low search costs on the internet are an important factor affecting the consumer purchase journey. In particular, alternative offers can be easily identified if they exist. This high visibility of

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14 For example, one may use booking.com to find a hotel for a specific night in a specific town. However, it is also possible to look at Google Maps and identify a small number of hotels that seem most suitable and check their websites individually.
substitutes may seriously limit the market power of digital platforms in certain circumstances. Moreover, even if sometimes the online search directs consumers to marketplaces, once consumers identify the product or service needed they can circumvent the platform and “meet” the seller outside the platform. These off-the-platform matching opportunities put a competitive pressure on digital platforms, and even position them at a competitive disadvantage if consumers free-ride on their search functionality.

These considerations in relation to relevant market definition and assessment of market power illustrate that a competition policy with a more holistic view in relation to digital platforms could support significantly platforms with origins in an EU Member State to build up scale and become effective competitors to global digital platforms that started from the US or China.

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15 For example, a consumer can directly go to any online retailer that he/she knows or trusts and does not need to go directly to an online marketplace if finds its conditions unfavourable or abusive.
eMAG is a European ecommerce platform that was launched in 2001. Developed in Romania, the platform operates in other three countries – Bulgaria, Hungary and Poland. eMAG Group turnover reached the level of EUR 1 billion in 2017.

Initially a retailer, eMAG made available its infrastructure to other companies by developing the marketplace system. More than 17 thousand companies, mostly SME’s, sell their products on the platform in four countries.

eMAG Group has almost 5,000 employees of which around 15% are developing technology. In 2017, the company invested over EUR 60 million followed by a similar amount to be spent by the end of this year.