

**DIRECTORATE FOR FINANCIAL AND ENTERPRISE AFFAIRS
COMPETITION COMMITTEE**

COMPETITION, DIGITAL ECONOMY AND INNOVATION

Scoping Paper by the Secretariat

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1. Introduction

1. At the October 2015 meeting of the Competition Committee, the Secretariat was asked to prepare a short scoping note on a possible long-term project on “Competition, Digital Economy and Innovation”. This note will support the Committee’s discussion in June 2016 on this strategic topic.

2. The increasing prominence of the digital economy, a vital sector that drives growth, is reflected in the increasing focus that competition authorities devote to intellectual property-intensive and high technology industries. Since the impact of the digital sector extends beyond information goods and services to other areas of the economy, competition authorities are finding questions related to the digital economy to be more and more significant for their work. In 2002, the Committee held a session on merger review in emerging high innovation markets. Since then, it has devoted sessions to competition, patents and innovation; to disruptive innovation; to two sided-markets; and, in October 2011 and February 2012, two hearings were held on the main characteristics of the digital economy and their impact on competition law.¹

3. This scoping note is structured as follows: the next section lays out the main reasons why the Committee may want to pursue this project; a third section will identify a number of work topics for the Committee to select from; and the fourth and last section will delineate a work plan.

4. Given the topic, it is hard to be precise as to potential outputs at this point. Papers for the OECD’s roundtables and hearings are published, of course, so any work the Committee may choose to undertake would lead to some published output. However, the Committee might also want to consider additional outputs.

5. We would expect at least some of this discussion to involve the OECD’s Digital Economic Policy Committee and Secretariat, and/or the Committee on Consumer Policy. The OECD is currently pursuing a number of initiatives related to the digital economy, including a proposed cross-cutting project for 2017-2018 on how to seize the benefits of digitation. Thus, the Committee’s outputs are likely to add to, or be included in the wider OECD work in this area, which would benefit from the Committee’s contribution and leadership on the topic.

2. Motivation and Overview

6. Competition in major digital markets it is different in some ways from competition in other, more traditional markets. First, competition between business models (often platform-based) tends to be more important than competition within a business model. Second, many digital markets are two-sided, so that

¹ See OECD [DAF/COMP\(2012\)22 The Digital Economy](#). More recently, see OECD [DAF/COMP\(2015\)3 Disruptive Innovation](#), and OECD [DAF/COMP/WP2\(2015\)9 Disruptive Innovation in the Financial Industry](#).

two or more user groups benefit from use of digital platforms. Third, digital markets are often characterised by strong network effects and economies of scale, which give the market a competition-to-dominance trait. Fourth, as the digital economy becomes increasingly interconnected, some co-ordination and co-operation between firms could be unavoidable and may indeed be pro-competitive. Fifth, digital markets are characterised by high rates of investment and innovation, which lead to rapid technological progress in the sector, and lead to increased disruptive innovation.

7. These high rates of investment and innovation mean that no work on the digital economy can avoid discussing its relationship with innovation more generally. Previous work has been undertaken by the Committee on the relationship between competition and innovation, and is currently being pursued more widely within the OECD. It is still unclear, however, how competition affects innovation. What is widely accepted is that innovation and technological progress are the single most important factors in the growth of real output in the industrialised world. At the very least, studies show that the social return on investment in R&D not only extends beyond but significantly exceeds private returns, which suggests that policies that promote innovation can pay large dividends for society. As such, competition authorities are under increased pressure to consider the long-term effects of market behaviour and to focus on dynamic competition.

8. These developments are likely to pose significant challenges to competition agencies in the years to come. The relevance of business models for competition is not yet well understood, the tools to incorporate dynamic considerations into antitrust assessments are still at an early stage of development, and a number of techniques and doctrines that are usually applied when enforcing competition law seem inappropriate to deal with the digital economy. One of the most obvious examples of the latter is a mechanical application of a SSNIP test to define multi-sided markets or any situation where products and services are offered for free.

9. A Competition Committee project would create a forum where the latest developments – such as new techniques for market definition in multi-sided markets, the growing awareness of the various dimensions and increasing importance of data for effective competition in the digital economy, the development and potential application of models that purport to predict the evolution of innovation, the recognition that existing merger control thresholds may exempt from review potentially anticompetitive mergers between digital economy players, among others – are discussed, where countries could share their experiences, and which may even lead to the adoption of guidelines, best practices or other outputs relevant for many OECD and non-OECD countries.

3. Areas of Future Possible Work

10. Further work on the digital economy and innovation can be helpfully divided into four sub-streams: (i) background work on the relationship between the digital economy, competition law and innovation; (ii) work on the suitability of existing substantive competition law doctrines and tools to deal with the enforcement challenges raised by the digital economy; (iii) work on the practical challenges to competition law enforcement in this sector; and, lastly, (iv) work on specific economic sectors, or case-studies, that may illuminate and provide guidance on some of the issues identified above. This distinction should not be viewed as analytically watertight, and individual topics may fall into more than one work stream: its purpose is mainly to facilitate the description of the various potential areas for work.

3.1 The Digital Economy and Competition Law

11. This first work stream would deal with the more conceptual issues raised by the relationships between the digital economy, competition and innovation. As such, it is likely to take the form of a series

of hearing discussions with external experts, focusing on the latest relevant literature and supplemented with support work by the Secretariat as well as country contributions.

12. One topic could focus on **the role of competition law in shaping the digital economy**. While competition law is not directly concerned with designing the market structures in which competition will occur, it can be instrumental in promoting and shaping the ecosystem in which competition takes place. This is particularly noticeable in the digital economy, where competition occurs via physical systems and within ecosystems managed and operated by private parties. As such, assessing the role of competition in shaping the digital world could be of great interest. More specific topics in which work could be pursued include: (i) how competition law impacts the operation and relationship of traditional telecom networks, mobile virtual network operators and voice over internet protocol operators; (ii) the impact of competition in broadband and wireless on the wider digital economy competitive environment; (iii) online platforms, IT ecosystems and new markets (e.g. apps); (iv) business models in the digital age and competition law.

13. Given their general regulatory competence regarding the economy, competition authorities are often the first regulatory entity to intervene in unregulated new markets created by the digital economy. Platforms, which have traditionally been subject to competition law, play a regulatory role in multi-sided markets. Competition authorities may have to take responsibility for setting the parameters for market competition when competition occurs within digital environments and markets created by private entities. Lastly, the prevalence of behavioural remedies in the digital economy can require competition authorities to monitor and supervise markets in a way similar to a sectoral regulator. Taken together, this has required an **evolving role for competition authorities in the digital world**. Work could be pursued on this topic, e.g. by comparing national experiences, discussing how to achieve effective co-operation between competition agencies and sectoral regulators, and by exploring the benefits and disadvantages of integrated competition-regulatory agency models when dealing with the digital economy.

14. Lastly, further work can be pursued more specifically on the topic of **multi-sided markets**. This would build on previous roundtables on the topic, and in particular on developments in law enforcement and economic theory since the topic was last addressed in 2009. Related work could be pursued on the redistributive role of competition agencies, particularly if they need to determine how to maximise consumer welfare when various sets of customers benefit from different sides of the market.

3.2 Competition Law Enforcement in the Digital Age

15. A second work stream could focus on the challenges that the digital economy and innovation pose to prevailing antitrust tools and approaches. As in the previous work stream, this work is likely to take the form of hearing discussions and focus on the most recent literature on the relevant topics, with background work by the Secretariat coupled with country contributions.

16. It is generally agreed that competition authorities must deal with the speed of change and rates of innovation inherent to the digital economy by better taking into account market dynamics, and rethinking the use of traditional tools and concepts (such as market definition, market power and some traditional theories of harm). The main question is how to achieve this. For example, it is now clear that traditional tools used to define markets, such as the SSNIP test, must be either adapted or replaced when authorities are looking at multi-sided markets or at markets where goods and services are offered for free – yet, the question of what tools to apply in these cases is still controversial. Member countries have also suggested that the Committee look at how to incorporate innovation and dynamic related considerations into competition assessments. Accordingly, a first topic could look at the **suitability of existing antitrust tools and techniques for dealing with the digital economy and innovative disruption** and/or focus on specific topics in this area, e.g. market definition of multi-sided markets.

17. Antitrust cases regarding the digital economy are often controversial. They raise new issues, provoke extensive debates, and have arguably led to most of recent developments in antitrust law. While this was already evident in the Microsoft cases, it is further exemplified by recent antitrust investigations into companies such as Google and Apple, by debates on such topics as the relevance of data search degradation for competition law and the competitive impact of leveraging market power in the digital economy, and by novel cases such as those related to e-books. In light of this, the Committee could look into the main types of **anticompetitive practices identified in the digital economy** (in the literature and in practice), and into how they differ from anticompetitive practices in other economic sectors. Related topics that may also be relevant are whether the assessment of potentially anticompetitive practices should change in an environment of inter-platform competition on the basis of different bundles,² the relevance of “business models” for the assessment of corporate practices, and the implications of evidence of disruptive innovation and constant innovation in a market or sector under investigation.

18. A third topic could focus on recently expressed concerns on the possibility of **platforms becoming self-sustaining ecosystems and/or sealing themselves off from the rest of the Internet**. While some of these topics were already addressed in the Committee’s previous work on the digital economy, the current trend for bundle-based business models in this sector may lead to increasing barriers to entry and lead to the entrenchment of incumbents. Furthermore, a trend has been observed for some platforms to seal themselves off in some ways from the rest of the Internet – e.g. Facebook operates as a “walled garden” unsearchable by Google and other search engines, and has signed deals with content providers such as the New York Times regarding content that can be accessed only through Facebook, thereby potentially insulating itself from competitive pressure from other content distributors. Similarly, Google has been experimenting with proprietary data transport algorithms that interfere with the functioning of the underlying protocols underpinning the Internet to the advantage of Google and to the disadvantage of other internet traffic. In the light of this, work could focus on the questions such as: (i) whether business models focused on continuous innovation and acquisition of potential competitors can lead to potential market entrenchment; (ii) how patent hoarding and concomitant attempts to monopolise potential future markets should be treated; and (iii) whether competition law should be concerned with practices that impact on internet openness, and if so, how.

19. A fourth topic could look at the **treatment of mergers in digital markets**. In digital markets where competition is for the market, the main threat to incumbents may come from small companies with the potential to disrupt a company’s business model. Their acquisition by incumbents is widely recognised as a serious issue. However, the acquisition of commercially valuable data inventories, of young companies with great growth or disruptive potential, or of any intellectual property rights (e.g., patent portfolios) with which no current turnover is (yet) related, may escape merger control. For example, the Facebook/WhatsApp merger did not meet the EU’s merger control thresholds, and was only reviewed because a number of EU member states which did have competence referred it to the European Commission. As such, a pressing question in a number of jurisdictions is whether current merger control thresholds need to be adapted and, if so, what alternative thresholds should be adopted. Further work can also be pursued on whether merger assessments need to be adapted for digital markets and, if so, how.

² E.g. it has been argued that: (i) dominant companies compete mainly on future and related markets; (ii) one of the best strategies to compete consists of platform envelopment, i.e. leveraging market power to enter a market where another digital economy company is already present. Traditionally, this could be considered an illegal anticompetitive practice, but here it would seem to be competitive (if not the main way to compete). This also relates to the value of data for these companies, not only in terms of potential bundling of OS and search engines, but in terms of the platform being able to gather sufficient data to enter a new market in a way that a greenfield operator may not.

20. Data has been described as the “new oil”, or as the currency of the digital economy. Its importance and monetary value for digital economy companies is exemplified by American telecommunications company AT&T’s discount of USD 29 per month on its broadband subscription price for those consumers who agree to be tracked online. Thus, a fifth topic would consider **the role of data** in the context of the digital economy. First, data is a commodity, as undertakings compete to acquire and sell personal data. Secondly, data serves as an input, and personal data can constitute a barrier to market entry: undertakings may not be able to replicate or acquire the personal data necessary to compete in the market. Thirdly, given increasing data processing capabilities, data can be used to entrench existing market positions, and even to anticipate the creation of new needs and markets, thereby serving as a tool for leveraging market power. Building on the literature and on cases such as the Microsoft/Yahoo, Bazaarvoice, Google/DoubleClick and Facebook/WhatsApp mergers, work can be done on a number of issues, such as: the possibility of potential anticompetitive practices not based on price competition (e.g. crossing personal data from different databases or sources may constitute an abuse of dominance by creating a barrier to entry not related to competition on the merits); the relevance of data for merger assessments; the impact of rules regarding data acquisition and handling on the parameters of competition, market fragmentation and the existence of a level-playing field; and on the implications of Big Data for competition enforcement.

21. A last potential topic in this section concerns the **identification of appropriate remedies in digital and innovation-intensive sectors**. In previous Committee work, and in the literature, it has been pointed out that digital markets are constantly evolving. In such circumstances, it has been suggested that structural remedies may become rapidly obsolete. Furthermore, given the propensity for “winner-takes-all” markets in the digital sector, structural remedies may prove ineffectual. As a result, behavioural remedies may be preferable. Work can be pursued on matching remedial practices with specific sectors of the digital economy, and on comparing existing practices with a view to identify best practices.

3.3 *Practical Challenges to Competition Enforcement in Digital Markets*

22. In previous meetings, the OECD has discussed the scope of regulatory intervention in digital markets. An outstanding challenge, however, relates to the **timing of intervention** in digital and innovation-intensive markets. The optimal timing of competition law interventions is always a complex matter, but these difficulties are further compounded in digital markets, where intervention may occur after market circumstances have changed significantly, and where it can be hard to determine the point at which a firm may be considered dominant for competition law enforcement purposes. As such, it may be useful to compare national experiences enforcing competition law in the digital economy, and to study and discuss possible solutions to ensure timely intervention.

23. The issue of timely intervention is further compounded by the fact that business practices in the digital economy tend to have effects across jurisdictions. Good examples of this can be found in distribution practices in e-commerce, and in the price parity practices reviewed in recent investigations into Booking.com and Expedia. This cross-jurisdictional effect creates a risk that different substantive standards can be applied simultaneously to the same practice, may lead to a lack of coherence in the application of antitrust law, and limit the effectiveness of remedies. Furthermore, many markets in the digital economy are worldwide, giving rise to potential jurisdictional and conflict-of-competence disputes. As such, a topic that would build on the Committee’s previous work could focus on the **increased need for international co-operation and co-ordination in the digital economy**. Work on how to deepen and improve co-operation in this field, and the exchange of experiences and best practices in this regard, may be desirable in furthering these goals.

3.4 *Exploring industries and sectors in more detail*

24. A fourth work stream could look at specific economic sectors or pursue case studies with a view to identify potential issues, illuminate theoretical discussions and extrapolate potential developments. This particular work could be pursued with virtual workshops organised between meetings, with short reporting sessions in the Committee or the Working Parties.

25. A first possibility for this type of work would follow from, and build on the current work on disruptive innovation. The goal would be to **look at specific industries or sectors being disrupted or affected by digital economy**. This work has the potential to anticipate forthcoming developments, assist in timely intervention in the market, and support pro-competitive representations before sectoral regulators. Potential sectors to be reviewed include, among others:

- Transportation: while up until now the debate has focused on the interplay between traditional (licensed) incumbents and disruptive business models, recent developments indicate that further disruption can arise from driverless cars (for which legislation is already being discussed and adopted in some countries, such as Australia), particularly as regards road transportation and if owners are allowed to put their driverless vehicle to use providing taxi-like services. This has relevance not only for market definition, but also for to the role that competition authorities may want to play in the development of regulation in this sector.
- Online Advertising: e.g. the importance of business models based on online advertising in the digital economy, and how providers of different digital services – such as search engines, social networks and even news services – may effectively compete for attention and “clicks”.
- Search Engines: e.g. understand what the relevant barriers to entry and competitive constraints in the market are, and their impact in controlling access to the wider Internet.
- Social Networks: e.g. review how network effects shape these markets, whether these effects may lead to entrenchment, and understand business models (data mining, data selling, advertising, etc.) as well as competitive constraints.
- Online Software Platforms: e.g. how they compete with other platforms, and constrain competition in products and services provided through each platform.
- Electronic Commerce: e.g. study the interaction between online and bricks-and-mortar commerce, and how the competitive environment is likely to develop.

26. **Case studies** would review the historical evolution of specific sectors or industries in order to better understand how competition law intervention affected these industries or sectors’ development. As such, these case studies are not as future-looking as the sector review suggested above, and are likely to take into account longer time-spans. Suggested case studies include:

- Evolution of the PC industry from the 1980’s to today
- Evolution of mobile hardware or platforms
- How the markets for search engines / social platforms have evolved

4. Working Methods

27. Work on these topics could take different forms:

- Some analytical topics could form the basis of roundtable/hearing events throughout 2017 and 2018. This would ideally be the case for work on the relationship between competition and the digital economy – which could begin with hearings on big data, followed by roundtables on how sectoral (e.g. telecommunications) regulation and competition law affect digital economy ecosystems, and on multisided markets. It is suggested that a discussion on the role of competition authorities in the digital world would be a fitting way to conclude the project, and would benefit from all previous work pursued as part of the project.
- Some topics could be addressed through questionnaires and Secretariat synthesis reports, limiting the discussion time at meetings to a minimum. This is likely to be the best approach for reviews of economic sectors and case studies. It is suggested that at least one such review or case study is pursued and presented at each Committee meeting for the duration of the project. It is further suggested that work begins with a study of prospective developments in the transportation sector, with subsequent subjects being chosen taking into account topicality and the work pursued at the national level in order to avoid duplication and ensure relevance.
- Some topics could also be discussed at the Global Forum, as they might be highly relevant to the wider range of countries that take part in this forum. This approach may be particularly well suited to practical issues that all competition authorities face – such as challenges regarding the timing of intervention and international co-operation, which relevance when dealing with the digital economy can be analysed in the context of wider discussions on these issues.
- On topics that may require greater participation and in-depth work from delegates and other stakeholders, a mechanism where delegates can volunteer and work via conference calls, supported by the Secretariat, may be adopted. Some topics may be discussed remotely – via web seminars or teleconferences –, particularly as regards issues on which there is still no consensus, when competition agencies are facing common challenges, or more broadly when countries wish to share experiences. The organisation of workshops where competition agencies could discuss cutting-edge topics and developments with academics and the private sector should also be considered.

This approach would seem particularly well suited for more challenging technical issues – such as the suitability of existing antitrust tools and techniques for dealing with the digital economy and innovative disruption, or the identification of market power and monopolistic practices in the digital economy. In these areas, ongoing work is required, and creating communication channels between competition agencies and tribunals, the private sector, and academia may prove beneficial. Furthermore, this type of work could be coupled with questionnaires and Secretariat synthesis reports whenever country experiences are likely to prove relevant to the identification of best practices – e.g. what remedies are likely to prove more efficient in digital contexts. These informal work mechanisms may lead to Secretariat synthesis reports as well as to the identification of roundtable/hearing topics, and could be used throughout the duration of the project –potentially even after the project is officially concluded, if there is interest in doing so.

- Some topics might lead to the adoption of instruments. In such cases, work will probably need to be done with a drafting group, consulting the wider group of delegates by email and reporting progress back to the Committee.

28. Big Data and Disruptive Innovation in the Transportation Sector have already been selected as topics for the meetings taking place in November 2016. In the Table below, other topics proposed in this scoping note have been assigned suggested formats and meeting dates.

Table – Work Plan

Topic	Format	Date
Competition Law and Digital Ecosystems	Hearing	June 2017
Market Definition, Market Power and Anticompetitive Conducts in Dynamic High-Innovation Sectors	Workshop	November 2017
Competition Law in Multisided Digital Markets	Hearing	November 2017
Evolving Digital Markets – Cyclical Schumpeterian Disruption?	Workshop	February/March 2018
Competition Remedies in a Digital World	Roundtable	June 2018
Platform Competition Online and Offline	Roundtable	June 2018
Merger Control in the Digital Economy	Roundtable	November 2018
Practical Challenges to Competition Enforcement in a Digital World	Hearing	November 2018

29. The digital economy is a matter which is likely to be of the greatest importance over the next few years, and, if approved, the project's impact will be felt well beyond the realm of competition enforcement. Competition agencies are likely to have to liaise with other stakeholders within their jurisdictions. The Secretariat is already working across departments as the OECD devotes increasing attention to issues related to the digital economy.

30. If the Committee can agree on a clear statement on the topic, and especially if it can lead the debate in the OECD more widely, it will be making progress on an important and topical issue. The outcomes of this long-term project will undoubtedly be important and useful, especially if they lead to best practices. However, the identification of specific outcomes may be better left for when the project is at a more advanced stage.