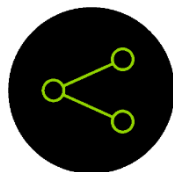


Stakeholder workshop on the transformative effect of access and re-use of data for smart industries

June 6, 2017

Report

This report of the stakeholder workshop on “the transformative effect of access and re-use of data for smart industries” is provided by the consortium carrying out the “study on emerging issues of data ownership, interoperability, (re)usability and access to data, and liability” composed of Deloitte Belgium, Open Forum Europe, Open Evidence and Timelex. The opinions expressed in this report are those of the authors and do not necessarily reflect the views of the European Commission.



Report

The workshop "The transformative effect of access and re-use of data for smart industries" took place on 6 June 2017 in Brussels. It was organised by the Commission in the context of the structured dialogue announced in the Communication of January 2017 "Building a European Economy".

DG JUST unit A2 "Contract law" and DG CNECT unit G1 "Data Policy and Innovation" chaired the workshop. 76 participants registered to attend and 11 presentations were provided.

The purpose of the workshop was to bring together stakeholders representing different sectors to investigate how data is changing their businesses as well as the issues they face in accessing and re-using data.

The workshop was organised around three questions. The main conclusions can be summarised as follows:

- ***How is big data transforming European industry and everyone's life?***

Massimo Vanetti, an expert from Small Business Standards, focused his presentation on digital innovation, industry 4.0 and the Internet of Things, using the example of coffee-making machines, and showing how data is transforming that sector. He mentioned also an example where the business model of an SME wanting to offer predictive maintenance of lifts was made difficult by manufacturers using technical standards to prevent access. Paula Peiro, a project developer from irRADIARE, Science for Evolution (IrRADIARE), presented the Intelligent energy management system (IEMSy) project, explaining that there are some barriers for the use of data. Both speakers suggested that the European economy is facing an evolution, with the majority of businesses looking at the possibilities that data offers in order to improve the services that they provide.

In the subsequent discussion, a number of companies representing the automotive sector considered that access to third party data is a fundamental part of their business. According to them, legislative intervention is needed in order to unblock access to data and break data oligopolies.

- ***How is data shared within the same ecosystem?***

Pieter van Hout, a member from the Committee of Professional Agricultural Organisations - General Committee for Agricultural Cooperation in the European Union (COPA-COGECA), explained that in the agricultural sector, *super partes* entities are being established to enable the indispensable trust creation along the value chain and allow all players to pool data together and have access to it. These hubs are supported and maintained by the different participants of the value chain, ensuring that the data is available under the same conditions for all participants. Grey areas of contract law would be addressed by the agreed code of conduct. Ivo Hostens, technical director from the Committee of European Agricultural Manufacturers (CEMA) supported this approach, defending that standards and normalised Applications Programming Interface (APIs) have a key role. Sabino Constanza, founder of Credimi, agreed with the speaker from CEMA, arguing that technical interoperability of the datasets is fundamental in order for data to be shared. Matthew Evans, Vice-President of Digital Transformation at Airbus, explained that in the aviation sector, access and reuse of data is governed through B2B contractual relations. In any case, all participants agreed that enabling data sharing and building trust is not simple, and that many factors, more or less specific to the value chain, enter into play.

- ***Which are the main obstacles in accessing and reusing data?***

Marc Greven, Legal Director of ACEA (the European Automobile Manufacturers' Association), explained that data flows in the automotive sector currently occur in a variety of ways: on a contractual basis, without a contract, through a physical connection and remotely. In the future, remote access will become the rule, and because of it ACEA is developing standards on the concept of the connected car, a model that would allow third parties to access the data generated by the car in a safe and seamless way. This position was contradicted by Bernard Lycke, Director General at the European Council of Motor Traders and Repairers (CECRA), Laurianne Krid, Director General at the International Automobile Federation Region I (FIA Region I) and Sylvia Gotzen, Secretary General of the European Federation of Aftermarket Distributors (FIGIEFA), who explained that in reality, the extended vehicle solution does not allow for direct access to the data generated by the car; this creates market distortion, because manufacturers have full-fledged access to the car, whereas other stakeholders don't.

The workshop overall showed that there are many differences between sectors, both in terms of how data is accessed and in terms of which data is (re)used. This could explain the differences in relation to regulatory options proposed by stakeholders, some of whom are calling for hard legislation, whilst others consider that no intervention is necessary or that soft policy measures like a code of conduct with the involvement of a third, independent partner would be preferable. Access of 3rd party providers for (predictive) services works to the satisfaction of market players in some sectors but not in others, where the data holders may have/use technical reasons not to give access or are not willing to share data.

Minutes

The workshop "The transformative effect of access and re-use of data for smart industries" took place on 6 June 2017 in Brussels and was organised by the Commission in the context of the structured dialogue announced in the Communication of January 2017 "Building a European Economy".

DG JUST unit A2 "Contract law" and DG CNECT unit G1 "Data Policy and Innovation" chaired the workshop. 76 participants registered to attend and 11 presentations were provided. The participants came from very diverse sectors and organisations: agriculture, manufacturing, Information services, industry associations, think tank, Innovation & science, NGO focusing on consumer protection, consulting / ICT, energy, insurance, Startups, international institution, aerospace, Credit Data Supplier, Financial Services, Data Analytics, broadcasting.

The purpose of the workshop was to bring together stakeholders representing different sectors to investigate how data is changing their businesses as well as the issues they face in accessing and re-using data.

1 - Welcome and introduction from the European Commission

The Commission welcomed the participants and set the scene for the workshop. The event was part of a consultation process initiated by several Directorates General of the European Commission in order to identify new and emerging barriers that inhibit further development of the data economy. As the European Commission illustrated on this occasion, the consultation process is made up of several workshops and a public consultation (which lasted until April 2017 and of which the results will be published in July 2017). The Commission underlined that it is in a "listening mode", and legislation will be created only if barriers are identified in the market. The consultation process will end in the autumn and the Commission will report on the main findings of the stakeholders' consultation process.

Following this introduction, the Commission provided a preliminary analysis of the results of the public consultation. The consultation looked at some key elements of the data economy: free flow of data (i.e geographical restrictions); the access to data; liability; and portability. Some 380 questionnaire responses were received, as well as 113 position papers (28 as stand-alone contributions). The respondents were mainly business and trade organisations, with a significant number of small and medium enterprises (SMEs). In relation to the free flow of data, 63% of respondents confirmed the existence of data location measures, with 62% supporting the removal of data localisation restrictions through hard or soft law. In relation to access and transfer, a majority of respondents supported the idea that companies should be able to access data more and more freely, with most respondents requesting some form of soft legislation. In relation to liability, it emerged from the public consultation that few consumers seem to be aware of the legal framework and of their rights. Finally, in relation to data portability, the responses showed that services allowing portability are currently high in demand but low in supply.

2 - Presentation of the study conducted by Deloitte

After the introduction, Deloitte presented the preliminary results of the ongoing study on emerging barriers related to the data economy. 10 case studies (each covering a different sector) were considered, with stakeholders from those sectors being contacted in order to obtain relevant insights and map the new business models. At the same time, a general and statistically relevant survey was developed, aiming at obtaining quantitative evidence on trends in the sectors covered by the assignment.

First, Deloitte presented the current status of the use of data in the European Union. In general, the study shows that where new products based on data are developed the development takes place in-house. Indeed, currently data sharing and reuse is quite rare, being limited to only 2% of business data¹. Although only a limited number of companies share and reuse data, the survey also showed that there is an appetite for more data, with businesses thinking that with data they could improve existing services and create new ones.

¹ Source: the European Data Market Monitoring Tool, IDC 2016

Regarding the issue of access to data, the evidence collected is contradictory. A majority of respondents to the general survey replied that their companies can access the data that they need. However, many of the stakeholders interviewed said that data access is a problem, and this is also confirmed by the preliminary analysis of the data emerging from the public consultation. One reason that could explain this is that only 6.3% of EU companies are intensive “data users”²; hence, access to data may not constitute a problem for the majority of companies in Europe – but rather for the most innovative ones. Another possible explanation is that companies can access the data they need for their business, but would like to have access to more data in order to provide new products and services, beyond what they currently offer. In this regard, the speaker pointed out that stakeholders seem currently to use data more for digital optimization (increasing efficiency of existing models) rather than for digital disruption/transformation (creating new models in a radical or progressive way).

To further dig into the drivers and causes of lack of access and reuse of data, the study tested a number of possible barriers. From the perspective of current or future data users, one of the main barriers underlined by stakeholders is precisely the fact that data is not made available by data sharers, as a result of many reasons, such as: a risk of sharing sensitive information, legal and value uncertainty, technical barriers and lack of skills. Other than data not being made available, the study specifically considered the subject of contractual barriers to the sharing of, and access to, data. Indeed, as contracts are the main vehicle of the data economy in its present state, contractual issues and legal uncertainty appear to constitute a potential explanation for limited access to data.

While the concept of “data ownership” was originally explored by the study team, it soon became clear that this is not a major barrier for the data economy. More relevant is the question of access and reuse rights, which are decided by business through contracts and on a case-by-case basis. This reliance on contracts has a number of pros and cons: from a positive perspective, contractual freedom ensures that companies can adjust clauses to their needs, and act quickly when new developments arise. On the downside, using only contracts as the vehicle for exchange of data can entail administrative burdens each time a contract needs to be renegotiated and can lead to different approaches towards the same legal concepts, due to the variety of clauses used. Moreover, some businesses (and especially smaller businesses) may suffer from unequal bargaining power and so struggle more to obtain access to the data they need.

² Ibidem

The question of liability can also be treated as a contractual barrier at this stage, as most businesses currently deal with the liability aspects of data through contracts and on a case-by-case basis, as also shown by the results of the general survey. However, it also emerged that there is a certain lack of clarity in the legal regime, as liability and damage types are not well defined and/or understood, and the overall liability regime distinguishing between products and services might need revising.

Technical obstacles were also identified as representing a considerable barrier, because the lack of interoperability and portability entail high costs for businesses willing to access data, and this is especially true for SMEs and start-ups. Nevertheless, in this area there is a general trend towards greater openness and interoperability, which could reduce the costs of using data in the long term. Finally, the study team pointed out that other barriers, such as the problem of attributing the right value to data or the lack of skills of employees, can also explain why for start-ups and SMEs data access and reuse might not be as simple as it could be.

Deloitte also provided a short presentation of the conclusions of the SMEs' and start-ups' business models workshop. It was explained that the magnitude of the data access problem for stakeholders was not clear. Indeed, the extent to which access to data is blocked was not defined, although there was some proof that this could be the case in some sectors. The debate connects directly with the debate between horizontal solutions to data access or sector-based solutions. Some possible solutions that were mentioned in the SME workshop ranged from imposing obligations on data holders to open up their data to default contract rules, opening up also the possibility of using regulatory sandboxes.

3 - How is big data transforming European industry and everyone's life? The case of energy and retail.

Massimo Vanetti, an expert from Small Business Standards, focussed his presentation on digital innovation, industry 4.0 and the Internet of Things, illustrating in particular the case of coffee-making machines. These devices are highly automated, but typically the information that they generate are only available on the premises, via the local interface.

With the Internet of Things, this changes, as the information could be sent to a cloud, usually one set up by the manufacturer.

This has opened up a market of many new opportunities: manufacturers can use this data to know where the machines are, to understand how they are used, to ensure that machines work as intended, to develop new products and to get a corpus of data that can be provided to other parties; dealers can use this data to increase the quality of their services, for example, by knowing better how to fix machines; roasters can use the data in order to avoid fraud (so coffee shops use the recommended products instead of those of competitors) and compare business performance; finally, coffee shops expect to get better maintenance.

Currently, data sharing and accessing in this sector works smoothly, although Massimo Vanetti indicated some points of potential friction that could appear in the future. The first issue relates to neutrality: currently, manufacturers have a lot of data, but in the future this could be translated into manufacturers having too much market power due to the amount of information at their disposal. He mentioned also an example where the business model of an SME wanting to offer predictive maintenance of lifts was made difficult by manufacturers using technical standards to prevent access. Another issue is accessibility and interoperability: a large buyer might buy devices from different manufacturers. As explained above, each manufacturer has its own cloud. According to the speaker, this could potentially mean that buyers would need to use different clouds, something that it is not efficient because data end up being fragmented. Despite these emerging risks, at present the value chain in this sector is collaborating on the question of data, and this could serve as example for other sectors.

Paula Peiro, a project developer from irRADIARE, Science for Evolution (IrRADIARE), presented the intelligent energy management system (IEMSy) project. This system is used in order to increase the efficiency of energy management in cities. The project is based on a vision of open access to energy data, which would allow the creation of a single European market for innovative energy and climate management. For this, irRADIARE would like to access as much data as possible in order also to be able to share this data with other parties from the ecosystem. The main problems in this respect concern the lack of legal clarity regarding access to data and the questions related to technical interoperability. According to the speaker, access rights granting sector-wide data schema need to be recognised and regulated. Moreover, a common European, standardised nomenclature should be developed to overcome the technical barriers.

Intervening in the discussion, Isabelle Buscke, from the Verbraucherzentrale Bundesverband (vzbv) (the Federation of German Consumer Organisations), raised the point of the difficulties in distinguishing, in the energy sector, between personal and non-personal data. Matthew Evans, Vice-President of Digital Transformation at Airbus, answered that, overall, the legal regime is not clear on this point, and the question of the distinction between personal and non-personal data is very relevant also for the aviation sector. Indeed, the analysis of flight data produced by machines might be precise enough to identify specific and individual pilots' flying styles, which is not considered acceptable by airline companies. Massimo Vanetti noted that when discussing coffee machines, he had been speaking about professional machines, which for him means that the debate between personal and non-personal data does not represent a barrier. However, he agrees that in the future this may become an issue because more and more people are starting to buy connected coffee machines for personal use, and they install them at home.

4 - How is data shared within the same ecosystem? The case of agriculture, financial services and aviation.

Pieter van Hout, a member of the Committee of Professional Agricultural Organisations - General Committee for Agricultural Cooperation in the European Union (COPA-COGECA), illustrated some of the key challenges which farmers face when trying to reap the benefits of data. In this regard, COPA-COGECA has developed a grid that analyses how the agricultural sector could embrace the digital economy. Data was identified as having a fundamental role in this, because it allows farmers to predict their production, to adjust their resources, and, in general, to optimise their processes. Building on this, the agricultural sector has seen the emergence of many initiatives aimed at improving data sharing also through the creation of neutral entities, between farmers and other stakeholders, such as in the case of the Cooperative Hub. Moreover, inter-sectoral exchanges of data also take place, for instance through the use of the Creative Commons Initiative in order to improve farming through the release of open data. At the international level, there is also a similar initiative, called GODAN. These initiatives are based on the principle that farmers are the owners of the data. Whilst this process is not frictionless, COPA-COGECA considers that problems related to data sharing can be mostly solved through standard contracts and clauses. The Commission asked how to effectively bring different actors together into initiatives like the data hub; Pieter van Hout answered that the project had started on a specific and small-scale basis, and then grew into the current form.

Ivo Hostens, technical director at the Committee of European Agricultural Manufacturers (CEMA), explained that, in this sector, access to and exchange of data is currently the norm. However, these exchanges are currently sub-optimal. To improve the situation, machine manufacturers have created a number of data hubs in order to have a neutral platform where they are able to share their data. For the purpose of updating and sharing data on this platform, standards and normalised Application Programming Interfaces were created. Moreover, there are also platforms (such as 265FarmNet) where data is stored and then treated in order to facilitate legislative compliance and reporting. Similarly to the previous speaker, Ivo Hostens argued that farmers are the data right owners. Moreover, the benefits of creating a code of conduct that could guarantee a clear terminology in contractual negotiations was underlined.

Asked by the Commission about the similarities and differences with the data-sharing debate which is taking place within the automotive sector, COPA-COGECA answered that the interests of the different stakeholders and their positions are different from those in the automotive sector, and this eliminates conflicts between the users and manufacturers of agricultural machines. Moreover, as CEMA added, manufacturers need farmers that are successful and buy machinery, so it is in manufacturers' best interests to give farmers as much power as possible also through sharing data.

Sabino Constanza, founder of Credimi, explained how necessary it is for companies in the financial sector to have access to data, and how the second Payment Services Directive 2 (PSD2) has facilitated the emergence of a data market. Despite this favourable regulatory framework, barriers to access and reuse of data remain, with technical interoperability of the datasets being one of them.

Matthew Evans, from Airbus, explained the importance of data in the aviation sector and underlined that access and reuse of data in this domain is governed through contractual relations. Indeed, plane producers such as Airbus do not have direct access to the data generated by their machines as these are in the hands of the owners of the aircraft, the airline companies. In this respect, further automatic access to data would be welcome in this sector. However, thinking about regulatory environments, Airbus pointed out that its products are sold and operate all around the world. Therefore, Airbus needs to take into account different regulatory frameworks and, in this respect, European-level regulation could have a negative impact, as it could create legal fragmentation and friction between different rules at the global level.

Asked about the idea of creating a regulatory sandbox, Sabino Constanza argued in favour of such an approach, as it allows experimentation and testing, on a level-playing field. An expert from the Commission in the area of maritime transport pointed out that it is very important to also consider the exchange of data with the public sector. CEMA answered that the exchange of data with public authorities is being analysed, not only with the objective of making compliance easier, but also in order to develop new businesses. However, in relation to making all private data available to anyone, they consider this to be excessive. Instead, solutions should be examined on a case-by-case basis.

5 - Which are the main obstacles in accessing and reusing data? The case of the automotive sector.

Marc Greven, Legal Director of ACEA (the European Automobile Manufacturers' Association), explained that data flows in the automotive sector currently occur in a variety of ways: on a contractual basis, without a contract, through a physical connection and remotely. Nonetheless, only a limited amount of data is accessible remotely by third parties. Remote data can be obtained by means of consumers' contractual consent, using third party "dongles" connected to a vehicle's 'OBD' port. ACEA's members are definitely favourable to making data available to third parties, but under some conditions, and limited to certain categories of data. In this regard, they are conducting a lot of work on developing the concept of the "extended car" and on creating standards in ISO (ISO 20077-1). However, the liability rules in place tend to cause manufacturers to be careful in granting too much direct access to the car to third parties. In fact, access to a car's data should happen in a safe way, and there must be a return on investment for those manufacturers which provide access to third parties, because of the costs this entails for them. Following this, he explained that not all types of data are the same, and they are used for different reasons, showing that some categories of data are produced directly by the companies whereas other categories are personal data. Therefore, the question of granting access to third parties to different types of data should be considered carefully.

Bernard Lycke, Director General at the European Council of Motor Traders and Repairers (CECRA), explained that it is vital for their business that manufacturers provide them with full access to quality data. He defended that competition starts in the 'full and fresh' data generated by the vehicle, because the quality of this data dictates the quality of the service. Currently, this data only goes via 'closed' telematics systems to the servers of the respective vehicle manufacturers, from where all other service providers are offered access to a reduced quality of data. This makes it impossible for all these other service providers to compete fairly and equally because in the automotive aftermarket, operators and mobility-services providers need real-time access to today's connected vehicle and its data.

Laurianne Krid, Director General at the International Automobile Federation Region I (FIA Region I), supported the same idea, explaining that there is support amongst drivers and consumers for the fact that driving data belong to them, which means that they could choose to provide the data to third parties. From the same consultation, it was discovered that some people would be willing to share anonymous or personal data in exchange for benefits. Therefore, some consumers are ready to share their data. However, for this to be a success, FIA Region I considers that consumers need to have full choice, a seamless experience and to be protected by competition and data protection laws.

Sylvia Gotzen, Secretary General of the European Federation of Aftermarket Distributors (FIGIEFA), attacked the Extended Vehicle concept defended by ACEA, explaining that in reality, it does not allow for direct access to the data generated by the car; this creates market distortion as manufacturers have full-fledged access to the car, whereas other stakeholders do not have that access. Therefore, she called for solutions that would allow the automotive aftermarket to thrive, meaning hard law solutions imposing on manufacturers the obligation to give access to vehicle data.

6 – Results of the live poll and conclusion

During the workshop, participants participated to a live poll. Asked about the purposes for which businesses use big data, participants answered that big data is used to create new products (54%) and increase productivity (23%). Moreover, 47% considered that lacking access to data impedes the development of their business models.

Asked about the parties with whom they share their data, participants answered that they do it with B2B clients (44%), public authorities (44%), B2B suppliers (33%), other actors within the same ecosystem (33%), data service providers (28%) and accountants (28%).

In the cases where they do not share data, participants motivated this with a fear of losing their competitive advantage (40%), 'other reasons' (20%) or simply they did not know why they do not share data.

The Commission thanked all the participants and said that it will continue looking at this issue with results and possible actions coming after the summer.