

**ETNO Response to the
BEREC Public Consultation
on the data economy**

21 November 2018

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INTRODUCTION AND OBJECTIVES

In recent years data has become a key resource for companies, civil society and governments. Advances in technologies, such as communications, computing, storage and software engineering, have allowed for cost reductions in data processing and storage, leading to the progressive incorporation of different economic actors into the data economy. This has also led to an exponential increase in data generated by consumers, private and public entities and, more recently, objects (the IoT).

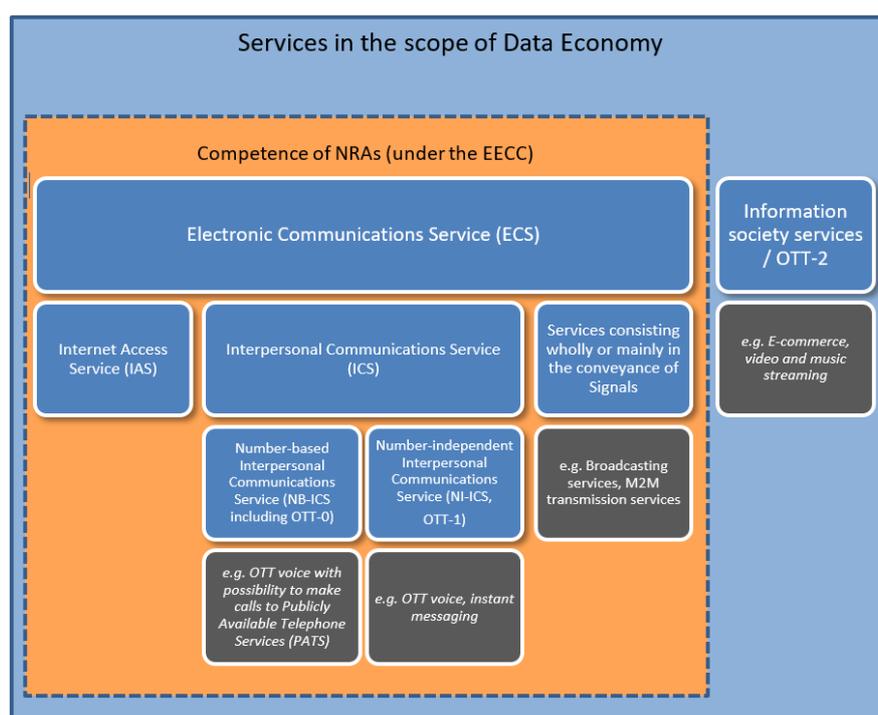
The increasing availability of data and the development of tools to collect and analyse data is changing a large portion of the economy, enabling innovative business models, cost reductions, more informed decisions by consumers, institutions and firms, and increased economic growth. All societies, including Europe, should ensure that firms, institutions and citizens are ready to take advantage of the vast potential of this strategic asset.

Meanwhile, the EU Telecommunications Policy Package is expected to be replaced in January 2019 by the EU Directive on the European Electronic Communications Code (EECC). The amended definition of electronic communications services in the EECC includes Over-The-Top communications services (OTT-0 and OTT-1) in the scope of the Directive as "number independent interpersonal communications service", thus widening the definition significantly.

For questions regarding the use of personal data, the General Data Protection Regulation applies, unless overriding sector-specific data protection rules are applicable.

The sector-specific data protection rules in the telecommunications sector are currently included in the Privacy and Electronic Communications Directive (2002/58/EC). They will eventually be replaced by the EU e-Privacy Regulation, which will then apply directly in the member states and will not need to be transposed into national law.

The following figure depicts the services in the scope of the data economy in relation to the future competences of National Regulatory Authorities (NRAs) according to the EECC.



Taking this into account, BEREC considers that it is important to study the impact of the data economy on the electronic communications sector that is under its regulatory scope, as well as considering the role that NRAs could play in the context of the data economy. Essentially, BEREC is interested in deepening its knowledge of how the data economy could affect its traditional line of work (both in terms of reshaping Electronic Communications Markets and in terms of the tools that can be used by NRAs to conduct their regulation activity) and how BEREC could contribute to the development of the data economy.

With this aim, BEREC has carried out some preparatory meetings with academics and stakeholders, including a workshop in June 2018, at which NRAs' Heads and various relevant actors took part. Following on from this, BEREC will prepare a report to be published in mid-2019.

As part of the preparatory tasks, BEREC has prepared this call for input with the aim of getting insights from all types of actors (consumers, companies in the telecommunications sector, digital companies, other companies, institutions) on issues to be taken into account by NRAs in the context of the data economy, as well as ideas on where the experience of NRAs can be used, in collaboration with other regulatory bodies, to encourage the development of the data economy. Specifically, BEREC is interested in the following issues that are addressed in the different sections of the public consultation:

1. **General issues regarding the data economy to be taken into account by BEREC.** This comprises issues such as the definition of the data economy, a taxonomy for the data that is used and its general economic properties, as well as identifying bottlenecks for the development of the data economy.
2. **Electronic Communications Networks (ECNs) and Services (ECSs) as enablers for the data economy.** Telecommunications networks are the "base structure" which enables data flows and, as such, this infrastructure is key to facilitate the transition towards a data-driven economy in Europe. BEREC is interested in the characteristics and future evolution of ECSs, as provided for in the monitoring and review obligation stemming from article 114a of the draft EECC, but also in order to ensure that consumers, companies and institutions benefit from the opportunities associated with the data economy.
3. **Impact of the data economy on competition in ECS markets.** Like most sectors of the economy, the telecommunications sector is affected by the data economy, and the use of data could be an important factor affecting the dynamics of competition in ECS markets. Furthermore, the new EECC provides a wider definition of ECS that encompasses OTT-0 and OTT-1¹. This broader scope includes actors who are in principle even more involved in the data economy: for example the business models of OTT-0 and OTT-1 service providers often involves commercialising data instead of billing users for their services. BEREC is interested in getting stakeholders' views on how the use of data in the provision of ECSs is changing competition in the communications sector. Furthermore, BEREC would also like to get an overview of the issues to be taken into account when performing market analysis on ECS markets that are linked to the development of the data economy.

¹ As defined in the BEREC report on OTT services (BoR (16) 35, January 2016). Those are the OTT services that provide voice-over-IP services and/or instant messaging services.

4. **The data economy in NRAs' regulatory activity.** NRAs can also benefit from the tools developed in the context of the data economy in order to take well-informed regulatory decisions and they can also share part of their data with the public. BEREC is interested in proposals from stakeholders that can be applied within the scope of its regulatory activity, for instance relating to the sharing of data and the application of data analytics in order to enhance regulatory decisions and to help consumers, companies and other institutions to optimise their decisions in a more informed context, in line to what is expected from institutions in the 21st century.
5. **NRAs' regulatory experience applied to the data economy.** BEREC is also interested in getting feedback in relation to potential collaboration with other regulatory bodies (e.g. data protection authorities) that could be of help in the field of the data economy. In this regard, BEREC would like to know if the methodologies and experience developed by NRAs could be of use in the context of the data economy. In particular, BEREC is interested in knowing whether its experience could be of help in the context of the data economy regarding:
- Monitoring the evolution of markets;
 - Assessment of market power and the potential need for regulation;
 - Application of ex-ante regulation (whether this is symmetrically applied to all actors or applied only to the dominant player);
 - Development of portability schemes that aim to reduce switching costs for consumers;
 - Supervision of standardisation for interoperability, with the aim of maximising network effects;
 - Promotion of the development of wholesale access markets.

Once BEREC has received all stakeholders' responses to this consultation, a report summarising their input will be published on the BEREC website. The contributions will be used in the preparation of the final report.

INSTRUCTIONS FOR SUBMITTING FEEDBACK

Timeline and target group of this consultation

This consultation runs from the 10th October 2018 to the 21st November 2018 (closing date). It is open to the wide range of public and private stakeholders involved in the data economy, as well as to their associations. We welcome contributions from all actors that are interested in the data economy, namely:

- Public organisations, including local, national, or international organisations (e.g. data protection authorities, competition authorities, government authorities, intergovernmental organisations, non-governmental organisations, etc.);
- Industry actors: online platforms, media and social media companies, online content providers, online advertisers, providers of Electronic Communications Networks (ECN) and providers of Electronic Communications Services (ECS, as defined in the EECC), operators that are active along the value chain of the Internet of Things (IoT), players active in data collection or data processing, software developers, producers of smart devices, and any other industry players active in the data economy;
- Industry associations and networks;

- Consumers and consumers' associations;
- Academics, specialised research centres, think tanks, etc.;
- Financial investors;
- Any other stakeholder or citizen(s) with expertise/interest in the data economy.

Instructions for submitting your response and transparency provisions

Please provide your answers preferably in English and in PDF and/or Word format. Respondents are not required to answer all sections and questions, although BEREC invites stakeholders to submit contributions that are as complete and detailed as possible.

All non-confidential contributions to the consultation will be published on the BEREC website shortly after the end of the consultation period. Please indicate if any part of your response should be treated as confidential. Alternatively, you can provide a non-confidential version of your response.

Responses should be addressed to PC_Data_Economy@berec.europa.eu by 14.00 (CET) on the closing date, 21/11/2018. Late responses will not be considered.

Please provide the name (and website, if available) of your organisation, as well as the contact information (name, e-mail and/or phone number) for a contact person. In the case of personal contributions, please provide your name, nationality and contact information.

Name of the organisation/person, website, nationality and contact information

ETNO – European Telecommunications Network Operators' Association

<https://etno.eu/>

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Please indicate the place(s) of operation of your organisation and the sector(s) in which your organisation mainly operates. Please explain how you are involved in the data economy.

Place of operation, sector(s), involvement in the data economy

ETNO is an industry association representing Europe's telecommunication network operators; it is based and operates in Brussels (Belgium).

ETNO advises its members and contribute to the industry's views on policy and regulatory issues of relevance for the data economy (e.g. privacy, data sharing, competition policy).

1. GENERAL ISSUES

The collection and analysis of data is not, by any means, a new phenomenon, as it dates back to the development of statistics. However, the Internet offers immediate access to information that can put data into context. The ability to track a huge variety of events, with a high level of detail, generates raw data in an unprecedented way that can be collected and transformed into valuable information. More specifically, the combination of raw data and analytical tools can reveal patterns, provide key insights. The generation and collection of data and its analysis, as well as the exchange of newly generated information, may pave the way for creating new business opportunities.

Question 1.1:

The term 'Data Economy' tries to capture the increase in the availability of data, the related business opportunities and the (potential) social value of the insights that can be generated. According to the EC report "Building a European Data Economy"², the *"data economy measures the overall impacts of the data market – i.e. the marketplace where digital data is exchanged as products or services derived from raw data – on the economy as a whole. It involves the generation, collection, storage, processing, distribution, analysis, elaboration, delivery, and exploitation of data enabled by digital technologies"*.

Do you agree on this general definition of the Data Economy? If you have an alternative definition or any comments on the proposed definition, please provide details below.

Answer to question 1.1

Definitions in the economic literature are very useful to understand the different dimensions of complex and dynamic concepts like the Data Economy. Therefore, choosing a single definition for policy purposes in this context is necessarily constraining and incomplete. Definitions such as the one proposed can be useful to formulate a basic understanding of economic realities, however, they are not necessary or appropriate for regulatory purposes.

In any case, the role of telcos in the data economy is so far still limited, considering the vast amount of different companies from a number of sectors participating in it and, especially, the prominent role of big digital players running data-centric business models. Indeed, markets within the wider data-driven economy are much broader than the telco sector. In those markets, players from different sectors compete with each other and telecom operators are the new entrants, working to be competitive but constrained by regulatory barriers that do not apply to OTTs.

Question 1.2:

Data is an essential input to many newly emerging services. However, it is hard to assess the individual value of a single piece of data. It might be also considered that, in the context of the data economy, a single piece of data has a negligible value by itself and, therefore, data will start generating added value only when a significant amount of information is processed and

² Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions "Building a European Data Economy" {SWD(2017) 2 final. Brussels, 10.1.2017 COM(2017) 9 final

structured in a meaningful manner. Insights derived from data, and thus its value, depend on the quality and reliability of data, as well as its ability to be combined with other data. Inherently, larger amounts of data tend to allow more far-reaching insights. The marginal cost of collecting digital data can also be particularly low (if not negligible); therefore, substantial economies of scale can be present. Moreover, the utilisation of data can lead to the provision of better services, and thereby increase the number of users, which in turn can generate even more data to be collected. Thus, the data economy is often associated with strong network effects, even sometimes leading to “winner–takes-all” situations.

Data has sometimes been referred to as the “new oil”, but a key difference is that data is non-rivalrous in consumption. That is, the same data about a consumer can be made available to many different companies, rather than only being used once: e.g. data on date of birth, gender, home address, telephone number, credit card details, etc. Even though data is essentially non-rivalrous, it cannot be regarded as a pure public good in economic terms because people or companies may be excluded from using it. For example, some types of data may be specific to a particular platform and can also be made exclusive through commercial or technical means.

Data is not a homogenous good and there are different types of “data” (e.g. personal and non-personal). Different types of data will in turn have different values to different types of businesses, as the value of data depends on its context and is affected by four key characteristics: volume, velocity, variety and veracity. For instance, the volume of data may be important when looking to establish patterns in consumer behaviour in aggregate. Conversely, the velocity of data – how quickly its usefulness depreciates – is more relevant to services that promote products based on what users are currently searching for.

In your opinion, what are the most important characteristics of data to be taken into account when analysing its economic properties? Are there elements missing in the previous list?

Answer to question 1.2

Data plays a critical and complex role in various digital markets within the Digital Economy. Data takes a different value depending on the provider, the purpose for which data is gathered, and the availability of the provider to process such data to generate worth insights.

Acting as input, output and price (or sui generis form of remuneration), its complex nature makes including the role of data into a competitive assessment a non-trivial task. Instead, it would require a broad and detailed analysis adapted to each case.

No matter what exact consideration we give to data, what it is undeniable is that the provision of seemingly “free” services is in reality a non-monetary transaction, a commercial activity which business model builds on the usage and trading of customer data. These kind of transactions are becoming as relevant as monetary transactions in the digitalized economy. With regard to contractual law and end-user protection, the characteristics of data as alternative means of remuneration has to be considered in the scope of analysing the Data Economy. This also refers to the upcoming EECC, which clarifies in the recitals that ECS are provided also against alternative remuneration, which particularly refers to the ECS-category of number-independent ICS. This not necessarily requires assessing the monetary value of data, keeping in mind that the application of end-user rights with regard to money-based

services neither depends on the amount of money (usually same rights apply irrespectively of the price level).

Data as substitute to money requires a reasonable application of end-user protection to data-based business models. Eventually, comparable protection standards have to be ensured and a non-discrimination of business models based on money as remuneration. Sector-specific and horizontal law has to be updated accordingly, to close this emerging gap in regulation.

Question 1.3:

Different types of data can be distinguished and a taxonomy of data is useful to structure the analysis of the data economy. For example, one common distinction is that between personal and non-personal data. BEREC would be interested in respondents' input regarding more detailed or alternative classifications that can be made, especially those that are more relevant in relation to the analysis to be done by BEREC.

What classification of data do you consider to be most relevant (in the context of BEREC work on the data economy)? Please elaborate below.

Answer to question 1.3

Similar to the definitions, there are many classifications in the economic literature that aim at explaining the economics of data, beyond the electronic communications sector. Therefore, in the context of the competences of BEREC, we highlight the role of data as remuneration when providing services to end-users.

Question 1.4:

The ability to access data may be important in terms of reinforcing existing network effects in certain circumstances. As a result, there may be concerns about the exercise of market power in online markets and the ability of firms with market power to foreclose or restrict competition. For instance, concerns could include:

- exclusive control of certain data that creates a significant barrier to entry;
- leverage of market power into adjacent markets;
- lack of competition over non-price features, e.g. privacy.

Which kind of competition concerns are likely to be of relevance in the data economy?

Answer to question 1.4

ECS providers are not dominant market players in the Data Economy. Their ability to gather and process raw data is deeply restricted by sectorial privacy rules that add up to horizontal data protection rules. This implies that, although ECS providers are working to be competitive in the Data Economy, telcos do not have any market power. Market power is held and exercised by large digital players other than classic telecommunications – not subject to any regulatory constraints that control or limit their activity along the value chain. Their market power results from the direct and indirect network effects generated by their data-driven business models. By contrast, network effects occurring within the telco sector are orderly tackled by interoperability obligations imposed by sectorial regulation.

Traditional ECS providers do not exercise any market power on the raw data related to their infrastructure because more precise and accurate raw data sets are available in the digital market from less regulated technologies (ex. Uber: <https://movement.uber.com>).

The ability to access data with a certain degree of exclusivity and to accumulate them should be considered as parameters to determine whether a firm has a market power, but it does not automatically imply neither market foreclosure intent nor foreclosure effect. An anticompetitive behaviour appears when a player which enjoys a dominant position in data-driven markets, leverages its position to maintain dominance in its core market or to extend dominance to other markets with the explicit effects of foreclosing competitors. Those anticompetitive conducts harm consumers and/or competitors.

These anticompetitive conducts can be properly addressed by competition law and policy, which however should be adapted in order to respond more swiftly, flexibly and effectively to cases of abuse of market power.

Question 1.5:

Do you think that competition issues regarding the power of market data can be sufficiently addressed by current competition law and the upcoming regulatory framework (EECC, GDPR, e-Privacy Regulation, PSI Directive, etc.)?

Answer to question 1.5

The legislative instruments mentioned in the question relate to other disciplines, not addressing competition issues in the ECS market. These relate to consumer protection, data protection and access to public information.

The legislation in force is sufficient to address issues with regard to the accumulation, analysis, control and processing providers make of data, and no further regulation is needed. However, there is a lack of regulatory balance between players that compete in the same markets for the same customers, as occurs for instance with GDPR and the e-Privacy Regulation, creating a significant competitive disadvantage for ECS providers.

In relation to private data, contractual autonomy and voluntariness are the best vehicles to accommodate the various needs of the parties concerned. There is no evidence (especially in IoT and M2M markets) supporting the existence of structural and persistent market failure that would justify ex ante regulation. Contract and competition law provide all necessary tools, as their flexible and decentralized approach is fit for purpose especially in light of the complex, still emerging and dynamic market environment.

Competition policy is fit for purpose to deal with possible market failures related to data markets, even if some adaptations in its application are needed.

2. ECS AS AN ENABLING FACTOR FOR THE DATA ECONOMY

Electronic communications services (ECS) are an enabling factor for the data economy, as they provide the infrastructure upon which the data economy is developing. For data to be collected and distributed everywhere, networks must be ubiquitous, reliable, interoperable,

secured and offer high speed transmission. Therefore, the development of ECS should both directly and indirectly support the growth of the data economy.

ECS providers can also develop innovations and new services that will allow them to play a new role in the data economy, going further than being the infrastructure on which the data economy relies. Some telecommunications network providers already offer services such as cloud storage and analytics solutions, which actors in the data economy can use to develop their businesses, but telecommunications network providers can also directly participate in the data economy by developing data-based services of their own. For example, they may offer mobile network location-based services. Moreover, with the development of the Internet of Things (IoT), ECS providers are enabling connectivity to billions of devices that can collect data.

This creates an opportunity for ECS providers to play a major role in the collection and analysis of a large volume of data. With the following set of questions, BEREC intends to identify the services and innovations provided by ECS providers that contribute to the development of the data economy.

Question 2.1:

Services provided by network operators can be assessed based on various parameters (latency, bandwidth, reliability, security, ubiquity, etc.). Considering that the development of the data economy is supported among others by the electronic communication networks, which parameters are the most relevant for the development of the data economy in your view?

Answer to question 2.1

The availability of ubiquitous, qualitative, reliable and secure infrastructure is essential. Various parameters are thereby important. Investment in very high capacity networks provides the infrastructures, networks and related services necessary for the data to be produced, transferred and exchanged, thus creating enormous opportunities for the data economy to develop and flourish.

That is why the main (if not sole) issue to address is how to create the right regulatory environment that is conducive to massive network investment in networks for electronic communications. This implies providing investors' with sufficient visibility, stability, and a reasonable long-term outlook for their return on investment. In the context of the Data Economy, this also brings about questions and issues regarding the monetization and value creation on the massive (mostly sunk) investments involved in building these networks.

In the global context of the Data Economy, the ability for telco operators to collect and process raw data is very limited. Sector-specific regulatory restrictions impede telco operators to enter into data driven markets competing on equal footing with OTT players, who compete in the same markets for the same customers but are not subject to the same regulatory rules. To date, the ability of ECS providers to compete in the Data Economy is severely hampered by the sector specific e-Privacy Directive and the possible e-Privacy Regulation that heavily reduce the legal basis for processing raw data compared with GDPR.

Furthermore, there is an evident difference between companies that are born digital and the ones that are working on the digital transformation. The "digital revolution" means a shift in all

sectors of the global economy, but in areas as telecommunication, at the core of the digital ecosystem, the impact is huge and demands time, resources and investment. For this reason, it is key to provide a regulatory framework that supports long-term investments and to allow telcos operators to compete based on equal conditions in the Data Economy.

Question 2.2:

What more can ECS providers do to help the development of the data economy? Conversely, do you identify any bottlenecks for the development of the data economy that are related to ECS providers and, if so, what, in your view, could be done to address this issue?

Answer to question 2.2

The possibilities for ECS to explore the Data Economy are described in answer 2.1.

The main bottleneck is the regulatory level playing field between traditional ECS providers on the one hand and OTT-0/OTT-1 and OTT-2 on the other hand. The current regulatory approach does not fit the seamless reality of the market. Traditional ECS providers could do more for the development of the Data Economy if the unjustified restrictive sector specific e-Privacy rules for metadata were aligned with the GDPR risk-based approach.

As any other sector in the economy, ECS providers already have and will continue to use internal data to optimize their own infrastructure and services in compliance with current regulation. There are no bottlenecks concerning the Data Economy for which traditional ECS provider could be responsible.

It is important to note that services like Gmail, WhatsApp, Skype, etc. are covered by the new scope of the e-Privacy Regulation proposal. However, a GPS-driven service will not be covered by Article 6 of the Regulation (processing of communications metadata), as it cannot be defined as ECS, despite the fact that these services process more granular location data than telecommunications operators. In consequence, the level playing field proposed by the Commission in the proposed Regulation is only partial and thus creates a bottleneck for a fair competition between telecom operators and OTTs.

This inconsistent data protection regime needs to be rebalanced in the perspective of building the competitiveness of the European industry on a global scale. Aligning GDPR and e-Privacy is indispensable to provide European telecom operators the flexibility needed to innovate in data-driven services while ensuring a high level of privacy protection. We therefore call for introducing the principle of compatible further processing in the proposal. Introducing this concept, which is in line with article 6(4) GDPR, would be a step forward in restoring the missing level playing field between telecoms operators and GPR-driven service providers.

ECS providers can develop their services to meet the specific needs they are able to identify for different users, but need flexible rules that are no more burdensome than objectively necessary to avoid a negative impact on the innovation process.

Question 2.3:

What kind of evolution do you foresee regarding the role of ECS providers in the value chain? For example, with regard to the development of the Internet of Things or mobile

network location-based services, could new revenue models for ECS providers emerge based on the data economy?

Answer to question 2.3:

ECS providers, being smaller players that have just entered into data-driven markets, have regulatory constraints that are not applied to big digital players. The role of ECS in the Data Economy is quite uncertain due to the lack of level playing field with regards to the use that, under data protection rules, ECS are able to do of data, particularly in the provision of digital services based on the processing of location data.

The efficient regulatory framework is a precondition for ECS to play a role in The Data Economy and to compete on a global scale. Current sector-specific privacy regulation (e-Privacy Directive) severely hinders the development of mobile location-based services, since the existing and proposed rules (e-Privacy Regulation proposal) for processing mobile location data are imposing strict conditions on operators (consent or anonymization requirement) vis-à-vis the more flexible framework of the GDPR.

Companies are investing, in the perspective of being able to reap benefits down the line. However, the prospects to get fair returns from their investment are yet unclear, given the existing regulatory constraints.

3. IMPACT OF THE DATA ECONOMY ON COMPETITION IN ECS MARKETS

The provision of electronic communication networks and services generates a significant amount of data that, in some cases, cannot be obtained by other sources. The availability of processing this data might create some opportunities for telecommunication operators. For instance, data can potentially be used to improve the services provided to the users, gain internal efficiencies, deliver innovative services, create new business models or, in the cases and conditions allowed by privacy regulation, commercialise this asset.

A distinction can be made between network or infrastructure data on the one hand and content or usage data on the other hand.

Data related to the network itself are of great relevance in optimising the network operations of telecommunications operators³. Analysis of this type of data can help to make network operations more efficient.

Telecommunications operators can also benefit from the analysis of usage data. For example, customer loyalty and churn can be examined with data analytics methodologies. The aim could be, for example, to identify the factors affecting churn and, based on these findings, take action to reduce it over time. Another area where data analytics could be of use is fraud detection. Consumers could also benefit from innovative products and services based on data collection and analysis. The development and implementation of smart home services, for example, could improve safety, energy efficiency and comfort.

³ For example, the analysis of topography data for planning network deployment can help increase the range and transmission capacity of mobile radio base stations.

The growing importance of data collection and analysis may also affect competition in the telecommunications sector. For example, ECS providers with a large number of customers could possibly benefit from economies of scale in terms of data collection and analysis. Moreover, some ECS providers are vertically integrated across different levels of the value chain and might thus benefit from economies of scope, as they act both as network operators in the fixed or mobile network and as service providers at wholesale and retail level. A telecommunications company with a broad product portfolio, for instance encompassing fixed network services, mobile services, IPTV or even Smart Home services, can collect significantly more data than those providing just stand-alone services, which it can then use to better serve their customers and optimise their business operations while reducing costs. Overall, having access to a wide variety of data may facilitate innovation or optimisation when combined with data analytics techniques. ECS and data services (such as cloud computing) may also be combined to make new service proposals that could affect competition dynamics.

With regard to mobile services, it should be noted that network operators have exclusive access to additional network data compared to resellers or MVNOs. Therefore, a question may arise about whether network operators are able to extend their advantages from (exclusive) data collection and analysis to other areas.

Instant messaging services and voice over IP (VoIP) services have been widely adopted by consumers and are increasingly competing with traditional telecommunications services, such as SMS or voice telephony. The Privacy and Electronic Communications Directive (2002/58/EC) established ECS sector-specific data-protection rules. This Directive will be replaced by the EU e-Privacy Regulation, which will then apply directly in the member states and will not need to be transposed into national law.

Question 3.1:

What is the significance of data for the telecommunications value chain today? How would you expect this significance to change in the future?

Answer to question 3.1

The use of data is growing exponentially, as data fuel automated decision-making systems. In the telco value chain, data may be useful for network operators to optimize their services and commercial offers for the direct benefit of their consumers to tackle fraud, improve risk management, decrease operational cost, improve visibility into core operations, internal processes and market conditions, discern trends and establish forecasts, cross-sell/up-sell products and service plans, analyse customer loyalty and wallet share, or build predictive models for fraud detection and customer exits. Customers, for their part, also would be benefit from better, simple and helpful services.

Meanwhile, the remuneration of data has become a substitute to the remuneration of money in the digital market for services. This particularly refers to number-independent ICS, which have become subject to sector-specific regulation in the EECC. A reasonable application of end-user protection to data-based business models is required, so that adequate end-user protection is applied in a non-discriminatory way regardless of the service and the kind of remuneration it is offered against, and to avoid providing incentives for undertakings to rely on the monetisation of data instead of charging a price.

Despite ECS providers' efforts to invest in the Data Economy, the collection and analysis of customer data is as of today not their main business case, since they cannot use communication data as their competitors at OTT-2 level because of strong regulatory restrictions. Therefore, ECS providers use standard commercial information as any other business in the economy and data available to them is not exclusive, and everyone has at their disposal several sources of data.

In light of the above, a sectorial approach is not appropriate in this regard. The significance of data in the entire digital market calls for horizontal solutions.

Question 3.2:

How are ECS providers making use of (anonymised) data? Are they buying/selling it from/to third parties? Please elaborate.

Answer to question 3.2

ECS providers make use of data according to the applicable regulatory obligations, especially related to privacy and data protection.

Question 3.3:

Are you aware of cross-sectoral initiatives carried out by ECS providers with regard to data analytics? Please provide examples of (big) data analytics projects/initiatives carried out by ECS providers⁴.

Answer to question 3.3

N/A

Question 3.4:

What is your view on how the use of data (including the combination of data services and ECS) may change the competition dynamics among ECS providers? Do you see any risk of leveraging market power, or conglomerate effects caused by the use of data in the telecommunications sector? If so, should the methodology to assess market power be reviewed to further consider access to data?

Answer to question 3.4

We do not see any change in competition dynamics within the telecom sector itself particularly vis-à-vis e.g. MVNOs. However, bottlenecks have been identified in relation to other market players other than classic telecoms, through asymmetric regulatory treatment of location data (derived from mobile networks vs. GPS-based), which would lead to a regulatory asymmetry that impedes telecom operators to compete in data-analytics markets on equal footing with other digital players. A better alignment of the current sectorial rules with the GDPR (i.e. via the proposed e-Privacy Regulation) is therefore of utmost importance.

Additionally, BEREC needs to consider that particularly number-independent ICS often base their business model on the monetisation of data instead of charging a price. Since many end-

⁴ As defined in the EECC, including providers of OTT-0 or OTT-1 services.

user rights are focused on and limited to services provided against monetary remuneration, those business models based on data as remuneration face less burdens related to end-user rights. In addition, this may lead to incentives for businesses to remunerate data instead of charging money – at least where those business do not face the same regulatory restraints.

The access to data should then be analysed in a broader scope than the ECS market, as it raises particular questions about market power of global internet players, unrelated to SMP in the ECS context. The telecom industry in Europe is so fragmented that possible “market power” and “conglomerate effects” relating to data in the ECS sector are irrelevant. On the contrary, data is the key asset of many OTTs and a potential source that may contribute to maintaining their market power, given the economies of scale that big digital companies enjoy, the large network effects they are able to internalise and the conglomerate effects that they can induce.

BEREC’s formulation of Question 3.3 is a very narrow way of looking at the competitive effects of the Data Economy. To assess market power, the dependencies along the entire ECS value chain have to be taken into account and regulation to promote competition dynamics, if any, must be horizontal.

Question 3.5:

Are there cases in which exclusive ownership of data or other potential hurdles related to data restrict competition or the development of new telecommunications business models? Please provide examples. Below are some specific examples of cases that may be of interest to BEREC:

- **Do you see any competitive differences with regard to data collection and analysis between MVNOs and MNOs?**
- **Do you see any competitive differences with regard to data collection and analysis between fixed line infrastructure operators and retailers that rely on wholesale access?**
- **Do you see any competitive differences with regard to data collection and analysis between “traditional” ECS and OTT-0/OTT-1 providers?**

Answer to question 3.5

No such competitive differences with regard to data collection and analysis between MVNOs and MNOs have been identified after decades of wholesale access in the telecom industry. ECS providers have non-exclusive access to customers’ data and this data is replicable. This also applies to network operators (as opposed to MVNOs or service providers) and converged operators (as opposed to mobile or fixed only).

On the other hand, OTT-0/OTT-1 providers are able to define detailed profiles of their users, as they collect and combine different data sources, including personal data, to enter in new markets or help existing suppliers to compete. ECS providers find it difficult to compete with those players in the collection and analysis of data because the regulatory obligations imposed on both types of actors are not the same—especially with respect to access, interconnection, interoperability, transparency, and data protection obligations. This makes the data available to network or convergent operators actually less valuable and useful than the data available

to non-ECS players. This imposes further constraints on the opportunities of value creation and ultimately on the competitiveness of the data-driven economy.

Question 3.6:

What opportunities and/or risks do you see for consumers linked to an increase in data collection and analysis in the telecommunications sector?

Answer to question 3.6

Data collection and analysis can have a very beneficial impact on end-users of ECS. Networks will be more efficient and respond better to their capacity and coverage requirements, and the commercial offers will be better tailored to their profile. There are also risks for the users, especially those related to privacy concerns, but ECS are bound to strict data protection and privacy rules.

Indeed, there are still differential treatments between number-based ECS, number-independent ICS and OTT services that are not ECS. As a consequence, telcos are under stricter sector-specific rules that do not affect all digital players. ETNO believes that non-ECS OTTs can gather data that can potentially be used in the provision of ECS. Therefore, a harmonization of the regulatory framework that establishes a level playing field within the Data Economy should be put in place.

Beyond data protection, consumers should rely on comparable protection standards in consumer law, irrespective of whether the provider chooses to remunerate data or money. Thus, a reasonable application of consumer protection standards for data-based business models is required. In this context, consumers' informed choice, enabled by effective transparency obligations, is the key. Consumers should be fully aware if they use a service that is not "for free" but based on the commercial processing of their data as a kind of remuneration. Also, they should be aware of their resulting contractual rights. This requires a horizontal approach.

4. NRAs' ECS REGULATORY ACTIVITY IN THE CONTEXT OF THE DATA ECONOMY

The emergence of the data economy is characterised not only by an increase in the quantity of data available, but also by the availability and use of data analysis tools (e.g. Apache Hadoop, SAP HANA, etc.) that are capable of analysing rapid real-time flows of data. These new data and tools can greatly influence how NRAs take regulatory decisions.

The use of data in increased quantity and quality by NRAs, combined with new analytical tools, may have the potential to significantly improve the quality of regulatory decisions in various aspects (e.g. consumer protection and empowerment, fostering competition and investment, monitoring the quality of services and network deployment/coverage and the assessment of market power).

Furthermore, in the context of an evolution towards an open government data ecosystem, defined by the re-use of public sector information (PSI) Directive⁵, NRAs could have a significant role in contributing to the economic and social benefits that may be possible. In fact, the electronic communications sector alone is responsible for vast amounts of data being generated/collected and the nature of such information may allow for significant benefits beyond its use for strict regulatory purposes.

This section therefore addresses the dimensions of the relationship between NRAs and the data economy in the context of NRAs' duties and responsibilities, as established by the new European Electronic Communications Code (EECC) and the proposal for a revised BEREC Regulation.

In adapting to the data economy, NRAs should consider how to leverage data in order to enhance the quality of their work, their decisions and the accuracy of regulatory analysis (e.g. market definitions or market power assessments) as a step towards "data-driven" regulation (increased use of available relevant data).

With the increasing volumes of data generated by customers and operators, the quality of data used by NRAs – not only existing internal data but also data that can be collected from operators (respecting existing principles, such as proportionality) – can also be improved. Additionally, data collected and generated by NRAs (when not subject to confidentiality clauses and when their publication is allowed by national legislation), may also be useful for different actors in the digital economy.

Question 4.1:

What is your view on how NRAs can use data to better perform their duties (e.g. consumer protection, fostering competition, monitoring the quality of services and network deployment/coverage, the assessment of market power...)? Can the use of digital tools improve the capacity for action? If that is the case, please provide further explanation, as well as any proposals you may have.

Answer to question 4.1

Data can improve the quality of regulation within the competences of BEREC: finding of SMP and imposition (or lifting) of remedies is an area where regulators should rely more on updated, factual data. In particular, BEREC should encourage NRAs to further increase intelligence on data-based business models of OTTs, based on the new option to request data from providers of number-independent ICS in the EECC. A better understanding of these business models is crucial to properly monitor ECS markets and apply adequate obligations where necessary. A

⁵ Directive 2013/37/EU of the European Parliament and the Council of 26 June 2013 amending Directive 2003/98/EC on the re-use of public sector information, as well as proposal for a directive of the European Parliament and of the Council on the re-use of public sector information (Brussels, 25.4.2018). COM(2018) 234 final 2018/0111 (COD)

lack of information from ICS was highlighted by BEREC in its assessment of the intra-EU call market as an impediment to an exhaustive market review.

Ex-post evaluation of the measures would also benefit significantly from a better use of data. Particularly, this is crucial in view of the review of the end-user rights chapter of the EECC.

Finally, NRAs can use own resources to develop or contract independent quality measurements that can improve transparency and make customer choice more relevant.

Question 4.2:

What kind of data, or which specific data, should NRAs collect and publish which could facilitate the development of the data economy?

Answer to question 4.2

Increased reliance on data should not represent an undue burden for operators or affect some of them disproportionately more than others. NRA initiatives on the re-use of data should be limited to data collected in the context of regulatory obligations (e.g., mandatory QoS), should respect intellectual property rights and the protection of trade secrets.

Question 4.3:

Under the new EECC (art. 22) NRAs shall conduct surveys on NGN deployment, including relevant information on operators' intentions to invest (planned network deployments, upgrades and extensions) and QoS parameters.

When this information is not available in the market, NRAs shall also make data from the geographical survey available and easily accessible to allow for its re-use (when not subject to confidentiality). Such data may be particularly useful for end-users as it can support their choices (e.g. allowing them to check for connectivity options in different areas).

Regarding this provision, which relevant data (and to what level of detail) should NRAs collect (e.g. as QoS metrics) and which techniques could be applied, both in collecting data and in making it available to end-users?

Answer to question 4.3

Art. 22 EECC stipulates new data collection competencies and obligations for many different purposes and potential user groups (comprising public as well as private entities), partially involving very sensitive data. Therefore, it is of utmost importance that, before any data collection occurs, its purpose, usage and access conditions are clearly defined. The scope of the data to be collected is to be defined depending on these criteria, following the principle of proportionality. These conditions should be defined only after a public consultation.

It goes without saying that private investment plans are business secrets and thus strictly confidential. Therefore, the legal basis of the related new competencies in Art. 22 to collect such sensitive data is and remains highly questionable. The potential conclusion that data on investment plans collected by NRAs on this (legal) basis no longer constitutes confidential data and can thus be made accessible to third parties, is inadmissible and must be prevented.

Any form of transparency on investment plans would seriously harm competition and market economy principles, and in the context of network deployment plans, of infrastructure competition in particular. Therefore, access to such data is not compatible with the basic principle of infrastructure competition.

Additionally, the effort for the collection of data has to be balanced. Undertakings, especially regulated ones, have to put quite a lot of resources in collecting and adjusting data for NRAs, especially if that data has to be solely collected and/or adjusted for the NRA' purpose. Therefore, the concrete usage of data has to be justified by the collecting authority by explicitly naming concrete benefits. Otherwise, the data should not be collected and NRAs should settle themselves with data that is already present because it was collected for other purposes.

Question 4.4:

The PSI Directive set the framework for the re-use of public sector information, as part of an open data policy, recognising it as a major opportunity to stimulate innovation, economic growth and social engagement, adding value to users and the society in general.

Along the same line, the draft reviewed BEREC Regulation⁶ includes a mandate to BEREC to enforce an open data policy. According to this provision, BEREC shall “*promote the modernisation, coordination and standardisation of the collection of data by NRAs. Without prejudice to intellectual property rights, personal data protection rules and the required level of confidentiality, this data shall be made available to the public in an open, reusable and machine-readable format on the BEREC website and the European data portal.*”

Intensified by digitisation, the amount (and types) of public data has vastly increased. Both businesses and citizens now expect data within the scope of the PSI Directive to be online, readily available under non-restrictive conditions and easy to understand.

How can NRAs and BEREC contribute to increasing the availability of data in the spirit of the PSI Directive and the reviewed Regulation? In your opinion, what specific data should NRAs and BEREC publish (e.g. QoS indicators, consumer complaints, coverage, usage statistics)?

Answer to question 4.4

The provided examples of data on consumer complaints or coverage that could be published are not convincing. It is not clear at all how publishing such data – especially complaints – could be helpful to support a Data Economy. BEREC should take into account that such data are partly confidential or highly sensitive, e.g. details on complaints and usage. In addition, BEREC needs to consider the already established broad publication requirements on QoS in

⁶ Article 2 of the Proposal for a Regulation of the European Parliament and of the Council establishing the Body of European Regulators for Electronic Communications. Inter-institutional File: 2016/0286 (COD).

the Open Internet Regulation and the EECC. Data on coverage are often already publicly available on a voluntary basis, e.g. coverage maps.

5. NRAs' EXPERIENCE APPLIED TO THE CASE OF THE DATA ECONOMY

The data economy is governed by different regulatory instruments that address various aspects, such as the protection of personal data (the General Data Protection Regulation), re-use of public sector information (the PSI Directive), guidance on private sector data sharing, the free flow of non-personal data and e-Privacy, among other issues.

However, the data economy and regulations on access to data are in general not in the regulatory scope of NRAs in the electronic communications sector. This does not necessarily imply that there is no role for NRAs with regard to issues in the data economy. As addressed in previous sections of this public consultation, many sectors are involved in the data economy. In this respect data economy concerns the economy as a whole. The impact of the data economy on competition dynamics for ECSs should be considered and ECSs are a key enabling factor for the data economy.

For their part, NRAs have gained considerable experience from monitoring ECS markets, analysing them and designing remedies to encourage competition and investment. Although different to data markets, there could nonetheless be synergies to be harnessed from NRAs' experience gained on ECS markets which may be useful in the context of encouraging competition and investment in the data economy.

In this context, BEREC is interested in areas where the experience of NRAs could be useful in addressing potential issues in the development of a data-based society in the future. As of today, powers on the data economy for NRAs are very limited as they are focused on ECS markets, however it can be useful for BEREC to envisage potential future areas where NRAs could share their experience to help the development of the data economy, such as:

- Monitoring the evolution of the data markets
- Encouraging the development of wholesale markets for access to data.
- Fostering interoperability obligations (to maximize network effects while weakening winner takes all effects) and data portability (e.g. oriented towards reducing consumers' switching costs when moving from one digital ecosystem to another)
- Fostering transparency and non-discrimination (concerning either just the dominant players or all players).

BEREC is therefore interested in collecting views from all actors on the potential need for the above mentioned tools in the context of the data economy. This could be in the short, medium and/or long-term, with the aim of addressing any potential bottlenecks for investment and competition that may not be sufficiently covered under ex-post competition law.

Question 5.1:

Do you consider the competitive conditions in data economy-related markets are optimal for the development of the data economy? For example, do you consider that there are efficient data-sharing mechanisms in place?

Answer to question 5.1

Competitive conditions in data economy-related markets are complex due to the competition of many different players coming from different sectors, with unlevelled regulatory regimes, and active through different business models. Multi-sided free-based business models offer obvious advantages in obtaining massive amounts of data: network effects, feedback loops between the sides, expansion to many different (sometimes connected) activities, etc.

Nevertheless, those markets go far beyond the telecommunications sector, the telco companies being small new entrants with difficulties to compete with the big digital players, mainly due to the (explained) regulatory restrictions to use data and the different business models. For this reason, we do not consider that telco regulators are best positioned to deal with those issues that are clearly broader in scope and expand across different industries. Notwithstanding, a good contribution by telco regulators could be to participate in broader fora in order to raise awareness about the difficulties that telco companies encounter when trying to compete in those markets.

Data-sharing mechanisms is a very complex issue, which could improve competitive conditions only under very specific conditions. Firstly, because the most valuable data for a company are the data generated in the provision of their own services; third party data are difficult to integrate in own systems and processes. Secondly, any data-sharing mechanisms should be defined, monitored and driven by the industry, which better knows about those difficulties and the measures and possibilities to overcome them. Thirdly, any over-regulation could indeed chill innovation. Fourth, the data-sharing mechanisms of global players could always be scrutinised by competition authorities who should monitor those markets.

For B2B, existing data-sharing mechanisms are considered sufficient. Contractual autonomy and voluntariness are the best vehicles to accommodate the various needs of the parties concerned. We consider that contract law provides all necessary tools, as it presents a flexible and decentralized approach that is fit for purpose especially considering the complex, still emerging, and dynamic data market environment. Any attempts to legally force regulated access to private data, including in the field of B2G data sharing, would be misguided and detrimental. This would discourage market entry, investments, and innovations and thereby jeopardize the development of a future-proof and flourishing European Data Economy.

In conclusion, ETNO does not identify any issues regarding traditional telecom operators. Needless to say, any market failures on data-sharing mechanisms of global players with relevant market power in the data economy should be carefully monitored by competition authorities.

Question 5.2:

If you consider that the competitive conditions in data economy-related markets could be improved, which of the potential tools measures (along the lines of the ones listed in the introduction to this section) would, in your view, be appropriate to foster the development of the data economy? Please also explain if you consider such tools to be ineffective or if you consider that they could even harm the data economy's development.

Answer to question 5.2

ETNO does not see any evidence requiring any of the measures listed above, given there is no evidence of any market failure in ECS markets and BEREC would not have competences to address the issues of completion in the global data economy.

Question 5.3:

Do you see the need for closer cooperation between the NRAs (that have a regulatory focus on ECSs) and other regulatory bodies, such as data protection authorities, competition law authorities (National Competition Authorities, which usually focus on ex-post regulation), consumer protection authorities or other bodies, on issues related to the data economy (such as data portability, market power assessments, merger control, rules on the treatment and sharing of data, etc.)? Please specify the area of potential collaboration, the roles that could be played by NRAs, within their competence, and which regulatory body or institution to collaborate with.

Answer to question 5.3

On regulatory matters in relation to data protection and privacy, e.g. data portability, competences have so far been clearly defined (e.g. data protection authorities being responsible under GDPR). As for the e-Privacy Regulation proposal, competences have yet to be decided by the legislator (e.g. NRAs or DPA or potential cooperation).

As elaborated above, many services in the digital market and particularly referring to number-independent ICS are based on the commercial exploitation of data. Since consumer protection law needs to be adjusted to also cover these business models, various stakeholders (e.g. DPAs, consumer authorities) need to align in order to ensure a consistent approach, e.g. on data protection and contract law.

Question 5.4:

In relation to data markets, which are the key issues that should be taken into account when assessing competition dynamics? What should be the geographical scope for data markets (national/European/international/other) and what drivers should be taken into account?

Answer to question 5.4

As the digital market is global, the European dimension is the minimum level of geographical scope. Furthermore, this matter is not strictly related to ECS; therefore, it is out of the scope of intervention of NRAs.

Nonetheless, NRAs contribution to foster the Data Economy should focus on guaranteeing a level playing field for telco companies in Data Economy markets. NRAs' more effective contribution would be to reduce regulation on telecom operators, taking the economics of the global digital economy into consideration in their assessments.

Question 5.5:

In general, how can NRAs contribute to address competition/regulatory issues in order to foster the transition to a data economy?

Answer to question 5.5

NRA can contribute by ensuring a level playing field when enforcing the end-user protection standards applicable to ECS.

See response to 3.1. and 3.5. on data base business models that require a reasonable application of consumer protection standards.

Question 5.6:

Is there any other issue in relation to the application of NRAs' experience to the data economy that you would like to add?

Answer to question 5.6

N/A

6. OTHER ISSUES

This section covers any other issues that have not been addressed in previous sections/questions and which stakeholders consider to be of potential interest to NRAs in the context of the report that will be prepared by BEREC.

Question 6.1:

Is there any additional issue not included in previous questions that you would like to address? For the sake of classification, please, differentiate between:

- 1) Issues in relation to ECS regulation under the powers for NRAs in the new Electronic Communications Code;**
- 2) Areas where NRAs or BEREC could collaborate with other public bodies or organisations in the context of the data economy when applying existing regulation for the data economy; and**
- 3) Any additional issue relevant for NRAs that is not addressed in the existing regulation applicable to ECSs and/or the data economy.**

Answer to question 6.1

N/A