1. What is data?
Data fulfils countless functions for individuals, companies and the state. **Multiplicity of data definitions** reflects this variety. In general, the discussion about ‘Big Data’ and ‘data-driven economy’ concerns information that is stored in a digital form. For instance, an airplane generates data on altitude, mileage and fuel consumption. Data plays a role in the production of goods as well as for storing the location of cell phones. Data is highly diverse in nature. The **information hidden in data is context-dependent**. Various combinations of the same numerals or letters can acquire completely different meanings. Thereby, data varies considerably in terms of importance and economic value; taking this diversity into account is essential for any regulatory action. Abstract norms that can generally apply to any data-related context are, therefore, unthinkable. One particular category of data is personal data – i.e., data that, in a certain context, allows to identify a natural person. Such data is subject to the special data protection regulation. It appears difficult, and somewhat artificial, to draw a line between personal and non-personal data, especially, as the possibilities for personal identification constantly evolve. Nevertheless, such conceptual distinction is essential. **Personal identification triggers the need for personal protection in favour of the individuals concerned; the regulatory debate is, therefore, different in this regard.**

2. How does data differ from material goods, and why is the distinction relevant for the debate? **Is data the ‘oil’ of the 21st century?**
Data has **entirely different characteristics than material goods**, such as crude oil. Data is intangible, non-exhaustible, and can be easily duplicated and used by multiple parties simultaneously. Unlike oil, data, as such, is not a scarce good. However, in special circumstances, some information can only be provided by a single source.

**New findings and knowledge that can be derived through the analyses of existing data, especially large datasets**, can benefit different aspects of social life and serve various purposes, which often cannot be defined beforehand.

The ‘new oil’ analogy is, therefore, misleading: The specific characteristics of data and the broad range of socially valuable uses imply that, as a precept, data should be allowed to circulate freely. Exclusive allocation to a particular right holder would, at the outset, constrain the range of possible beneficial applications.

3. What is meant by ‘data ownership’, and what is the state of the current debate at EU and national level? **What role does personal data play in this regard?**
Ownership provides full discretion as regards the exercise of the right to the right holder (i.e., the right to exploit, change, destroy, as well as to obtain benefits that an owned asset can generate). Allocation of ownership right has a far-reaching effect: **Ownership provides absolute protection for the right holder**, i.e., the rights can be exercised and enforced against anyone and not only vis-à-vis contractual parties.

It is a common misconception that an owner of a data generating device (e.g., a mobile phone user or a car driver) or a device manufacturer (e.g., a mobile phone manufacturer or a car manufacturer) can ‘own’ data in a legal sense. **Ownership rights can only be recognised and provided by law.** However, a ‘data ownership right’ does not currently exist either at EU or Member State level, or any other industrialised country.

**Should introduction of ‘data ownership’ be discussed, the debate needs to differentiate between ownership of personal data, on the one hand, and**
‘ownership’ of data that is independent from personal identification, on the other hand. The former is already covered by comprehensive data protection regulation.

4. What role does the discussion over ‘data ownership’ play with regard to personal data? Does the claim ‘My data belongs to me!’ imply ‘data ownership’?

Personal data is subject to protection under data protection law (the EU General Data Protection Regulation (GDPR) that shall apply as of 25 May 2018). The constitutional requirement behind is the need to protect informational self-determination of the parties concerned, so that any citizen can decide as to what data about him/her can be collected and processed, and by whom. Data protection law necessitates the consent of data subjects or another legal basis for data processing, and sets a statutory framework that provides for specific rights, such as the rights of access to and erasure of personal data. Such data protection rights allow an individual to control flows of data related to him/her. However, they do not vest ownership rights in a data subject in the aforementioned sense. The claim ‘My data belongs to me!’ is therefore misleading: it can be fulfilled without introduction of ownership in personal data. What is, at most, necessary is to strengthen control of individuals over ‘their own data’ as envisaged by law. Experience shows, however, that the majority of individuals readily grant the required consent in order to be able to use digital services, without much consideration of own interests in data protection that are safeguarded by law.

In view of such willingness, considerable concerns arise as to what could be the practical consequences of creating a new ‘data ownership’, especially, if it can be enforced vis-à-vis any company in the digital economy, whose services the individuals concerned want to use. In particular, powerful market players (such as global social networks and internet search engines), that are capable of influencing the user conduct, could become even stronger due to the new right. The idea of entitling those individuals, whose data is used, to partake in benefit sharing appears illusionary, not to mention the practical difficulties of its implementation.

5. Are there other mechanisms that can enable the parties concerned to control ‘own’ data?

Yes, data protection law incorporates other mechanisms that allow users of online services to exercise far-reaching control over ‘their own’ data. The GDPR will further strengthen this protection. Individuals concerned can request the erasure of personal data (Art. 17 GDPR), for instance, if data storage is no longer necessary, or if an individual has revoked his/her consent. In this case, the service provider (data controller) must erase the data and, if necessary, inform other data controllers also processing relevant data about the request for erasure (the so-called ‘right to be forgotten’).

Moreover, an individual has the right to data portability (Art. 20 GDPR) and can obtain personal data concerning him/her in a structured format and, even more, request to have such data directly transmitted to another service provider. Individuals are, therefore, in the position to ‘carry away’ own data, for instance, from one social network to another. This can strengthen competition between service providers without hindering business models by introducing a ‘data ownership right’.

6. What is the debate over non-personal data (‘industrial data’) about, and what is the state of the debate?

Regulation of data has been debated intensely over the past two years in the EU and has been considered within the framework of the free flow of data initiative, which is implemented as a part of the Digital Single Market strategy. The debate concerns the design of a cross-sector regulatory framework that can boost the potential of the digital economy.

In order to gather evidence on the functioning of the data markets, the European Commission conducted a public consultation in the spring of 2017 as well as commissioned several studies. The objective was to identify obstacles for innovation and competition and, if necessary, to propose measures to eliminate them. The consultation mainly concerned machine-generated data that is generated by computer processes, applications or services or sensors, and without direct human intervention. So-called ‘smart products’ equipped with sensors play the central role in the fourth industrial revolution. ‘Smart machines’ and digitally
connected consumer goods in the Internet of Things as, for instance, self-driving cars, revolutionise industrial manufacturing as well as everyday life of all citizens.

The European Commission presented a range of possible regulatory instruments to be considered that can facilitate access to and sharing of industrial data, provide incentives for investment and minimise lock-in effects. Among such possible instruments, the Commission discussed a ‘data producer’s right’. As evident from 380 submissions, the reaction was predominantly negative: the vast majority of the respondents oppose a regulatory intervention, in particular, by introducing ownership-like rights.

Moreover, neither of the studies carried out upon the Commission’s request so far proved the existence of a market failure that could justify the introduction of a data producer’s right or ownership rights in data.

7. Is there a need for protecting the interests of market participants, and how can the economic interests of persons that contribute to the creation, collection and analysis of data be protected?

Absence of ownership rights in data by no means implies that the interests of market participants, in particular, so-called data producers, are currently not protected. On the contrary, a wide range of mechanisms is available to protect economic interests at stake (as also supported by the results of the EU public consultation and earlier studies).

Companies that offer digital services or market smart products can protect their business models and investment in collecting data, in particular, through contractual arrangements. Unauthorised third-party access to data can also be precluded by technological measures of protection. In other words, de facto control over data enables companies to conclude contracts regarding access to data. De facto control over data and contract law form a sufficient basis for the development of data markets.

The initiative of the European Commission to review the existing legal framework in terms of its suitability for the data-driven economy is welcome. It concerns not only considerations regarding potential future legal initiatives in the field of contract law but also a public consultation running until the end of August 2017 on the application and impact of the Directive 96/9/EC on the legal protection of databases. Besides, the implementation of the Directive on the protection of undisclosed know-how and business information (2016/943/EU) by Member States (due by 9 June 2018) could address specific concerns related to data-driven economy.

8. Are there other grounds for ‘data ownership’?

No. In particular, it would be highly speculative to assume that introduction of ‘data ownership rights’ would create additional incentives for generating data or creating new products and services based on data analyses. Besides the lack of empirical support and doubtful practicability, it is important to emphasise, what counterproductive, negative consequences introduction of ‘data ownership rights’ could entail under the current market conditions.

Transaction costs would likely increase substantially as, when negotiating access to data, the contracting parties would also need to clarify whether the parties, who exercise control over data, are also entitled to grant access to third parties as potential ‘data owners’. Moreover, creating ‘data ownership rights’ can create imbalances with regard to the bargaining positions of the contracting parties, in particular, if ‘data ownership’ is allocated to the already superior contracting party.

Furthermore, introduction of ‘data ownership rights’ would require to conceive comprehensive exceptions to protect against unjustified restraints of competition. This would create a considerable potential for tedious judicial disputes. Instead of promoting digital economy and enabling access to data, not least in the public interest, introduction of ‘data ownership rights’ would have exactly the opposite effect.
9. What is the way forward?

The actual benefit of data arises from the information and knowledge contained therein that can be derived through data analyses. Such information should not be subjected to general ownership rights, without a special justification such as in the case of patent rights.

Anyway, the existing regulatory instruments, such as the Database Directive and the Directive on protection of trade secrets, need to be regularly reviewed in terms of their effectiveness and suitability to promote the development of the data-driven markets. Such review, as well as personal data protection, should target specific problems regarding in particular the functioning of data markets.

In this regard, the focus should not be on a general ‘data ownership right’: It is not the rules of ownership that enable free flow of data, but the adoption of rules on access to data. Such targeted rules should be debated intensely. Sector-specific access rules can address particular scenarios where legislative intervention is needed to enhance access to data.

10. Should the question of data ownership be addressed at Member state level?

No. Data and data markets have no borders; therefore, regulation – if necessary at all – should be initiated at EU level. Action at Member State level can trigger a chain reaction of political particularism that can lead to the fragmentation of the internal market as well as welfare loss.

Introduction of ownership rights in data only by individual Member States would also most likely negatively impact the development and international competitiveness of the national economy of those Member States.

Two position statements issued by Max Planck Institute for Innovation and Competition on this topic:


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