**Fuelling the European Digital Economy:**

**A Regulatory Assessment of B2B Data Sharing**

1. **INTRODUCTION**

The institutions of the European Union (EU) have recognized digital technologies and data as levers for relaunching European economic development. As part of the third pillar of the Digital Single Market (DSM) Strategy, the European Commission has taken steps to increase the generation, transfer and use of digital data. Over recent years, several EU policies and actions have focused on the need for establishing a flourishing European data economy.

In particular, data sharing between private players has been identified as one of the drivers for building a European data economy, due to its essential role in generating increased data-based innovation. However, as of today, business-to-business (B2B) data sharing conducts are rare in the single market and their scarcity represents a major weakness of the EU data economy. According to the Commission, at the end of 2017, 78% of data in the EU were classified as closed, while only 2% were considered open and 20% had been shared at least once, including company acquisitions and joint ventures. Furthermore, empirical evidence shows that EU companies with large datasets generally do not externalize their processing, but rather prefer in-house data analytics capabilities. Even when analyses are indeed subcontracted, they are rarely followed by a further reuse of data.

Among other documents, the recent report drafted for the European Commission and published on April 4, 2019, *Competition Policy for the Digital Era*, focuses on data sharing between private players, stating that: “In an increasing number of contexts, data access is key for the competitiveness of firms and their opportunities to innovate.” The report acknowledges a causal relationship between data sharing within companies and potential innovation, recognizing that the former may lead to the introduction of “a new or improved product or process (…) that differs significantly from the unit’s previous products or processes and that has been made available to potential users (product) or brought into use by the unit (process).”

The Commission is indeed intent on advancing the European data economy, a goal for which it has developed a policy aimed at incentivizing B2B data sharing. Thus, an analysis of whether this policy of the EU corresponds to a framework that effectively enables B2B data sharing is of particular interest, especially if any specific changes are to be proposed. To address this issue, this article discusses the factors that favor or hinder B2B data sharing practices in the EU, including regulation and lack of regulation, guidelines, and deficiencies of the relevant framework.

The article begins in Section 2 by defining the phenomenon of B2B data sharing, and identifying its essential elements and relevance. Reviewing all the relevant EU documents, Section 3 proceeds to elucidate the EU policy aimed at facilitating data sharing between private players, in order to understand its rationale and its limitations.

Having clarified the relevant policy, the article discusses the factors that can have a positive or negative impact on B2B data sharing initiatives at the EU level. Recognizing these factors will contribute to a better understanding of what kind of measures should be introduced to incentivize effective B2B data sharing. In particular, Section 4 considers those factors that have a negative impact on B2B data sharing, and Section 5 identifies and analyzes factors that produce a positive one. Section 5 also examines the business models currently in use in B2B data sharing operations. Sections 4 and 5 also distinguish between those factors, whether positive or negative, that have direct effects on B2B data sharing and those that have indirect ones. For the purposes of this article, factors or measures are considered to have a direct impact when they produce a strong effect on B2B data sharing initiatives. An indirect impact occurs if the factor under analysis modifies, or does not modify, the relevant framework in a way that produces as a secondary effect hindering or favoring B2B data sharing.

To complete the analysis, Section 6 investigates the conditions under which antitrust law can affect B2B data sharing. In the Conclusion, this article weighs all the issues and factors raised in Sections 4, 5 and 6 and discusses whether further measures to incentivize B2B data sharing is need to be adopted.

1. **FRAMING B2B DATA SHARING**

This article views data sharing as the sum of three actions: the making available of data from one company; the access to said data by one or more other companies; the reuse of this data by companies that accessed the data, usually through a non-rivalry approach, in that the company accessing the data is not a direct market competitor of the data source.Thus, with respect to data sharing, data is considered not only an output, or a product generated through a process; more importantly, it is seen as an input, capable of generating and/or improving processes, products and services.

Additional elements of data sharing can be identified from business models currently used for B2B data sharing (see Section 5) First, companies engaging in data sharing initiatives do not necessarily provide access to a complete dataset. Indeed, the proportion of data shared by a company depends on its business strategy. Second, data sharing need not be, and often is not, free of charge. It may involve the payment of a certain price or the provision of a service as remuneration by the company accessing the data. Third, companies are free to determine with which entities or individuals they are willing to share their data. Although there may be regulations governing access to certain data, data holders generally have control over the data they are sharing and the conditions of use they apply.

In addition, a common element of data sharing initiatives is the potential simultaneous extraction of value from the same dataset by two different companies. If a company holding a certain set of data allows another company to access and reuse that dataset, the data owner may assign a completely different value to its data than does the second company. In essence, the company making some of its data available to another company may indeed be extracting value from the same data. Moreover, a company that allows reuse of its data does not necessarily incur losses in data quality. In fact, it often does not even incur any competitive disadvantages, since the company usually engages in developing and improving entirely different processes, products and services than does it data sharing partner.

In terms of effects, data sharing is essential for supporting data-based innovation. In a B2B relationship, data sharing can have innovative effects for both partners. A company that is unable or unwilling to collect data on its own, may, when granted access to existing data, be able to disruptively or incrementally innovate processes, products or services that it otherwise would not be able to accomplish, or that whose quality would otherwise be lower. At the same time, the data producers would be rewarded for sharing data the value of which they may have already exploited within their own processes, products or services. In light of this situation, the debate on how to encourage a European data economy must give priority to effective data sharing incentives, since it is widely recognized that in order to maximize the value of data, it must be widely available. In particular, increasing access to data held by private players, while not contravening the applicable rules, is recognized as crucial for developing innovative AI applications.

1. **B2B DATA SHARING WITHIN THE EU AGENDA**

In 2013, the European Council published its strategic agenda for achieving a more data-driven economy. In particular, the Council called for the adoption of measures aimed at advancing the digital single market and data-driven innovations, recognizing that big data and cloud computing are “important enablers for productivity and better services” and that “cloud computing should improve access to data and simplify their sharing.”Following the Council’s input, in 2014, the Commission published the Communication *Towards a Thriving Data-Driven Economy*, in which it framed the main difficulties facing the data sector in Europe, emphasizing the need to put an appropriate policy framework in place, to provide an environment of legal certainty and to facilitate business operations involving big data. Key characteristics of a thriving data-driven economy include: the availability of datasets from private players across the economy; the necessary infrastructure to enable businesses to access data; the existence of knowledge and skills that enable companies to engage in data sharing and reuse; and the development of common standards for technologies and data interoperability.

This drive to create a more efficient data economy was renewed in 2015 with the launch by the EU of the Digital Single Market strategy, which regards the maximization of “the growth potential of the digital economy” among its pillars. The European Commission then proceeded to tackle what it perceives as two major roadblocks to this goal: unjustified restrictions on data circulation in the EU and legal uncertainty related to data sharing. Therefore, while obstacles to data circulation need to be removed via regulatory instruments, uncertainty concerning data sharing operations needs to be clarified through non-binding instruments.

In accordance with this planned approach, no regulations or proposals of regulation have been discussed in relation to data sharing tools. The EU is not considering regulating data sharing *horizontally*: that is, by harmonizing its legal framework. At this stage, the EU considers it sufficient to develop non-binding measures aimed at granting actors in the market the best possible conditions for sharing data through the freedom of contract. In essence, the focus of the EU is not on controlling data sharing, but, rather, on organizing access to data from interested private parties, providing them with better conditions to do so. This direction is justified by the intent not to limit the freedom of business of the parties involved. At the same time, B2B data sharing in the EU is affected by several acts of *vertical* regulation, depending on the type of data which companies intend to share, some of which will be considered in Sections 4 and 5 below.

Regardless of what type of regulations are under discussion, within EU official documents, B2B data sharing is a recurring issue with respect to building a European data economy. According to these documents, B2B data sharing plays a major role in the development of a vibrant EU data economy because market players often data transfers in order to extract the maximum value from private sector data. In particular, in its 2017 Communication on *Building a European Data Economy*, the European Commission, for the first time, clarified the necessity of developing and encouraging effective access to data via non-legislative measures. This document also presented the draft of a plan on how non-personal data rights should be addressed in contracts in order to increase the legal certainty for companies and to mitigate the effects of divergent national regulations.

The 2017 Communication was followed immediately by a public consultation on *Building a European Data Economy*. It is notable that the stakeholders answering the online survey agreed with the Commission’s approach and influenced the decision to adopt non-regulatory measures aimed at incentivizing data sharing. This approach resulted from the stated intention to consider the effects from data sharing to be mainly beneficial and to regard the existing regulatory framework as adequate, with the imposition of horizontal legislation on data sharing deemed premature. Relevant stakeholders’ answers also highlighted the importance of safeguarding investments made in the production and analysis of data and the limited use of data sharing outside economic sectors.

A later Communication in 2018, *Towards a Common European Data Space*, generally confirmed this strategy on B2B data sharing. It established the key principles of action to be taken and committed to keeping the dialogue with stakeholders open. In particular, the Commission stressed the need to regularly assess whether a non-regulatory approach toward B2B data sharing, consisting of principles and codes of conduct continued to remain sufficient to “maintain fair and open markets.”

A comparison between the discussions in 2017 and 2018 on the tools for incentivizing data sharing reveals a narrowing of the measures under consideration. Indeed, the 2017 Communication debated, *inter alia,* the opportunity to develop: a guidance on incentivizing businesses to share data; technical solutions for reliable identification and exchange of data; default contract rules; a data producer’s rights; and a framework based on access to anonymized data in return for remuneration. The 2018 Communication categorized the measures for incentivizing data sharing into three more specific categories: (i) fostering the use of application programming interfaces to simplify access and use of datasets; (ii) developing recommended standard contract terms; and (iii) publishing EU guidelines.

Along with the 2018 Communication, the European Commission published a guidance on sharing private sector data (the “Guidance”). In its introduction, the Guidance clarifies that it does not represent a statement of law and that it does not bind the Commission with respect to the application of EU law. The primary purpose of the Guidance is to create a level playing field for stakeholders by framing the key principles and by providing a toolbox of legal, business and technical aspects of data sharing for companies that are data holders or users.

Having now discussed the documents on which the EU policy aimed at incentivizing data sharing initiatives is based, Sections 4 and 5 below will analyze the EU legal framework that currently governs data sharing initiatives. In particular, Section 4 will focus on the regulatory and non-regulatory factors that hinder data sharing, while Section 5 will explore those factors that favor it.

1. **FACTORS WITH A NEGATIVE IMPACT ON B2B DATA SHARING**

One can distinguish factors that have a direct or indirect negative effect on B2B data sharing activity. The main factor with a directnegative effect is the need to safeguard data within B2B data sharing operations and to comply with the General Data Protection Regulation (GDPR). In particular, data controllers must respect the additional obligations demanded by the GDPR, even if the dataset to be shared contains an insignificant amount of personal data. In addition, multiple factors with an indirect negative effect are identifiable and can be grouped into three main areas in which the current framework is deficient: *ad hoc* standards, licensing models and mechanisms for establishing the value of datasets.

*§4.01 Factors with a Direct Negative Impact*

When examining the factors with a direct negative effect on data sharing, the first issue to be addressed should be the wide scope of the GDPR’s application, which includes both datasets of personal data and mixed datasets. The harmful effect of such a broad application is linked to the difficulty of distinguishing whether the data contained within a dataset involved in a sharing initiative is of a personal or non-personal nature. Indeed, while the application of the GDPR to the entire data sharing initiative depends on such a distinction, this distinction is vague and difficult to draw in practice. As a consequence, only datasets composed of solely non-personal data would fall under the EU Regulation 2018/1807 rather than the GDPR. This situation has a relatively strong impact, given that the value of datasets depends, among other things, on their variety, and that the majority of datasets are mixed, resulting from technological developments such as the internet of things, artificial intelligence and technologies enabling big data analytics.

In abstract terms, the GDPR and EU Regulation 2018/1807 on the free flow of non-personal data might find parallel application to mixed datasets, *i.e.*,datasets composed of both personal and non-personal data. However, Article 2, paragraph 2 of EU Regulation 2018/1807 clarifies that when personal and non-personal data in a set are inextricably linked, the application of the GDPR should prevail. Therefore, the GDPR should fully apply to the entire mixed dataset, even when personal data represent a small and secondary part of the dataset, if the data are not distinguished or distinguishable. Although the concept of *inextricably linked* is not defined by the two regulations, the Commission, in the Guidance on EU Regulation 2018/1807, clarifies that the phrase can refer to a situation wherein a dataset contains personal data as well as non-personal data and separating the two would be either impossible or deemed economically inefficient or technically unfeasible by the data controller. Therefore, the *non-separability* of data contained in a set seems to depend mainly on the determination of the data controller, who must weigh two different sets of costs: direct cost, for distinguishing the data; and indirect costs amounting to the reduction of value of the resulting dataset(s).

Furthermore, non-personal data are defined *a contrario* with respect to personal data and, in a variety of cases, business players must cope with uncertainty about the exact boundaries between personal and non-personal data. Moreover, the case law offers a broad interpretation of personal data, which appears very comprehensive in nature, thus making it difficult to exclude the application of the GDPR or, more generally, to identify the relevant rules to be applied to a concrete situation. Therefore, the scope of the definition of personal data may restrict the number of cases in which the Regulation on the free flow of non-personal data should be applied rather than the GDPR, making information not relating to an identified or identifiable individual rather rare.

In summary, considering the costs and technical complexities of separating data as well as the uncertain nature of data, in concrete terms, it is extremely difficult to differentiate categories of data within a dataset in concrete terms. Furthermore, neither of the two Regulations under discussion forces business players to make such a separation within datasets they control or process. Consequently, as the Commission explicitly recognizes, a mixed dataset is generally subject to the GDPR. In practical terms, this means that a dataset is subject to the obligations of data controllers and processors and enjoys the rights of data subjects. For example, both the company that shares the data and the one that receives them must ensure an adequate level of security throughout the overall dataset, in compliance with Article 5(f) of the GDPR. In this sense, the application of GDPR to any data sharing operation concerning mixed databases, which are the majority, entails a direct negative factor and substantially inhibits companies from starting data sharing initiatives.

*§4.02 Factors with an Indirect Negative Impact*

An analysis of the factors that impede data sharing could begin with the difficulty of identifying the regulatory framework with which to comply. Because of this confusion, companies are disincentivized to begin engaging in data sharing collaborations due to the risk of infringing relevant rules of which they may not be certain. The difficulties in complying with the applicable legislation are exacerbated by an EU framework composed of sets of rules which operate with a sectorial approach. In particular, different rules apply to different categories of data: personal data (GDPR); non-personal data (Regulation 1807/2018); customer bank account data (Second Payment Service Directive); government data (Open Data Directive). In this sense, the lack of coherence and consistency in the measures adopted by the EU legislative body is an indirect obstacle to data sharing initiatives, since it exponentially increases the costs of compliance that business players must bear.

The lack of coherence of the relevant legal framework is linked to a degree to another indirect obstacle to data sharing: the existing legal uncertainty with regard to certain categories that would simplify data sharing. One of these uncertainties, the non-harmonization of data localization rules, has been overcome by EU Regulation 2018/1807 (see Section 5). However, many unclear categories remain, such as the control of data holders over their own data and datasets, which is linked to the debate on the opportunity to introduce a data right and on the possible uses of intellectual property rights regarding data and datasets.

Further factors with an indirect negative impact on data sharing arise from deficiencies in the market structure. First, there are no accepted parameters for establishing the value of a dataset. In addition, the very activity of attributing a value to a dataset is inherently complicated, given the difficulty of identifying it *ex ante*; that is, before accessing the actual dataset (see, also, Section 6).

Moreover, there remain several technical barriers against data sharing, chief among which is the lack of common standards regarding data format and the variables of datasets. These deficiencies deter interoperability and portability between datasets. As a consequence, data standardization and technical harmonization are commonly recognized as essential for facilitating the reuse of data, while the current EU infrastructure is considered inadequate with regard to this issue.

A partial exception to the lack of harmonization can be found in the Fintech sector, where a sector-specific portability rule, the access to account rule, a compelling form of data access, has been introduced by the Second Payment Service Directive (PSD2). This rule requires technical interoperability to be effective. In particular, the access to account rule relies on the use of open application programming interfaces (EU Second Payment Service Directive APIs) that enable consumers to share their account data with authorized third parties (on APIs, see also Section 5 below). Therefore, the implementation process of such mechanisms will be decisive in determining the success of the PSD2.

A secondary set of indirect obstacles that falls into the category of the deficiencies of the market infrastructure is the lack of data sharing culture, solid infrastructure and expertise within EU companies, in particular small and medium-sized enterprises. Furthermore, companies are unaware of the benefits of data sharing, and consequently show little trust in this kind of operation.

*§ 4.03 Conclusions on the Factors with a Negative Effect*

In conclusion, this overview of the elements with a negative impact on B2B data sharing allows us to identify a need to balance and reduce the transaction costs that companies are exposed to when they engage in data sharing initiatives. In particular, as seen in Section 4, with respect to those factors with a *direct* negative effect – mainly the broad scope of application of GDPR – a better coordination of the existing set of rules, as well as a clearer regulatory environment concerning data sharing should be promoted. In addition, enhancing the certainty of the relevant legal framework would effectively help in increasing the market’s trust and awareness of the data economy potential.

Regarding the factors discussed that have an *indirect* negative effect on data sharing, structural measures should be adopted. First, data sharing should be simplified in technical terms by promoting and incentivizing the adoption of standards and, thereby, the interoperability of datasets. Competition law also plays a role by preventing the possible abuse of dominance by standard controllers (see Section 6). Second, *ad hoc* license models and parameters to establish the value of a dataset should be specified.

1. **FACTORS WITH A POSITIVE IMPACT ON DATA SHARING**

The factor that can be identified as having a direct positive effect on data sharing is the Guidance on private sector data sharing, cited in Section 3 above, which helps clarify the principles and relevant business models in the context of B2B data sharing. A positive indirect impact on B2B data sharing through rules that facilitate the data holder *ex ante* can be attributed to three different regulations: the EU Database Directive, the GDPR and EU Regulation 2018/1807 (see Section 5.02 below).

*§5.01 Factors with a Direct Positive Impact*

As mentioned, the European Union is not considering the adoption of binding measures requiring B2B data sharing. The decision of data producers and controllers to engage in data sharing operations remains up to them, as does the choice as to which data to share, with whom, and under what conditions. As a result, all B2B data sharing initiatives are currently being implemented through contracts. The Guidance is the only document that clarifies the B2B data sharing arena within the EU, albeit partially. In particular, the Guidance provides companies with principles and standard rules that they can implement in their data sharing contracts.

The Guidance provides five principles, three of them aimed at simplifying data sharing and increasing the trust of stakeholders toward this conduct, and the remaining two focusing on market dynamics. According to these principles, stakeholders should enter into data sharing agreements which first identify who has access to the data and what uses are allowed in a transparent manner. Then, the agreement should recognize when several parties contribute or have contributed to creating the data. Furthermore, the need to protect commercial interests and trade secrets of both data producers and data users should be addressed. For market purposes, data sharing agreements should strive to ensure undistorted competition when exchanging commercially sensitive information and to minimize the data lock-in, thus enabling as much data portability as possible. In essence, the Guidance systemizes the relevant principles and provides private players with a clear toolkit for preparing their data sharing contracts, even if no single one of these principles on its own is capable of modifying the current situation and producing a breakthrough in data sharing initiatives.

The Guidance also provides private players with a useful overview on the business models in use within B2B data sharing initiatives and their particularities. It should be noted that the Guidance does not introduce any new factors or instruments, nor does it produce any significant modification to the relevant framework. In its undeniably useful role as a manual for data sharing activities, the Guidance is, however, constrained by the actual legal framework and does not provide for any innovation in this context.

An additional factor with a positive influence on B2B data sharing, which already existed but was systematized by the Guidance, is the fact that business models did evolve within the data sector, notwithstanding the inertia of policy makers and legislators. Furthermore, considering the early stage of development of the European data economy and its growth potential, new business models for B2B data sharing will most likely emerge in the future.

To date, B2B data sharing occurs through a variety of forms and employs different business models, including the simplest ones, such as data monetization, which is a one-sided approach whereby a company generates additional revenue (including in the form of service provision) by sharing data with other companies. The data market, on the other hand, relies on the role of trusted intermediaries that bring together data providers and users to exchange data on a secure online platform. In this model, intermediaries are remunerated on the basis of the data transactions that take place on the platform. An additional alternative is the use of industrial data platforms, which are based on a collaborative and strategic approach to data exchange within a small group of companies. Under this model, companies voluntarily decide to establish closed and secure environments to facilitate the development of new products and/or services and/or to improve their internal efficiency. Data tend to be shared free of charge on such platforms, but fees may also be considered. An alternative model is the so-called open data policy, which can be used when companies choose to share their data free of charge to encourage the development of new products and/or services. The most common and flexible business model for data sharing initiatives is based on technical enablers, which are released by specialized companies dedicated to making data sharing possible through a technical solution. These companies obtain revenues from the creation, use and/or maintenance of the technical solution, and not from the data exchanged. It is also possible for a platform to develop its own technical solution or for a number of platforms to develop a common one.

Among the technical enablers, the Application Programming Interfaces (APIs) protocols that define how software components communicate among each other play a crucial role. It is possible to distinguish among: public, or open, APIs with interfaces easily accessible by external parties; private, or closed, APIs, which are indeed meant to remain inaccessible; and partner APIs, a hybrid between public and private APIs which are limited in their openness (e.g., access to third parties is limited to APIs’ back-end functionalities). APIs currently are the most common technical way to share B2B data. Their number has been growing dramatically since 2010 and their role is increasingly important in the field of data sharing. Indeed, APIs have the potential to facilitate interoperability between systems by allowing software applications to exchange datasets and data flows and by identifying the data to be shared and the format in which they will be shared. Furthermore, APIs can enable the inclusion of specifications for different datasets and manage technical aspects concerning access rights. In addition, as mentioned in Section 3, the 2018 Communication of the Commission acknowledged the incentive to use APIs as one of the main drivers to simplify access and use of datasets. However, there are no clear rules on the characteristics that APIs must share. Specifically, while some industries have established an understanding as to which APIs to employ, in many others, no consensus has been reached as to how APIs should be chosen and whether open standardized ones would be preferable.As mentioned, the standardization of API platforms is essential for improving the interoperability of the systems adopted by different companies and thereby significantly facilitating the sharing of data. The importance of standardizing API platforms increases even more in light of the observation that the current dearth of standards pushes companies to develop private API platforms and additional technical data transfer tools aimed at pursuing specific commercial interests and which may not comport with the objective of producing pro-competitive effects in the market. Furthermore, APIs managed by competitors can be used as a tool to further collusion (see Section 5).

If the current trajectory of the development of APIs entails some risk of negative effects on data sharing, a most likely positive direct effect will occur as the result of the specification of model contract conditions created from a data sharing support center, with which the Commission has already planned to actively participate. The data sharing support center, launched in July 2019, is collecting existing best practices in use for the different types of data sharing agreements, and it should provide business players with contractual instruments which comply with the existing regulatory framework and, at the same time, ensure the protection of both market competition and of the strategic interests of the parties involved.

*§5.02 Factors with an Indirect Positive Impact*

Three different regulatory measures can be identified that could produce an indirect positive effect on data sharing.

First, in specific situations, the Database Directive could provide the data controller with a right to its database. While the Database Directive establishes the protection of databases by copyright if they are original, it also rules that non-original databases can be protected under certain conditions with the use of a *sui generis* right: i.e., a specific property right for databases that is unrelated to other forms of protection, such as copyright. The goal of the Database Directive is to safeguard the position of database makers against misappropriation of the results of their financial and professional investment. The investment protection is guaranteed by the right to “prevent extraction and/or reutilization of the whole or of a substantial part, evaluated qualitatively or quantitatively, of the contents of that database.” However, the scope of application of the *sui generis* database right is very narrow, as it concerns only the overall dataset, or a substantial part of it, and not individual data or sections of the dataset and it does not involve the data production but only the dataset compilation. In essence, it protects only the structure of the database, although its development involves a significant degree of investment.

The second and third legislative measures, the GDPR and the Regulation on the free flow of non-personal data are simplifying the circulation of data and, therefore, the circumstances in which data controllers operate. Indeed, both the GDPR and the EU Regulation 2018/1807 establish a general principle of free movement of personal and non-personal data. The main difference in the two sets of rules lies in the justifications that are offered for limiting the free movement of their respective data spheres. According to the Regulation on the free flow of non-personal data, free movement may be limited by national authorities *only* on the grounds of public security in compliance with the principle of proportionality. In contrast, the GDPR acknowledges other reasons for limiting the movement of data, stating that, “the free movement of personal data […] shall neither be restricted nor prohibited for reasons connected with the protection of natural persons with regard to the processing of personal data.” This means that, in principle, other reasons can be considered. This difference between the two regulations means that EU member states have more freedom of action when restricting the free flow of personal data under the GDPR than they have when restricting the free flow of non-personal data under Regulation 2018/1807. As a consequence, an obligation of personal data localization for a data controller might stem from a reason other than that of the protection of personal data, which would not be valid under EU Regulation 2018/1807, because it is not based on public security. Paradoxically, then, the data controller might be limited in moving only a part of its mixed dataset. Considering the already mentioned complexities and costs in distinguishing the data within a set, the result would most likely be that the restriction on the free flow of the overall dataset would prevail, since the mixed dataset composed of *inextricably linked* data would fall under the scope of GDPR.

It is also recognized that opening the possibilities for transferring data would facilitate data sharing operations. In particular, business players would be able to engage in cross-border sharing operations. Looking at the two regulations, they are intrinsically different with respect to data portability. In a business-to-consumer relationship, Article 20 of the GDPR confers upon the data subject the right to bring personal data concerning him or herself from one service provider to another. In contrast, Article 6 of EU Regulation2018/1807 provides for a self-regulatory approach, with voluntary codes of conduct which, if adopted, would enable a professional user to transfer information not concerning an identified or identifiable natural person to another service provider in a business-to-business relationship. Therefore, individuals, in the exercise of their professional activities, are not affected by the portability right provided for by the GDPR. In this sense, in its preamble, the same EU Regulation 2018/1807 clarifies that individuals already benefit from the existing EU law, while the ability to switch between service providers is not facilitated for those users acting in the course of their business or professional activities. Furthermore, the European Data Protection Supervisor has highlighted that in the situations of mixed datasets, containing both personal and non-personal data, it must be ensured that the data portability from a professional will not affect the rights to data protection of any data subject involved.

*§ 5.03 Conclusions on the Factors with a Positive Effect*

Looking at the elements which may directly or indirectly generate positive effects on data sharing, it seems that those currently in place are unable to produce a groundbreaking impact on data sharing initiatives. First, the Guidance is an important document, acknowledging the key principles and business models in place, but it does not offer any further certainty or novel tools. The formation of contractual standards could represent a significant step forward. Second, the scope of the Database Directive is limited to very specific cases, and it does not provide data holders with an effective tool for controlling their own data. Finally, the situation created by the combination of the GDPR and EU Regulation 2018/1807 presents many uncertainties. The cost of complying with these sets of rules and the lack of interoperability between datasets might nullify the positive effects of the free flow and portability of data.

As a concluding observation, it should be mentioned that private initiatives, which partially address the system’s weaknesses, as they deal with the technical and organizational obstacles to data sharing, should be considered among the factors that could produce a positive effect on data sharing, even if these private endeavors are not dependent on EU initiatives. Indeed, in the absence of an institutional intervention by the EU, the industry is slowly developing standards and best practices applicable to data sharing on its own. An example of this development is the much discussed Data Transfer Project, initiated by the Google Data Liberation Front in 2017 and joined by Facebook, Microsoft, Twitter and, in July 2019, Apple. In particular, the Data Transfer Project is aimed at creating an open source, service-to-service data portability platform. One of the effects of such a platform would be to enable users to move their online data without downloading and re-uploading them. The initiative is based on the development of a common framework with an open source code that could be translated and made compatible with other online platforms using a system of data adapters and APIs released by the platforms. Therefore, by enhancing data portability and increasing interoperability between datasets, the still ongoing Data Transfer Project would reduce the infrastructure burden on both providers and users. However, private initiatives cannot be compared with systemic interventions of legislators or policy makers in terms of impact. In fact, the standards and practices developed by private players, who are focused on their own specific strategic interests, may not align with the public interest. Moreover, these private initiatives carry the risk of creating multi-speed situations which would exacerbate gaps between industries.

1. **ASSESSING THE ROLE OF COMPETITION LAW IN INCENTIVIZING B2B DATA SHARING**

Examining the official documents published by the European Commission (see Section 3 above) from an antitrust perspective, data sharing emerges as a key element for advancing toward a European data market, with competition law having a certain relevance in this context. In particular, in the 2017 Communication, the Commission deemed general contract law and competition law as sufficient for addressing the issue of data sharing in the EU. The Commission also recognised that “where the negotiation power of the different market participants is unequal, market-based solutions alone might not be sufficient to ensure fair and innovation-friendly results, facilitate easy access for new market entrants and avoid lock-in situations.” In addition, as mentioned previously, the 2018 Communication and the subsequent Guidance included provisions for ensuring undistorted competition when exchanging commercially sensitive data among the general principles for data sharing contracts.

The report *Competition Policy for the Digital Era*, prepared by a team of expert for the EU Commission and published in May 2019, retraces the ways in which competition law can contribute to the development of the data economy. Among other things, the report highlights the need to define circumstances and conditions under which dominant companies, and in particular dominant platforms, are required to grant access to their data.

In general terms, antitrust law and competition authorities cannot affect the structural characteristics of the markets and, for the purposes of this paper, of data-driven markets; nor can they intervene in the sense of reducing the cost of accessing data. This general rule is contradicted only in exceptional circumstances that justify the application of the so-called essential facility doctrine (EFD).

The EFD is based on the assumption that a company with a dominant position in the relevant market, under certain conditions that make it possible to consider a facility essential, is required to share it with anyone requesting it, including its competitors. Generally speaking, for the EFD to be applicable, four conditions should be present: the infrastructure to which access is being denied must be indispensable for economic activity in the relevant market, since there are no current or potential substitutes; there must be no objective justification for denying access; the holder of the facility must be in a position to reserve a secondary market for its own benefit as a result of the refusal to contract; and it is likely that the competitor being excluded from the market would supply a product or service not yet present on the market itself.

In 2017, the Commission clarified that there was no justification for exempting the data market from the application of the essential facility doctrine. Data-based markets, however, do not seem to possess the conditions required for the application of the EFD. Considering the first requirement, the indispensability of the resource, there is no agreement on the conditions under which data can be considered an indispensable rather than a replaceable asset. In particular, according to the Court of Justice of the EU, the access to an input is indispensable if there are obstacles of a technical, regulatory or even economic nature capable of making it impossible or extraordinarily difficult to duplicate it. In this sense, if data can be acquired or purchased in some other way, then they cannot be considered indispensable assets. Moreover, it seems difficult to identify a conduct aimed at excluding a competitor in the data market, because the facility owner should already be active in the downstream market and, by refusing access, would seek to reserve this market for itself. This does not seem to be a recurring scenario in the case of a refusal to share data. With regard to the non-introduction of a new product to the market, a company is usually unable to determine which product or service can be developed through the reuse of a specific dataset before actually accessing it. Meeting the requirement of the “new product” is therefore even more complex and problematic. Those who want to access the data should not only be able to detail precisely which data they need to access, but also the specific purpose for which they need the data. A competitor can hardly demonstrate the need to access certain data, and, even less so, the need of that data in particular for developing a new product for the market, as it does not have access to the data itself. In essence, it seems impossible to state *ex ante* which of the many items of information in a dataset are essential for generating a new product and, more generally, whether there is essential information in the dataset.

Finally, even if the conditions necessary to apply the essential facility doctrine were adequately verified, a system of compulsory licenses in the data market would be difficult to manage for various reasons, such as the difficulty in clearly identifying the object – that is, the specific dataset – which must necessarily be shared, and in defining the conditions, as well as the temporal framework, of the sharing.

In light of the above considerations, it is extremely difficult to demonstrate that a facility in the data market is essential for competition, even more so when defining the parameters of the essential facility itself. This interpretation appears to conform to what the above-mentioned report, *Competition Policy for the Digital Era*, concluded: “[T]he ‘classical’ EFD may not be the right framework to handle refusal of access to data cases, as the doctrine has been developed with a view to access to ‘classical’ infrastructures and later expanded to essential IPRs.”

It is also possible to conceive of a simplified reading of the application of the EFD to the data sector, whereby a case-by-case check on the applicability of the EFD would be based on two central questions. First, is it possible to identify an alternative source of data that allows access to a dataset comparable to that at stake? Second, if there is not an alternative data source, is such a lack due to the low value of the data or to the concrete complexity in collecting and analysing them?

However, to fully understand the limits of the application of the essential facility doctrine to the data market, it is also necessary to consider the general reasoning of the EFD, according to which forcing companies to share without proper justifications would entail a serious risk to investment incentives. The balance must never be disproportionate in the sense of striving to increase competition *per se* to the detriment of investment protection. Therefore, in this author’s opinion, the EFD is not generally applicable to the big data phenomenon.

Another question involving competition law that needs to be addressed is whether the Fair, Reasonable and Non-Discriminatory (FRAND) licensing system can be applied within the data economy and thus provide a yardstick of a dataset’s value. In this sense, the Commission, in its Communication, *Building a European Data Economy*, considered the possibility of developing a framework based on fair, reasonable and non-discriminatory terms for determining remuneration in the context of data exchanges between companies. Specifically, the FRAND license requires the patent holder to grant the use of a patent to interested parties on fair, reasonable and non-discriminatory terms. Originally, the obligation to grant FRAND licenses was based exclusively on competition law and on avoiding any abuse of market power. Currently, however, FRAND licenses may have a contractual basis. In this sense, most standard setting organizations (SSOs) require patent holders granted licenses under FRAND conditions to include a patented technology in a standard essential patent (SEP). In case of refusal by the patent holder, the latter will not be included in the standard. Therefore, the matter of exchange is composed of two parts: the inclusion of the patent in the standard and the guarantee that FRAND licensing conditions are applied, notwithstanding the dominant position of the patent holder.

Applying these categories to the European B2B data sharing situation, a specific dataset may be considered essential for the development of products or services in a given market. The complexity of defining the non-substitutability of a dataset has already been discussed. However, in some circumstances data, in particular industrial data, are not substitutable with other data. An example would be a company that prevents a provider of ancillary services, such as maintenance of certain products or services, from accessing information on those same products or services. On the other hand, however, there is a substantial difference between data that are not substitutable and an SEP. The latter is based on an agreement concluded by the operators in a specific market, the members of the SSO. Therefore, the mere control of a dataset by an entity can actually be equated to a simple patent and not to an SEP.

Even if the adoption of FRAND licenses can be considered appropriate in B2B data sharing, the absence of generally shared rules on what parameters are necessary for a license to be considered fair, reasonable and equitable and, therefore, on the actual scope of the acronym FRAND should be noted. In particular, it is difficult to conceive of how royalties would be determined, also due to the uncertainty about the information contained in the dataset and about the new information that can be drawn from existing data. In essence, because it is difficult to define the value of the dataset, it is equally difficult to establish the appropriate price for the license. All these considerations highlight the shortcomings of the FRAND system which, at present, does not seem particularly useful in a dynamic system such as that of data sharing between companies.

It is clear that all these considerations do not exclude the role that competition law might play *ex post* – in the case of sharing or lack of sharing activities – pursuant to Articles 101 and 102 of the Treaty on the Functioning of the European Union (TFEU). Indeed, data sharing agreements may certainly produce anti-competitive effects on the market, due to provisions they may contain (TFEU 101). Data sharing agreements forged between competitors should be assessed on a case-by-case basis in order to verify whether they produce anti-competitive effects. In particular, APIs can be deployed to engage in anti-competitive practices, which are difficult to detect. Furthermore, it is possible to conceive of a scenario in which the holder of a standard is putting an exploitative or exclusionary abuse in place (TFEU102). Data holders dominant in the relevant market in which they reuse the data can also carry out further exploitative or exclusionary activities by, for example, selecting what data to share and with whom without objective justification, in order to stifle any higher quality competition.

1. **CONCLUDING REMARKS**

The importance of boosting B2B data sharing to advance the European data economy is evident, as it would facilitate the extraction of maximum value from data and, as a consequence, increase innovation. In this sense, encouraging private data sharing is a key objective of the European Commission under the third pillar of the DSM strategy. To this end, the Commission has developed a policy based on the adoption of non-binding measures, operating within a body of regulations that affect B2B data sharing. The objectives of this article were to identify this policy’s strengths and weaknesses, linking the policy to further regulatory initiatives influencing data sharing, and to understand in what manner the EU legal framework should be changed.

In an effort to identify the aspects of the policy and the regulatory context in which it operates, the article considers that the Guidance effectively clarifies the relevant framework, providing private parties with a set of principles and models for sharing data. In addition, the Guidance, together with relevant Communications and reports carried out at the Commission’s behest, identifies existing obstacles to data sharing and proposes possible scenarios for curbing these obstacles. Moreover, some of the provisions contained in the general regulatory framework that may apply to data sharing initiatives actually simplify them indirectly: especially, the free movement of personal and non-personal data, the portability of personal data and the *sui generis* database right. Finally, the initiatives begun by private operators play a central role, since they represent an evolution of the existing business models and move in the direction of increasing the interoperability and portability between datasets.

However, this article’s analysis demonstrates that the policy initiated by the Commission to encourage data sharing between companies is not effective and that the existing regulatory framework cannot be considered one that encourages B2B data sharing transactions. In fact, the Commission’s policy seems unable to significantly affect the current situation and provide for a radical increase in B2B data sharing.

First, this article has highlighted the considerable legal uncertainty to which operators are exposed. Operators must comply with multiple parallel regulations, particularly when the sharing involves a mixed dataset. In this sense, the goal of ensuring the coherence of the system should be pursued, not just by ensuring that personal data protection always prevails, but also by taking into account B2B data sharing and reducing the uncertainty about the rules. Moreover, many of the traditional legal categories struggle to find application in the field of data. The category of ownership is particularly vulnerable, but other tools, such as those developed by antitrust law, are also deeply affected.

Second, the lack of standards for data formats and dataset variables, which may be partially addressed by private initiatives, is critical. More concrete incentives can and should be implemented by, for example, investing in the development of sector-based formats while, at the same time, preserving the role of antitrust law in preventing abuses by standard holders.

In light of the above, to make the Commission’s policy more effective and thereby establish a friendly environment for B2B data sharing, more coherence and greater certainty regarding the existing EU regulatory framework and actions needed to tackle the existing technical barriers are necessary.

Furthermore, an element that may actually incentivize B2B data sharing may be found in the adoption of contractual models fully compliant with the existing legal framework, which, as mentioned, is part of the Commission plan. These models should be ready-to-use for private players and, at the same time, ensure the preservation of the strategic interests of each party and of competition. In addition, the specification of parameters to determine the value of data might be considered, as well as the development of *ad hoc* categories and theories for the data industry.

The corrective mechanisms identified to date for increasing B2B data sharing consist of a combination of soft law and self-regulation. However, these measures sometimes prove inadequate. For example, with the PSD2 Directive, the EU has recognized the need to establish an obligation for banks to share payment data with third service providers, subject to the customer’s consent. In particular, within PSD2, the EU regulator established mandatory access to bank account data, and stakeholders have been asked to enact such a rule via self-regulation. The EU legislator has established an obligation to share the data in other sectors as well. For example, under the Commission Delegated Regulation (EU) 2017/1926, “[T]ransport operators, infrastructure managers and on-demand service providers – both private and public – will have to provide travel and traffic data about the relevant mode of transport to a centralised national access point for such data.”

Therefore, there are cases in which data must necessarily be shared and the Commission should pursue the identification of such areas. When auto-regulation and soft law are not sufficient and there is a public interest in sharing data, *ad hoc* regulation should intervene.

Considering other national models, the French law 2016-1321 provides outstanding suggestions. This law obliges commercial companies to open specific categories of data in their possession under certain conditions. In particular, the common element of the categories is that they are data of *public interest* and they include, for example AAA. To take another example, outside the EU, on October 29, 2019, the Australian government announced the introduction of a new mandatory data sharing obligation, through primary legislation, for motor vehicle service and repair services providers. In particular, this mandatory scheme “would provide a level playing field in the sector and allow consumers to have their vehicles safely repaired by the repairer of their choice” and would produce a beneficial effect on the overall market, and on small businesses and consumers in particular. The Australian legislation justified all the mandatory obligations by referring to the fact that the voluntary system of data sharing which existed was ineffective.

In conclusion, as this paper has suggested, a number of actions should be taken by EU institutions to incentivize B2B data sharing: the increase of certainty and consistency of the relevant regulatory framework; the investment in the development of standards and of technical facilitators which do not hinder competition; the specification of ready-to use contract models for B2B data sharing; and the introduction of *ad hoc* sectoral regulation when data need to be shared for a public interest but are often not in the existing framework.