

Using Competition Law and Designing New Access Regimes to Force Industrial Data Circulation Between Companies in the EU Digital Single Market

Citation for published version (APA):

Cuomo, A. (2019). Using Competition Law and Designing New Access Regimes to Force Industrial Data Circulation Between Companies in the EU Digital Single Market. *Roma Tre Law Review*, 2019(2), 27-52.

Document status and date:

Published: 01/01/2019

Please check the document version of this publication:

- A submitted manuscript is the version of the article upon submission and before peer-review. There can be important differences between the submitted version and the official published version of record. People interested in the research are advised to contact the author for the final version of the publication, or visit the DOI to the publisher's website.
- The final author version and the galley proof are versions of the publication after peer review.
- The final published version features the final layout of the paper including the volume, issue and page numbers.

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USING COMPETITION LAW
AND DESIGNING NEW ACCESS REGIMES TO FORCE
INDUSTRIAL DATA CIRCULATION BETWEEN
COMPANIES IN THE EU DIGITAL SINGLE MARKET

ABSTRACT. The present paper aims at shedding light on two of the many regulatory approaches recently proposed by the EU Commission to adapt the existing EU legal framework to the changes brought about by the digital economy. Today digital data have become a fundamental resource for any kind of business, but while personal data already have a complex regime under EU data protection law regulating their circulation, there is much legal uncertainty about the circulation of non-personal, or industrial, data. According to the Commission, one thing is however certain: new rules should be put in place to enhance the circulation of industrial data between private actors, so that more companies can benefit from the improved opportunities of data analytics.

The first approach proposed by the Commission is looking at the industrial data circulation from an antitrust perspective. The main question will be whether non-consensual access to dominant undertakings' industrial datasets can be granted to their competitors through Article 102 of the Treaty on the Functioning of the European Union (TFEU).

The second approach proposed by the Commission is taking legislative action to design new access regimes to create, under given conditions, obligations forcing companies to open their industrial datasets to other firms. The main question will be which main guidelines EU lawmakers should follow to properly design such regimes.

CONTENT. 1. Introduction: Enhancing Industrial Data Circulation Between Companies – 2. Enhancing Access to Industrial Data Sets through Article 102 TFEU – 3. Enhancing Access to Industrial Data through Non-consensual Data Sharing Mechanisms – 4. Conclusions

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1. Introduction. Enhancing Industrial Data Circulation Between Companies

The relationship between technology and law is notably an utterly complex one. This is due to the typical disruptiveness brought about by the former in human societies: the application of new technologies has the capacity to bypass outdated legal regimes and to open up previously unexpected scenarios where new economic activities can rapidly flourish, altering the structures of existing markets or even creating brand new marketplaces. Even though the digital revolution might today be reshaping the way economic value is produced, the role of regulators will anyway stay unchanged: correcting market failures such as monopoly power, negative externalities, incomplete information and any inefficiency in the allocation of goods and services in order to maximize social welfare.¹

Digital data are infinite and machine-readable pieces of information representing aspects of this world. From an economic perspective, these huge volumes of information disclosed by individuals or gathered by connected devices, – referred to as “Big Data” – have become a fundamental resource for any kind of business, as it can lead to new knowledge, drive value creation, and foster new products, processes, and markets.

In 2015 the EU Commission launched the EU Digital Single Market Strategy, with the purpose of enabling the best possible access to the online world for both individuals and businesses.² Since digital data, as an information good, is in many respects similar to a public good, it is fundamental to ask what legal rules are necessary in Europe to enable the digital economy to fully realize the social benefits of this technological, economic, and social revolution. First, digital data are “not-rivalrous” in use, since the marginal costs of an additional use of data is zero.³ This means that, after data are collected, one company using them does not exhaust their value at once, such data being

1 G. MAJONE, *From the Positive to the Regulatory State: Causes and Consequences of Changes in the Mode of Governance*, *Journal of Public Policy*, 17, 1997, p. 139 at 141.

2 EU Commission, *A Digital Single Market Strategy for Europe*, 2015, <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A52015DC0192>, p. 3.

3 W. KERBER, *Rights on Data: The EU Communication ‘Building a European Data Economy’ from an Economic Perspective* in S. LOHSSE, R. SCHULZE AND D. STAUDENMAYER *Trading Data in the Digital Economy: Legal Concepts and Tools*, Nomos Verlagsges, 2017, p. 109 at 116.

still potentially useful for further processing by other firms. Second, data are excludable goods, meaning that it is possible for firms holding them to prevent others from having access to them without authorization.⁴ It is exactly this characteristic that allows data holders to make data object of transactions, by shielding them from third parties and determining the terms and conditions under which access can be granted.⁵

This analysis will only focus on the circulation of one species of the genus “digital data”: non-personal data, also referred to as industrial data. Notoriously, personal data already have a very complex legal regime in the EU legal framework, mostly contained in the General Data Protection Regulation (the GDPR), which substantially establishes limitations to companies’ freedom to collect, use and sell such information.⁶ The expression “industrial data” refers to data created and used in industrial and commercial scenarios, but excludes any personal information covered by GDPR.⁷

In the EU market economy, based on the principle of freedom of contract, the main source of industrial data sharing is through contracts. Industrial data are traded by private actors as immaterial goods or commodities through contracts that are typically drafted under the consensual licensing agreement model. In such manner, the data holder unilaterally imposes conditions and requirements, which the licensee is obliged to comply with. The licensor maintains his strong competitive advantage by not transferring data to the licensee, but agreeing to give him access for a certain scope and for a certain time.

4 S. LOHSSE, R. SCHULZE AND D. STAUDENMAYER, *Trading Data in the Digital Economy: Legal Concepts and Tools* in S. LOHSSE, R. SCHULZE AND D. STAUDENMAYER *Trading Data in the Digital Economy: Legal Concepts and Tools*, Nomos Verlagsges, 2017, p. 13 at 15.

5 J. DREXL, R. M. HILTY, L. DESAUNETTES, F. GREINER, D. KIM, H. RICHTER, G. SURBLYTE & K. WIEDEMANN, *On the Current Debate on Exclusive Rights and Access Rights to Data at the European Level*, 2016, https://pure.mpg.de/rest/items/item_2339820_16/component/file_2339821/content, p. 3.

6 Regulation (EU) 2016/679 of the European Parliament and of the Council on the Protection of Natural Persons with regard to the Processing of Personal Data and on the Free Movement of such Data, 2016, <https://eur-lex.europa.eu/legal-content/en/TXT/?uri=CELEX%3A32016R0679>. The GDPR can be defined as a data governance framework applicable to undertakings’ processing of “any information relating to an identified or identifiable natural person.” See Article 4(1) of the GDPR.

7 B2B transactions, manufacturing, production, transport, mining, shipping, aeronautical traffic, financial services, securities markets and many Internet of Things contexts are sources of industrial data. Anonymized personal data are qualified as industrial data, to the extent that, not carrying personally identifiable information, they fall outside of the GDPR’s scope. See GDPR, Recital 26.

Most importantly, the licensor often embodies certain limitations of the use of the data in the contract, preventing the licensee from fully exploiting the potential of data sharing.

After an in-depth analysis of industrial data marketplaces,⁸ the Commission identified one main problem arising from the structural features of such markets: consensual data transfers through contracts enable an overall level of data circulation between companies, which is deemed suboptimal from a macroeconomic point of view. Being data non-rivalrous goods, their value is maximized when all the actors who can extract value from them have the possibility to do so.⁹ But contract law, as the source of control over industrial data, can work efficiently only when the holder of data has an economic interest in sharing them with others and when the bargaining power of the parties is equally strong.¹⁰

This is why it has been argued that, at least for certain types of data, granting non-consensual access to third parties could bring welfare-enhancing effects without impinging on the economic interests of the data holder, who invested into his data collecting capabilities.¹¹ One of the objectives of the Digital Single Market Strategy is therefore enhancing forced industrial data circulation to allow economically weak players reaping the benefits of Big Data analytics, ultimately improving service innovation and digital markets competition.

Among the many regulatory solutions proposed by the Commission as the pos-

8 EU Commission, *Staff Working Document on the Free Flow of Data and Emerging Issues of the European Data Economy*, 2017, <https://ec.europa.eu/digital-single-market/en/news/staff-working-document-free-flow-data-and-emerging-issues-european-data-economy>.

9 OECD, *Data-Driven Innovation: Big Data for Growth and Well Being*, 2015, https://read.oecd-ilibrary.org/science-and-technology/data-driven-innovation_9789264229358-en#page1, p. 180.

10 J. DREXL, *Designing Competitive Markets for Industrial Data – Between Propertisation and Access to Data*, 2016, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2862975, p. 41. The author emphasized that, in industrial data markets, scale and scope effects in the collection and analysis of digital data and direct and indirect network effects typical of these markets are arguably conducive to market concentration and vendor lock-in effects, especially in the field of the manufacturing of connected devices. All the economic value and benefits of industrial data analytics seem to be captured by few companies, notwithstanding the fact that many operators often collaborate to the production of such data. On the top of this, legal uncertainty regarding how to draft data licensing agreements appears to hinder industrial data circulation between companies, especially to the detriment of small and medium-sized enterprises.

11 OECD, *Data-Driven Innovation: Big Data for Growth and Well-Being*, 2015, p. 186.

sible “ways-forward” to achieve a higher level of industrial data circulation in the single market,¹² this analysis will focus on two specific proposals:

- (i) using EU competition law to force dominant firms to open their industrial datasets to their competitors;
- (ii) designing new access regimes at the EU law level to impose on some undertakings, under given conditions, obligations to grant third parties access to their datasets.

2. Enhancing Access to Industrial Data Sets through Article 102 TFEU

At its fundamental level, antitrust law protects the process of competition, ultimately scrutinizing whether the growing market power of undertakings could harm consumer welfare, for instance rising product prices, or reducing output, product quality or innovation.¹³ Therefore, it is no surprise that the exclusive control over massive industrial data sets by single firms has recently attracted the attention of antitrust authorities.¹⁴

The control of massive quantities of data, especially by those that are referred to as “Big Tech companies,” raises multiple concerns under the three typical anticompetitive figures embodied in EU law, restrictive agreements,¹⁵ abuse of dominant positions¹⁶ and mergers and acquisitions significantly reducing competition.¹⁷ Increasing attention is being paid by antitrust authorities from all over the world, when assessing a firm’s market power and dominance, to the role played by its Big Data practices.¹⁸

12 EU Commission, *Staff Working Document on the Free Flow of Data and Emerging Issues of the European Data Economy*, 2017, p. 30.

13 R. WISH, *Competition Law*, Oxford University Press, 2008, p. 1.

14 J. DREXL, *Designing Competitive Markets for Industrial Data – Between Propertisation and Access to Data*, 2016, p. 42.

15 EU, Consolidated Version of the Treaty on the Functioning of the European Union, 2008, OJ C326/47, <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:12012E/TXT>, Article 101.

16 Consolidated Version of the Treaty on the Functioning of the European Union, Article 102.

17 Council Regulation (EC) 139/2004 on the Control of Concentrations between Undertakings, 2004, OJ L24/1, <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A32004R0139>.

18 I. GRAEF, *Market Definition and Market Power in Data: the Case of Online Platforms*, *World Competition: Law and Economics Review*, 38, 2015, p. 473 at 474; see also JOAQUÍN ALMUNIA, *Competition and Personal Data Pro-*

IT markets in general – and especially the entities which are referred to as “on-line platforms”¹⁹ – have special characteristics, such as often being multi-sided markets, benefitting from economies of scale and scope and networks effects, that are arguably conducive to market concentration and dominance by very few players.²⁰ Control over industrial data is considered as a potential competition problem, and the EU Commission as well as EU Member States’ national competition authorities are currently inquiring into the relation between control over massive digital datasets and market power.²¹ However, this part of the analysis will only try to answer to the question whether EU competition law is an appropriate instrument to protect the free market economy by granting some players access to dominant firms’ industrial datasets. Indeed, a general right to access third parties’ data could theoretically be adopted from an antitrust perspective.²²

The relationship between information circulation and market competition is an old one: already in 1945 the US Supreme Court, using a sharp procompetitive reasoning, ruled that unilaterally denying access to news agency reports to competing media companies resulted in substantial harm to competition.²³ Since information, especially in a data-driven economy, corresponds to value, “access to information has a competitive impact.”²⁴

tection (Speech of 2012) http://europa.eu/rapid/press-release_SPEECH-12-860_en.htm, where the Commissioner stated, with respect to personal data: “DG Competition has yet to handle a case in which personal data were used to breach EU competition law. In time, personal data may well become a competition issue.”

19 Search engines, media portals, trading platforms and social networks share the similarity of gathering different categories of users and exploit special competitive effects. Data is notably a fundamental resource for this kind of business models. See EU Commission, ‘Online Platforms and the Digital Single Market Opportunities and Challenges for Europe’ (Communication) COM(2016) 288 final, p. 2.

20 M. MAGGIOLINO, *I Big Data e il Diritto Antitrust*, Egea, 2018, p. 132.

21 *Autorité de la Concurrence* and *Bundeskarellamt*, Competition Law and Big Data, 2016, <http://www.autoritedelaconcurrence.fr/doc/reportcompetitionlawanddatafinal.pdf>, p. 11.

22 S. LOUVEN, *Shaping Competition Policy in the Era of Digitization – Access to Data*, 2018, http://ec.europa.eu/competition/information/digitisation_2018/contributions/sebastian_louven_oldenburg_centre_for_law_of_the_information_society.pdf, p. 2.

23 US Supreme Court, *Associated Press v. US*, 1945, 326 US 1, <https://supreme.justia.com/cases/federal/us/326/1/>.

24 R. H. WEBER, *Data Portability and Big Data Analytics. New Competition Policy Challenges*, *Concorrenza e*

On the positive side, competition law is applicable indistinctly to any sector of the digital economy. Against the backdrop of the necessity to enhance industrial data circulation in the private sector, competition law could potentially work as a “platform on which legislatures can build to formulate more targeted and sector-specific rules,” among which access solutions could be enforced.²⁵ As the Commission itself stated, “competition law is applicable in the context of data-driven business models and therefore it may be invoked to claim a wider access to data held by one economic operator.”²⁶ And anyway, “competition law thinking as a market-compliant approach will [...] prove important for devising additional pro-competitive regimes that promote access to data.”²⁷

On the negative side though, competition law can notably counteract only to a specific type of market failure, being antitrust intervention only justified when harm to competition is identified. Since digital data became a fundamental input comparable to a raw material for many kind of business, a firm’s refusal to grant competitors access to its datasets, under certain conditions, could possibly result in a restriction to competition.²⁸

Two questions can be raised on the interrelation between competition law and access to industrial datasets:²⁹

- (i) whether there can be any right of access to data from an antitrust point of view;
- (ii) if access can be granted, how to design such access relationship.

An example of an antitrust dispute over access to digital datasets is the 2012

Mercato, 23, 2016, p. 59 at 60.

25 J. DREXL, *Designing Competitive Markets for Industrial Data – Between Propertisation and Access to Data*, 2016, p. 43.

26 EU Commission, *Staff Working Document on the Free Flow of Data and Emerging Issues of the European Data Economy*, 2017, p. 21.

27 J. DREXL, *Designing Competitive Markets for Industrial Data – Between Propertisation and Access to Data*, 2016, p. 44.

28 S. LOUVEN, *Shaping Competition Policy in the Era of Digitization – Access to Data*, 2018, p. 4.

29 S. LOUVEN, *Shaping Competition Policy in the Era of Digitization – Access to Data*, 2018, p. 4.

PeopleBrowsr v. Twitter case, in California.³⁰ Since 2008, PeopleBrowsr was in a contractual relationship with Twitter to have access to its datasets and receive data generated by the latter. PeopleBrowsr used such precious data to assess its own products and to design improved marketing campaigns.³¹ When Twitter suddenly excluded PeopleBrowsr from its market analysis, the latter brought forward an antitrust action seeking an injunction to prevent Twitter from destroying its business and restraining competition in markets relying on data generated on the social network. The parties ended up settling the dispute in California Federal Court, agreeing to let PeopleBrowsr to continue to have access to Twitter's datasets until 2013. Thereafter, PeopleBrowsr would switch to access to an authorized Twitter data reseller.³²

No specific dispute on access to digital data has come up in EU competition case-law, yet. However, some considerations on potential data-related antitrust cases can be drawn from existing jurisprudence on refusals to deal since, according to the Magill case,³³ under exceptional circumstances a refusal to grant access to its resources by a dominant undertaking can be captured as an abusive refusal under Article 102 TFEU.³⁴

Once dominance in a relevant market is established, a special responsibility is notably conferred to the dominant undertaking, whose scope is determined on a case-by-case basis.³⁵ An obligation to grant access to its datasets could derive from this antitrust responsibility.³⁶

30 US District Court of the Northern District of California, *People Browsr Inc. et al. v. Twitter Inc.*, 2012, Case No 3:12-cv-06120.

31 PeopleBrowsr paid annually around US\$ 1 million for Twitter's service.

32 V. Bagnoli, *The Big Data Relevant Market*, *Concorrenza e Mercato*, 23, 2016, p. 73 at 75.

33 ECJ 6 April 1995, Joined Cases C-241 and C-242/91 P *Radio Telefis Eireann (RTE) and Independent Television Publications Ltd (ITP) v Commission of the European Communities*, <https://eur-lex.europa.eu/legalcontent/EN/TXT/?uri=CELEX%3A61991CJ0241> (*Magill* case), para 49.

34 M. MAGGIOLINO, *I Big Data e il Diritto Antitrust*, 2018, p. 321; C. OSTI, *L'obbligo a Contrarre: il Diritto Concorrenziale tra Comunicazione Privata e Comunicazione Pubblica* in A. ZOPPINI-C. OLIVIERI, *Contratto e Antitrust*, Editori Laterza 2008, p. 26 at 32.

35 EC Commission, *Guidance on the Commission's Enforcement Priorities in Applying Article 82 of the EC Treaty to Abusive Exclusionary Conduct by Dominant Undertakings*, 2009, [https://eur-lex.europa.eu/legalcontent/EN/TXT/PDF/?uri=CELEX:52009XC0224\(01\)&from=EN](https://eur-lex.europa.eu/legalcontent/EN/TXT/PDF/?uri=CELEX:52009XC0224(01)&from=EN), para 1.

36 S. LOUVEN, *Shaping Competition Policy in the Era of Digitization – Access to Data*, 2018, p. 4.

For a refusal to grant access to data to amount to an abuse of dominant position under Article 102 TFEU, logically (i) the data holder must be dominant in the relevant market,³⁷ (ii) the refusal to grant access should constitute an abuse of such dominant position and (iii) no pro-competitive defense must exist to justify the conduct.³⁸

The notion of dominance under EU case-law revolves around the factual power of the undertaking to “behave to an appreciable extent independently of its competitors, its customers and ultimately its consumers.”³⁹ However, as any other qualification relevant to competition law, dominance is a concept that must be examined in light of all the concrete circumstances of the individual case. Recently, data-driven business models have been analyzed in depth by German scholars with the intent of adapting competition law to the challenges of digitization: exclusive control over data was considered such a relevant factor that the German Competition Act was amended in 2017 to include the specific criterion of a firm’s “access to data relevant for competition” in the assessment of its market power.⁴⁰ A dominant position based on data power could be deemed to exist where access to such data is essential for competitors to the extent that data is considered a market entry barrier, that the dominant firm can exploit to exclude

37 The issue related to the definition of a “Big Data relevant market,” in both the product and geographic dimension, will not be addressed in this analysis, since it is entirely dependent upon the factual circumstances of the case at hand, for instance which specific kind of digital data are relevant for competitors, which players are in the market, the total market size and the possibility of market dominance. Indeed, the concept of relevant market under competition law is notably “an analytical tool that assists in determining the competitive constraints upon undertakings: market definition provides a framework within which to assess the critical question of whether a firm or firms possess market power.” See WISH, *Competition Law*, 2008, p. 26. However, for a proposal of a structured method to identify data relevant markets, see BAGNOLI, *The Big Data Relevant Market*, 2016, p. 93.

38 R. H. WEBER, *Data Portability and Big Data Analytics. New Competition Policy Challenges*, 2016, p. 68.

39 ECJ 13 February 1979, Case 85/76 *Hoffmann-La Roche & Co. AG v Commission of the European Communities*, <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A61976CJ0085>, para 38. Dominance entails that competitive restraints physiologically existing in any competitive market are not sufficiently effective, thus letting the undertaking enjoy substantial market power over a period of time. Typically, in the assessment of market dominance, different factors are taken into account by the Commission: the position on the market of actual competitors, entry of potential competitors, countervailing buyer power – either referred to other firms or consumers –, market structure and market shares. See EC Commission, *Guidance on the Commission’s Enforcement Priorities in Applying Article 82 of the EC Treaty to Abusive Exclusionary Conduct by Dominant Undertakings*, 2009, para 10.

40 German Act against Restraints of Competition Section 18(3a) no. 4, Federal Law Gazette I 2017, p. 1416.

new entrants.⁴¹

Looking at existing case-law, some guidance is already established for assessing whether, in general, a refusal to deal constitutes an abuse of dominance under Article 102 TFEU. Two different scenarios can be considered: the dominant undertaking refuses to grant access and terminates an existing contractual relationship with the counterparty or the dominant undertaking refuses to grant access to a third party with whom no previous contract was concluded.⁴² In the first case, the refusal must be considered unlawful if (i) considering all the circumstances, it could result in a restraint to competition and (ii) it is not objectively justified in economic terms.⁴³ In the second case, under the Bronner case,⁴⁴ the Court of Justice of the European Union (CJEU) added the requirement that the resource the dominant firm refused to deal be essential, as no other substitute exists for the economic activity of the entity seeking such resource.

These requirements clearly echo the principles of the essential facility doctrine, devised by US courts as a specification of the refusal to deal.⁴⁵ In the EU legal framework, even if the right to choose the trading partners is firmly recognized as a cornerstone of the economic freedom, when a dominant firm controls a facility that is somehow essential for its competitors, it seems reasonable that, under certain circumstances, it can be forced to grant access to its facility.⁴⁶

41 S. LOUVEN, *Shaping Competition Policy in the Era of Digitization – Access to Data*, 2018, p. 4.

42 M. MAGGIOLINO, *I Big Data e il Diritto Antitrust*, 2018, p. 322.

43 See ECJ 6 March 1974, Joined Cases 6 and 7/73 *Istituto Chemioterapico Italiano S.p.A. and Commercial Solvents Corporation v Commission of the European Communities*, <https://eur-lex.europa.eu/legalcontent/EN/TXT/?uri=CELEX%3A61973CJ0006>; ECJ 3 October 1985, Case C 311/4 *Centre Belge d'Etudes de Marché - Télémarketing (CBEM) v SA Compagnie Luxembourgeoise de Télédiffusion (CLT) and Information Publicité Benelux (IPB)* <http://curia.europa.eu/juris/liste.jsf?language=en&num=C-311/84>.

44 ECJ, Case C-7/97 *Oscar Bronner GmbH & Co. KG v Mediaprint Zeitungs- und Zeitschriftenverlag GmbH & Co. KG, Mediaprint Zeitungsvertriebsgesellschaft mbH & Co. KG and Mediaprint Anzeigengesellschaft mbH & Co. KG* <http://curia.europa.eu/juris/liste.jsf?language=en&num=C-7/97>, para 41.

45 R. PITOFKY, D. PATTERSON & J. HOOKS, *The Essential Facilities Doctrine Under United States Antitrust Law*, *Antitrust Law Journal*, 7, 2002, p. 444.

46 See EC Commission, *Guidance on the Commission's Enforcement Priorities in Applying Article 82 of the EC Treaty to Abusive Exclusionary Conduct by Dominant Undertakings*, 2009, where at para 78 it is stated that “[t]he concept of refusal to supply covers [...] refusal to grant access to an essential facility.”

Going back to the requirements necessary for a refusal to be qualified as an abuse of dominance, the CJEU, in the case abovementioned Magill case and in IMS Health case⁴⁷ designed a first test for this purpose. These cases demonstrated that “it is easiest to show dominance in data-related cases where the petitioner seeks access to concrete semantic information that is indispensable for doing business in a market.”⁴⁸ Lastly, the Microsoft⁴⁹ case, the CJEU formulated a four bullets test listing cumulative conditions that need to be fulfilled for a refusal to deal to amount to a violation of Article 102 TFEU:

- (i) “in the first place, the refusal relates to a product or service indispensable to the exercise of a particular activity on a neighboring market;
- (ii) in the second place, the refusal is of such a kind as to exclude any effective competition on that neighboring market;
- (iii) in the third place, the refusal prevents the appearance of a new product for which there is potential consumer demand.”⁵⁰
- (iv) The refusal is not economically justified.⁵¹

Firms exerting de facto control over industrial datasets are arguably highly incentivized to act in a manner that allow them to maintain their competitive “data-advantages,” for instance limiting competitors’ access to data and anyway preventing other forms of data circulation.⁵² The question at hand therefore becomes whether industrial data sets can be qualified as an essential facility, to which access must be granted in

47 ECJ 29 April 2004, Case C-418/01 *IMS Health GmbH & Co. OHG v NDC Health GmbH & Co. KG*, <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A62001CJ0418>, para 38.

48 J. DREXL, *Designing Competitive Markets for Industrial Data – Between Propertisation and Access to Data*, 2016, p. 46.

49 CJEU, Case T-201/04 *Microsoft Corp v. Commission of the European Communities* [2007] ECLI:EU:T:2007:289 para 332. It is relevant to note that Microsoft’s market dominance did not arise from IP rights, but “from the fact that Windows had emerged as a *de facto* standard in the market for operating system, which made the interoperability information an indispensable input for offering interoperable programs that would run on Windows,” see DREXL, *Designing Competitive Markets for Industrial Data – Between Propertisation and Access to Data*, 2016, p. 46.

50 *Microsoft* case, para 332.

51 *Microsoft* case, para 333.

52 D. RUBINFELD & M. GAL, *Access Barriers to Big Data*, *Arizona Law Review*, 59, 2017, <http://arizonalawreview.org/pdf/59-2/59arizrev339.pdf>, p. 339 at 352.

order to maintain competition to a functioning level in a given market.⁵³

In the Bronner case, a network of interlocked contractual agreements to deliver newspapers to subscribers was considered as an essential facility. This could support the argument that digital data can be qualified as an essential facility, since the dominant firm did not have any form of traditional or intellectual property rights over its facility, but merely enjoyed a contractual form of control over the network, very similar to the control data holders enjoy over their datasets.⁵⁴

The first requirement set by the ECJ in Microsoft, the indispensability requisite, is certainly the most difficult to fulfill in a data scenario. Indeed, “assessing the dominance in a world of big datasets by using the concept of substitutability remains a most difficult task.”⁵⁵

“[A]n input is indispensable where there is no actual or potential substitute on which competitors in the downstream market could rely so as to counter [...] the negative consequences of the refusal.”⁵⁶ The very non-rivalrous nature of data, even in their collection, raises delicate issues with respect to non-substitutability: whether data are substitutable will depend on the actual circumstances of the case. In most cases, for publicly available information, such as data on the weather or on the quality of certain streets, different sources are available, and any data collector could arguably duplicate the datasets. Regarding user online generated content, even if some online service providers may have exclusive control over massive datasets, other websites are theoretically free to collect the same kind of data from the same user and for the same types of activity.⁵⁷

53 B. LUNDQVIST, *Big Data, Open Data, Privacy Regulations, Intellectual Property and Competition Law in an Internet of Things World*, 2016, <https://ssrn.com/abstract=2891484>, p. 18.

54 I. EAGLES & L. LONGDIN, *Gambling on Essential Facilities: Withholding Data as an Abuse of Market Power in European Competition Law*, *New Zealand Business Law Quarterly*, 12, 2006, p. 395 at 409.

55 J. DREXL, *Designing Competitive Markets for Industrial Data – Between Propertisation and Access to Data*, 2016, p. 46.

56 EC Commission, *Guidance on the Commission’s Enforcement Priorities in Applying Article 82 of the EC Treaty to Abusive Exclusionary Conduct by Dominant Undertakings*, 2009, para 83.

57 A. V. LERNER, *The Role of “Big Data” in Online Platform Competition*, 2014, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2482780, p. 20.

In the *Bronner* case, the CJEU clearly stated that a resource in the control of a competitor cannot be considered indispensable if there are no “technical, legal or even economic obstacles capable of making it impossible, or even unreasonably difficult” for competitors to duplicate the resource.⁵⁸ The Court emphasized that the argument showing that duplication of the resource would not be economically viable for the petitioner’s scope of business would not be enough to justify access to the facility.⁵⁹ Specifically, for access to be regarded as indispensable, it would be necessary that it is not economically viable to create a second facility with the same characteristics as the dominant firm’s one.⁶⁰ This means that the petitioner, regardless of the size of its business, should make the same economic investment as the dominant firm in its technologies and services to collect data before claiming that the resource is indispensable.⁶¹

The question thus is not whether the petitioner can develop its own facility, but whether an undertaking operating on the same scale as the dominant firm could. Unless the petitioner proves to have invested similar amounts of resources in data collection, the dominant firm’s datasets will not be considered indispensable. This reasoning seems to run against the possibility of data being considered an essential facility, since it excludes the possibility of competition law to assist companies requesting access to data simply because they are small or not as efficient as the dominant firm.⁶² Plainly, the competitive advantage that the dominant firm enjoys due to its control over the facility cannot be a sufficient ground to qualify the resource as indispensable,⁶³ since under competition law “there is no duty to aid competitors.”⁶⁴

58 *Bronner* para 44.

59 *Bronner* para 45.

60 *Bronner* para 46.

61 M. MAGGIOLINO, *I Big Data e il Diritto Antitrust*, 2018, p. 326.

62 I. EAGLES & L. LONGDIN, *Gambling on Essential Facilities: Withholding Data as an Abuse of Market Power in European Competition Law*, 2006, p. 409.

63 Opinion of Advocate General Jacobs delivered on 28 May 1998 in *Bronner* case, <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A61997CC0007>, para 65.

64 US Supreme Court, *Verizon v. Law Offices of Curtis Trinko*, 2004, 540 US 398, <https://supreme.justia.com/cases/federal/us/540/02-682/>.

Regarding the second requirement, foreclosing competition in a secondary market, its rationale rests on a leveraging and exclusion antitrust theory.⁶⁵ Its assumption is that the dominant undertaking is active in the same market as the petitioner and refuses access to the facility specifically to drive its competitors out of such market. In data cases, this is very unlikely to happen, since a typical feature of digital data is being inherently multi-purposed, often being useful for some applications that were not even imagined by the original collector.⁶⁶ Furthermore, with respect to the elimination of effective competition, “the closer the substitutability between the dominant undertaking’s output and that of its competitors in the downstream market, the greater the proportion of competitors in the downstream market that are affected, and the more likely it is that the demand that could be served by the foreclosed competitors would be diverted away from them to the advantage of the dominant undertaking.”⁶⁷ Speaking of digital data, identifying the level of substitutability of datasets and the likelihood that the demand could be diverted from foreclosed competitors to the dominant firm would be incredibly hard. Arguably, this requirement would never be met in a data scenario.

Regarding the third requirement, the “new product rule,” this requisite only applies to cases involving refuses to license IP rights.⁶⁸ As we saw earlier, under the current EU legal framework, digital data can be covered by IP protection in very limited cases. This would seem to weigh in favor of considering digital data as an essential facility. Anyway, to the extent that trade secrets protection applies to digital data – or in the case that the data producer’s right was implemented – this additional requirement could become more relevant.

Regarding the fourth requirement, *i.e.*, the presence of potentially reasonable justifications to refuse access to the facility, many uncertainties remain on which efficiency defenses and procompetitive effects could be brought forward to justify a refusal

65 J. DREXL, *Designing Competitive Markets for Industrial Data – Between Propertisation and Access to Data*, 2016, p. 49.

66 M. MAGGIOLINO, *I Big Data e il Diritto Antitrust*, 2018, p. 327.

67 EC Commission, *Guidance on the Commission’s Enforcement Priorities in Applying Article 82 of the EC Treaty to Abusive Exclusionary Conduct by Dominant Undertakings*, 2009, para 85.

68 *Microsoft* case para 334.

to access data.⁶⁹ Arguably, a claim that the refusal to share datasets is necessary for the dominant firm to allow it to make an economic return on the investments required to develop its data collection capabilities would make much economic sense and could therefore be accepted as an efficiency by the Commission and the CJEU, since it generates a strong incentive to continue to invest in data technologies and services in the future.⁷⁰ Even this last requirement seems to run against the qualification of datasets as essential facility. In sum, qualifying a refusal to grant access to data as an abuse of dominant position under Article 102 TFEU might be a problematic task, at least under the current CJEU case-law.⁷¹

First of all, if the policy objective is to enhance digital data circulation “private competition-law enforcement [...] will often be too burdensome given the need to show market dominance in each and every case, while the problem will very much become one of mass cases.”⁷²

Furthermore, the digital sector seems to be an industry where disruption has been caused many times by new entrants, who certainly did not enjoy the data competitive advantages of the incumbents, but nevertheless drove them out of the market by offering new innovative services.⁷³ It has been argued that even if control over large amounts of data were necessary for an entrant to compete successfully in a market, that would not differ from any high start-up fixed costs existing in many industries, certainly not constituting an unfair competitive advantage.⁷⁴

69 J. DREXL, *Designing Competitive Markets for Industrial Data – Between Propertisation and Access to Data*, 2016, p. 52.

70 EC Commission, *Guidance on the Commission’s Enforcement Priorities in Applying Article 82 of the EC Treaty to Abusive Exclusionary Conduct by Dominant Undertakings*, 2009, para 89.

71 MAGGIOLINO, *I Big Data e il Diritto Antitrust*, 2018, p. 325.

72 J. DREXL, *On the Future EU Legal Framework for the Digital Economy: A Competition-based Response to the ‘Ownership and Access’ Debate* in S. LOHSSE, R. SCHULZE AND D. STAUDENMAYER, *Trading Data in the Digital Economy: Legal Concepts and Tools*, Nomos, Verlagsges, 2017, p. 223 at 238.

73 A. LAMBRECHT-C. TUCKER, *Can Big Data Protect a Firm from Competition?*, 2015, <https://www.competitionpolicyinternational.com/wp-content/uploads/2017/01/CPI-Lambrecht-Tucker.pdf>, p. 6.

74 J. KENNEDY, *The Myth of Data Monopoly: Why Antitrust Concerns About Data Are Overblown*, 2017, <http://www2.itif.org/2017-data-competition.pdf>, p. 8.

It is true that few firms may have de facto exclusive control over huge datasets, but from an antitrust perspective, this does not necessarily mean that they have exclusive control over and can exclude competitors from the new collection of such data. Especially from an antitrust perspective, “what one should be concerned with are not data per se, but rather services which require data for their functioning.”⁷⁵ Regarding user generated content, in 2014 the Commission, authorizing the merger between Facebook and WhatsApp, stated that “the use of one consumer communication app [...] does not exclude the use of competing consumer communications apps by the same user.”⁷⁶ The Commission clarified that, even if the merged entity’s datasets would be massive, there would still remain an equally massive amount of Internet user data that it did not have control over.⁷⁷ This way of reasoning seems far from considering industrial datasets as essential facilities.

Lastly, even assuming that a dominant firm’s refusal to grant access to its datasets amounted to a violation of Article 102 TFEU, many problems remain on how the remedy of forced sharing could be devised, implemented and monitored under competition law. Typically, compulsory licenses are the traditional remedy for abusive refusals

75 V. ZENO-ZENCOVICH, *Do ‘Data Markets’ Exist?*, 2019, http://www.medialaws.eu/wp-content/uploads/2019/03/2_2019_Zeno-Zencovich.pdf, p. 5.

76 EU Commission, *Case M.7217 – Facebook/Whatsapp*, 2014, http://ec.europa.eu/competition/mergers/cases/decisions/m7217_20141003_20310_3962132_EN.pdf, para 133. The same kind of reasoning, running that the amount of accessible data usable for analytics purposes would remain sufficient for competitors to match the advantage of the merging parties, was used by the Commission in EU Commission, *Case M.6314 – Telefonica UK/ Vodafone UK/ Everything Everywhere/ JV*, 2012, http://ec.europa.eu/competition/mergers/cases/decisions/m6314_20120904_20682_2898627_EN.pdf and EU Commission, *Case M.7023 – Publicis/Omnicom*, 2014, http://ec.europa.eu/competition/mergers/cases/decisions/m7023_20140109_20310_3566669_EN.pdf. Similarly, the US Federal Trade Commission, when it cleared the Google’s acquisition of DoubleClick in 2007, stated that “[t]he evidence indicates that neither the data available to Google [...] constitutes an essential input to a successful online advertising product. A number of Google’s competitors have at their disposal valuable stores of data not available to Google. For instance, Google’s most significant competitors in the ad intermediation market, Microsoft, Yahoo!, and Time Warner have access to their own unique data stores. These firms own popular search engines, and will have access to consumer information from their internal ad servers, ad intermediation services, other web properties, and software.” See https://www.ftc.gov/system/files/documents/public_statements/418081/071220googledc commstmt.pdf, p. 12.

77 EU Commission, *Facebook/WhatsApp* case, 2014, para 189.

to deal.⁷⁸ But many aspects of the administrative management of the compulsory license to access would need to be decided upon by some authority.

The intervention by the courts, in the form of an order to share data following the judgement, would require the same courts to maintain supervision for some time to ensure that access is effectively granted.⁷⁹ The order could embody a general binding obligation on the dominant firm to grant access in a non-discriminatory manner to its competitors, without specifying the exact terms of access.⁸⁰ But such general measure would arguably result in many small competitors acting as free riders to exploit the dominant firm's resources, with the inevitable consequence of decreasing ex ante investment incentives and ultimately losing dynamic efficiency.⁸¹

Alternatively, drafting specific terms of access of the compulsory license could be the task of competition authorities, better equipped than courts in this regard. But this would result in the EU Commission functioning as a pure ex ante central legislative authority, a role it could not be perfectly fit for.⁸²

To conclude, even in the very unlikely scenario in which a refusal to grant access to datasets were considered an abuse of dominant position under the essential facility doctrine, the problematic issues of establishing a fair price for access, identifying the entities entitled to access and designing access terms and conditions would arise. Plainly, these tasks would be better performed by legislative bodies, rather than by competition authorities.

The policy objective of promoting access to privately held digital datasets in order to foster competition in the Digital Single Market ultimately boils down to correcting digital markets features and structure, that seem to naturally lead to data lock-in effects and market concentration. Notably, competition law is not an instrument

78 M. MAGGIOLINO, *I Big Data e il Diritto Antitrust*, 2018, p. 328.

79 J. P. CHOI, *Compulsory Licensing as an Antitrust Remedy*, *WIPO Journal*, 2, 2010, p. 74 at 77.

80 T. A. PIRAINO, *Identifying Monopolists' Illegal Conduct Under the Sherman Act*, *New York University Law Review*, 75, 2000, p. 809 at 883.

81 J. P. CHOI, *Compulsory Licensing as an Antitrust Remedy*, 2010, p. 77.

82 M. MAGGIOLINO, *I Big Data e il Diritto Antitrust*, 2018, p. 328.

appropriate to intervene on market structure.⁸³ Legislative action, in the form of competition-oriented digital datasets access regimes, should be taken outside of the realm of competition law.⁸⁴

3. Enhancing Access to Industrial Data through Non-consensual Data Sharing Mechanisms

If the main objective of the Commission is enabling enhanced industrial data circulation, effective forms of legislative actions may be adopted at the EU law level. Typically, any market for “Internet of Things device”⁸⁵ could cause a lock-in effect: the user of the device has an economic interest in using the data generated, but the manufacturer, whose superior bargaining power allows him to take control of the data by unilaterally imposing conditions in the contract for the sale of the device, has an incentive to deny such access. This is why regulating access to data held by others can be an alternative to use EU competition law to achieve the same results.⁸⁶

If, as we stated before, consensual transfer through contracts is the ordinary way of industrial data circulation, “the policy goal of promoting data sharing and exchange [...] to foster market competition shall be based on regulatory regimes which, at given conditions, force non-consensual access to data.”⁸⁷ A strong consideration supporting data access regulatory measures is that many times the economic value intrinsic to the data is minimal, being the ability of an actor to make innovative use of such data the

83 G. COLANGELO-M. MAGGIOLINO, *Big Data, Data Protection and Antitrust in the Wake of the Bunderskartellamt Case Against Facebook*, *Italian Antitrust Review*, 1, 2017, p. 104 at 108.

84 J. DREXL, *Data Access and Control in the Era of Connected Devices*, 2018, https://www.ip.mpg.de/fileadmin/ipmpg/content/aktuelles/aus_der_forschung/beuc-x-2018-121_data_access_and_control_in_the_area_of_connected_devices.pdf, p. 37.

85 IoT devices, also referred to as smart or connected devices, are technological tools that are engineered to collect and store data from the environment they are used in. Typically, the device manufacturer will engineer the device so that it constantly transfers the collected data back to him, even though the actual user of the device could be another company.

86 J. DREXL, *Designing Competitive Markets for Industrial Data – Between Propertisation and Access to Data*, 2016, p. 41.

87 F. MEZZANOTTE, *Access to Data: The Role of Consent and the Licensing Scheme*, 2017, p. 176.

key element.⁸⁸ On this assumption, access solutions could foster competition and research in marketing data science, ultimately awarding companies that exploit data in the most efficient and unexpected way. “Data commons” is a term created to describe non-discriminatory access to certain data for a certain group of actors, who could use the data by paying the holder.⁸⁹

A first example of already existing legislation aimed at ensuring access to information goods is the Copyright Protection Directive:⁹⁰ Article 3 introduced a legal exception to copyright protection in cases where text and data mining is carried out on a copyrighted work for the purpose of scientific research. Shifted in a data market scenario, access could be designed to counteract, when deemed necessary, the de facto exclusivity that data holders have over industrial data with the objective of enhancing data circulation. Of course, the data holder’s refusal to grant access to third parties cannot be by itself the only justification for regulatory intervention: such legitimate capacity of erecting technical barriers around data and contractually authorizing third parties to use them is exactly data holders’ economic incentive to invest in data technologies. And the simple fact that data can be shared without losing quality does not mean that they will not lose value, at least from the data holder perspective: his exclusivity over datasets can be a strong competitive advantage vis-à-vis competitors.

The optimal solution would therefore be to strike a balance between access to and legitimate control of industrial data.⁹¹ Keeping out of this analysis the access regimes based on public interests purposes, by which public authorities could obtain access to datasets generated by private actors, the main approach suggested by the Commission to force circulation of industrial data would be to design “access regimes based on re-

88 EU Commission, *Staff Working Document on the Free Flow of Data and Emerging Issues of the European Data Economy*, 2017, p. 36.

89 OECD, *Data-Driven Innovation: Big Data for Growth and Well-Being*, 2015, p. 187.

90 Directive (EU) 2019/790 of the European Parliament and of the Council on Copyright and Related Rights in the Digital Single Market and Amending Directives 96/9/EC and 2001/29/EC, 2019, <https://eurlex.europa.eu/eli/dir/2019/790/oj>.

91 J. DREXL, *Designing Competitive Markets for Industrial Data – Between Propertisation and Access to Data*, 2016, p. 41.

muneration” to enhance data markets competition and data services innovation.⁹² Such measures should remedy market failures scenarios in which the industrial data holders’ practices are deemed exclusionary or, at least, leading to a level of industrial data circulation regarded as too limited.⁹³ Designing data access rights can be considered as “an expression of fully competition-oriented regulation that aims at opening up new data-based markets for competition.”⁹⁴

Taking inspiration from the rules developed by standard setting organizations with respect to essential patents – *i.e.*, FRAND licenses –⁹⁵, the law could design an obligation to license data usage, binding on data holders and in favor of identifiable third parties, at certain conditions and according to principles of reasonableness and non-discrimination.

The recognition of non-waivable data access rights could specifically target the market failures caused by data locks-in and balance the unequal bargaining positions of the parties engaged in industrial data markets.

Some instances of sector-specific non-consensual data transfer mechanisms can be already found in the EU legal framework.

With the objective of ensuring effective competition in the market for vehicle repair and maintenance information services, Regulation 715/2007,⁹⁶ as amended, en-

92 EU Commission, *Staff Working Document on the Free Flow of Data and Emerging Issues of the European Data Economy*, 2017, p. 30.

93 R. H. WEBER, *Improvement of Data Economy Through Compulsory Licences?* in S. LOHSSE, R. SCHULZE AND D. STAUDENMAYER *Trading Data in the Digital Economy: Legal Concepts and Tools*, Nomos Verlagsges, 2017, p. 137 at 145.

94 J. DREXL, *Data Access and Control in the Era of Connected Devices*, 2018, p. 18.

95 Technical standards, which enable connected devices produced by different firms to interoperate, are often developed by private firms collaborating in standards-development organizations (SDOs). Firms may obtain patents (standards-essential patents, SEPs) covering their contribution to the development of a standard. SDOs typically require that their participants mandatorily license SEPs to manufacturers of standardized products, either royalty-free or subject to fair, reasonable and non-discriminatory royalties. See J. L. CONTRERAS, F. GAESSLER, C. HELMERS & B. J. LOVE, *Litigation of Standards-Essential Patents in Europe: a Comparative Analysis*, *Berkeley Technology Law Journal*, 32, 2017, p. 1459.

96 Article 7 of Regulation (EC) 715/2007 of the European Parliament and Council on Type Approval of Motor Vehicles with Respect to Emissions from Light Passenger and Commercial Vehicles (Euro 5 and Euro 6) and

shrines an obligation for vehicle manufactures to provide standardized access to vehicle repair and maintenance information, without discriminating between authorized dealers and repairers and independent operators.

Directive 2015/2366⁹⁷ similarly established an obligation to grant to new payment services – also referred to as “FinTech” companies – access to certain information held by credit institutions on a non-discriminatory basis, with the aim of lowering market entry barriers for such services and ultimately cutting costs for payments to the benefit of both consumers and merchants. In such manner, the credit institutions’ monopolistic position in holding consumers’ bank account information is undermined: by unlocking such information for FinTech companies, overall competition in the market of electronic payments is strongly enhanced.⁹⁸

At the EU Members’ national law level, France has recently put in place legislation to oblige companies to open up their datasets for certain re-uses.⁹⁹ In particular, certain electricity and gas production and consumption data controlled by distribution systems private operators can be re-used by any other private actor (Article 23).

Obviously, designing new obligations to license access to industrial data would require different economic considerations than the ones underpinning the abovementioned examples. And the issue of access should always be studied in close connection with the topics of interoperability and technology standardization.¹⁰⁰ But the main ra-

on Access to Vehicle Repair and Maintenance Information, <https://eur-lex.europa.eu/legal-content/en/ALL/juri=CELEX:32007R0715>.

97 Articles 35 and 36 of Directive (EU) 2015/2366 of the European Parliament and of the Council on Payment Services in the Internal Market, Amending Directives 2002/65/EC, 2009/110/EC and 2013/36/EU and Regulation (EU) no. 1093/2010, and Repealing Directive 2007/64/EC, <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32015L2366>. Specifically, after consent is given by the credit institution’s customer on such sharing mechanism, credit institutions are obliged to share such customer’s bank account information with Payment Initiation Service Providers and Account Information Service Providers.

98 M. MAGGIOLINO, *I Big Data e il Diritto Antitrust*, 2018, p. 350.

99 *Loi n° 2016-1321 du 7 octobre 2016 pour une République numérique*, *JO République Française* n° 0235 of 7 October 2016, <https://www.legifrance.gouv.fr/affichTexte.do?cidTexte=JORFTEXT000033202746&categorieLien=id>.

100 W. KERBER, *A New (Intellectual) Property Right for Non-Personal Data? An Economic Analysis*, 2017, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2858171, p. 22.

tionale should be recognizing access to entities which have a legitimate interest in using a companies' industrial data.¹⁰¹ The subjects entitled to access would therefore be "anyone who is directly concerned with the data collection and is in need of access to that data."¹⁰²

Designing the circumstantial conditions that legitimize subjects having a legitimate interest to access would certainly be a complex task for EU lawmakers. Especially, an element that should be carefully taken into consideration is the degree of competition existing between the data holder and the entity entitled to access, to avoid excessive aid given to competitors of the data holder.¹⁰³

First of all, two alternative policy choices can be taken: on the one hand, establishing a general access regime applicable to machine-generated data covering different sectors of the market regardless of the peculiarities of the single case, and on the other hand, opting for sector-specific regimes, each tailoring the characteristics of an identified area of the market.¹⁰⁴

Regarding general access regimes, the model of legal exceptions to IP rights typically pursues the same objective of guaranteeing information circulation, under determined circumstances.¹⁰⁵ For instance, Article 5 of the InfoSoc Directive¹⁰⁶ lists a number of legitimate uses of a copyrighted work, independent from any market sector, in which the right of the copyright holder downgrades *vis-à-vis* the social interest in the legitimate use by third parties, and the copyright protection is not enforceable.

Second, the definition of the scope of the right to access could be general or detailed.¹⁰⁷ The former would allow third parties to further use of data for any purpose.

101 J. DREXL, *Data Access and Control in the Era of Connected Devices*, 2018, p. 157.

102 J. DREXL, *On the Future EU Legal Framework for the Digital Economy: A Competition-based Response to the 'Ownership and Access' Debate*, 2017, p. 237.

103 EU Commission, *Staff Working Document on the Free Flow of Data and Emerging Issues of the European Data Economy*, 2017, p. 37.

104 EU Commission, *Staff Working Document on the Free Flow of Data and Emerging Issues of the European Data Economy*, 2017, p. 37.

105 F. MEZZANOTTE, *Access to Data: The Role of Consent and the Licensing Scheme*, 2017, p. 182.

106 Directive (EC) 2001/29 of the European Parliament and Council on the Harmonization of Certain Aspects of Copyrighted and Related Rights in the Information Society [2001] OJ L167/10.

107 F. MEZZANOTTE, *Access to Data: The Role of Consent and the Licensing Scheme*, 2017, p. 177.

The latter would establish limitations to the applications for which data are made available. This second solution seems preferred by the doctrine: access should be limited to the purpose of data analysis in the sole interest of the entitled entity, that could outsource the analysis to a third service provider.¹⁰⁸ The purpose of further commercializing the accessed data should therefore be firmly excluded, such possibility remaining an exclusive power of the original data holder.

Third, for the definition of the level of remuneration, inspiration could be taken from the REACH Regulation.¹⁰⁹ In order to safeguard the general interest in reducing the level of chemicals tested on animals, the access system established by such Regulation in Articles 27 and 30 forces the circulation of data animal tests in the private sector. The costs of sharing the information are the result of a negotiated procedure among the data holder and the interested parties. In case of failure of the negotiation, Articles 27 (2) and 77(2) REACH makes sure that a fair and non-discriminatory price is struck by imposing mandatory normative guidance on general assessment principles, adopted by the European Chemicals Agency.

Another source of inspiration for establishing levels of remuneration to obtain access could be FRAND principles, both as an initial point to start drafting both fair and reasonable pricing criteria and procedural steps imposed to the parties interested in access.¹¹⁰ The fulfilment of a set of compulsory negotiation steps would constitute an initial burden on the data holder, as part of his obligation to license. In particular, the series of steps elaborated by the EU Court of Justice in the Huawei case¹¹¹ could

108 J. DREXL, *On the Future EU Legal Framework for the Digital Economy: A Competition-based Response to the 'Ownership and Access' Debate*, 2017, p. 237.

109 Regulation (EC) 1907/2006 of the European Parliament and Council Concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), Establishing a European Chemicals Agency, Amending Directive 1999/45/EC and Repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A02006R1907-20140410>.

110 MEZZANOTTE, *Access to Data: The Role of Consent and the Licensing Scheme*, 2017, p. 178.

111 ECJ, Case C-170/13 *Huawei Technologies Co. Ltd v ZTE Corp. and ZTE Deutschland GmbH*, <http://curia.europa.eu/juris/liste.jsf?num=C-170/13>. In particular, (i) para 63: “after the alleged infringer has expressed its willingness to conclude a licensing agreement on FRAND terms, it is for the proprietor of the SEP to present to that

offer reliable guidance, always bearing in mind that industrial data transfer practices are well different from SEPs litigation. Difficulties may arise from the fact that industrial data arguably do not have an intrinsic value to use as an initial benchmark.¹¹² The quantification should therefore have as a starting point the specific data usage envisioned by the entity who claims access and the overall context in which data is exchanged.¹¹³

Some concerns have been voiced on the inevitable difficulties that the implementation of a general or sector-specific access regime model would bring about.¹¹⁴ The general model has the flaw of being necessarily too vague, therefore a high level of uncertainties would be expected, that would result in a high level of litigation. The sector-specific model bears the risk of requiring much more costs, time and research effort to lawmakers, in order to properly address the heterogeneous fields of the digital economy.

Trying to draw some conclusions, some scholars argue that the best approach to design access regimes to industrial data would be acknowledging the “complementarity between general and stand-alone systems of access.”¹¹⁵

Going back to the data lock-in loophole between the connected device manufacturer and user, the issue could be address with the adoption of a general legislation on an access right in favor of the economic user of the device.¹¹⁶ As the Commission

alleged infringer a specific, written offer for a license on FRAND terms [...] specifying, in particular, the amount of the royalty and the way in which that royalty is to be calculated;” (ii) para 65: “it is for the alleged infringer diligently to respond to that offer, in accordance with recognized commercial practices in the field and in good faith, a point which must be established on the basis of objective factors and which implies, in particular, that there are no delaying tactics;” (iii) para 66: “should the alleged infringer not accept the offer made to it’, it must submit ‘to the proprietor of the SEP in question, promptly and in writing, a specific counter-offer that corresponds to FRAND terms;” (iv) para 67: “where the alleged infringer is using the teachings of the SEP before a licensing agreement has been concluded, it is for that alleged infringer, from the point at which its counter-offer is rejected, to provide appropriate security, in accordance with recognized commercial practices in the field;” (v) para 68: “where no agreement is reached on the details of the FRAND terms following the counter-offer by the alleged infringer, the parties may, by common agreement, request that the amount of the royalty be determined by an independent third party, by decision without delay.”

112 OECD, *Data-Driven Innovation: Big Data for Growth and Well-Being*, 2015, p. 197.

113 H. R. WEBER, *Improvement of Data Economy Through Compulsory Licences?*, 2017, p. 155.

114 F. MEZZANOTTE, *Access to Data: The Role of Consent and the Licensing Scheme*, 2017, p. 184.

115 F. MEZZANOTTE, *Access to Data: The Role of Consent and the Licensing Scheme*, 2017, p. 184.

116 DREXL, HILTY, DESAUNETTES, GREINER, KIM, RICHTER, SURBLYTE & WIEDEMANN, *On the Current Debate on Exclusive Rights and Access Rights to Data at the European Level*, 2016, p. 6.

suggests, fair and reasonable remuneration levels should be established to make sure that competition is enhanced and the manufacturer is not excessively impinged upon.¹¹⁷ In such manner, the manufacturer's superior bargaining power could be successfully overcome, and the user could analyze data he/she has a legitimate interest in.¹¹⁸

Without prejudice to this general and first-to-implement access regime, further sectorial legislation bears the unquestionable benefits of addressing peculiarities of specific contexts of industrial data exploitation.¹¹⁹ And even "if a general rule would be introduced, [sectorial] concretizations for the concerned environment might be unavoidable," especially because only solutions finely tuned to the specific business context could overcome the typical concerns of compulsory licenses regimes, mainly the compliance with the data holder's right of free economic activities.¹²⁰ Therefore, the list of the sectorial access regimes already in force at the EU level will hopefully be extended to correct detectable market-sector failures.

4. Conclusions

In B2B industrial data markets, datasets in the exclusive factual control of some companies must be unlocked to allow wider data circulation to the benefit of other market players and, ultimately, social welfare itself. We analyzed two regulatory approaches proposed by the EU Commission to force such circulation.

Regarding the possible role of EU competition law in enhancing industrial data circulation, many uncertainties arise on how to grant smaller competitors wider access to dominant firms' datasets. Notably, a refusal to grant access to information relevant to competition by a dominant firm could theoretically amount to a violation of Article

117 EU Commission, *Staff Working Document on the Free Flow of Data and Emerging Issues of the European Data Economy*, 2017, p. 39.

118 For instance, "a data-access right can empower a farmer to connect the data collected by the diverse farming machines of different brands to run the farm without in any way restricting the ability of the manufacturers of these machines to commercialize the aggregated data collected from all the farmers on whose land their farming machines are used", see J. DREXL, *On the Future EU Legal Framework for the Digital Economy: A Competition-based Response to the 'Ownership and Access' Debate*, 2017, p. 236.

119 F. MEZZANOTTE, *Access to Data: The Role of Consent and the Licensing Scheme*, 2017, p. 185.

120 WEBER, *Improvement of Data Economy Through Compulsory Licences?*, 2017, p. 154.

102 TFEU. But the current test for assessing the abusiveness of refusal to deals under the case-law of the CJEU seems to weigh against this possibility. Indeed, considering digital data as essential facilities that all competitors should have the right to access appears today a very remote possibility, especially because industrial data could hardly be considered not substitutable resources in the light of the CJEU Bronner case and of the Commission Facebook/WhatsApp merger case. In any case, even if digital data were considered essential facilities for competitors, the Commission would not be in the best position to regulate how access should be granted.

Regarding the legislative implementation of access regimes, compulsory licensing mechanisms could, under certain conditions drafted by EU lawmakers, oblige data holders to grant access to their datasets to other private players against remuneration. Some examples of such access regimes already exist in the EU legal framework. In such manner, lock-in effects in the field of the manufacturing of IoT devices could be solved: manufacturers, who usually maintain control over data generated by the devices, could be obliged to share the data produced with users of the devices. And sector-specific regimes could be designed to fix specific market failures and imbalances in other areas of industrial data markets. Obviously, the difficult task for EU lawmakers would be to design appropriate conditions upon which granting access becomes mandatory for data holders. Also, the mechanisms to determine a fair price to be granted access would be a very delicate issue. But new access regimes would certainly succeed in enhancing industrial data circulation in the EU.