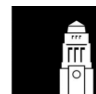

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DATA PROTECTION CONSIDERATIONS IN EU COMPETITION LAW: FUNNEL OR STRAITJACKET FOR INNOVATION?

DR. NICOLO ZINGALES *

[forthcoming in P. Nihoul and P. Van Cleynenbreugel, *The Role of Innovation in Competition Analysis* (Edward Elgar, 2018)]

As technological advancement dramatically increases the opportunities and reduces the costs for data collection and processing, a variety of companies have been seizing those opportunities to offer more targeted products or services. The pattern is simple: data on consumer identities, preferences and behavior is collected from a variety of sources and collated into comprehensive databases, which are then used to identify relevant consumer characteristics and enable a better targeting. The potential of garnering and using data to improve productivity and customization is indeed a central promise of the so called "big data revolution"[1], which tends to favor actors with greater capacity to collect, retain and analyze consumer data. In this context, where data constitutes a valuable input for the attainment of efficiencies and a driver of competitive dynamics, competition law inevitably complements data protection law as an instrument to prevent entities with access to strategic datasets to abuse their position to the detriment of consumers, and individuals more generally.

Needless to say, these instruments differ significantly in their goals and methods of operation. Most importantly for purposes of this chapter, their differences are significant when it comes to the evaluation of the legal justifications offered by undertakings for a range of actions they take in relation to those datasets. A comparison of the legal tests applied in these two different areas in the EU illustrates two contrasting approaches to the incorporation of innovation into legal analysis, with important consequences for competition enforcement. The significance of those differences implies that great caution

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[1] V. Mayer- Schonberger, *Big Data: A Revolution That Will Transform How We Live, Work, and Think* (Eamon Dolan/Mariner Books 2014).

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should be exercised in the implementation of rising "integrationist" theories of data protection and competition law. This chapter exposes a blind spot in that emerging integrationist trend, suggesting that the process used to collapse data protection considerations into a competition assessment has consequential implications for the treatment of "data-driven innovation" and "data protection innovation". Having illustrated the deficiencies of the procedures currently in place, and recognizing that the fundamental right to data protection cannot be ignored by competition enforcers, it calls for the definition of a comprehensive framework of cooperation between competition and data protection authorities.

Section 1 describes the ecosystem created by the valorization of personal data, in particular explaining the two types of innovation introduced by this ecosystem: data-driven innovation and data protection innovation. Section 2 observes that the current framework for innovation defenses in EU competition law is deficient when it comes to these new forms of innovation. Section 3 provides an overview of the legal basis for data-driven innovation in EU data protection law. Section 4 maps out the possible intersection between data protection and competition analysis in this regard, identifying different needs and scenarios of cooperation between competition and data protection authorities. Finally, Section 5 summarizes the key points of this contribution and concludes.

1. The rise of data innovation

Though it might not be apparent yet, we are living what the World Economic Forum has called the fourth industrial revolution[2]. After the breakthrough technological advancements generated by the mechanization of production, electricity and automation, we are now in the midst of a transition to a world where digital technologies are becoming embedded into physical objects, enabling the control or monitoring of their activity through the use of algorithms. While part of this transition can be ascribed to the third industrial revolution, which consisted in the automation of production through electronics and information technologies, two distinctive features suggest that we are

[2] Klaus Schwab, 'The Fourth Industrial Revolution: what it means, how to respond', World Economic Forum (14 January 2016). Available at <https://www.weforum.org/agenda/2016/01/the-fourth-industrial-revolution-what-it-means-and-how-to-respond/> accessed 10 September 2016.

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witnessing a different phenomenon: the innovation produced over the last few years by this technological paradigm is occurring at a much higher pace, and is affecting and increasingly disrupting all industries[3].

This shift has been dubbed "industry 4.0", which involves the redefining the dynamics of manufacturing along the above-mentioned lines. This process is enabled by a number of factors. Without doubts, the increased capacity and the lower cost of computing, the subsequent deployment of increasingly intelligent robots and machines and the expansion of wireless communications and networks play a pivotal role in this ecosystem[4]. But it would be disingenuous to overlook that this technological advancement is fueled by the boost in collection and processing of data, generated by the continuous interaction of humans with machines and between machines themselves. With the rise of artificial intelligence and the exponential growth of so called "big data"[5], increasingly advanced techniques of data analytics are being put to the service of businesses across a variety of sectors. Data and the ability to make sense of them constitute an essential asset to enable businesses to adjust their offerings to demand and attain one of the key attributes of industry 4.0: mass customization[6].

Data innovation has made its strides outside manufacturing, as well. Researchers from MIT reported that companies in the top third of their industry in the use of data-driven decision making were, on average, 5% more productive and 6% more profitable than their competitors.[7] In the B2C environment, digitization and connectivity have transformed the way in which products and services are sold and marketed to consumers.

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[3] *Id.*

[4] European Parliament, "Industry 4.0", http://www.europarl.europa.eu/RegData/etudes/BRIE/2015/568337/EPRS_BRI(2015)568337_EN.pdf

[5] Although the definition of «big data» is contested, there seems to be unanimity with regard to its reference to the three «Vs», i.e. Velocity, Variety and Volume. .It is generally understood as referring to large amounts of different types of data, produced at high speed from multiple sources, whose handling and analysis require new and more powerful processors and algorithms. See Autorité de la Concurrence and Bundeskartellamt, 'Joint Report on Competition Law and Data' (10 May 2016), at http://www.autoritedelaconcurrence.fr/doc/reportcompetitionlawanddatafinal.pdf; European Data Protection Supervisor, https://secure.edps.europa.eu/EDPSWEB/edps/Consultation/bigdata .

[6] European Parliament, supra note 4, p. 5.

[7] Andrew McAfee, Erik Brynjolfsson, 'Big Data: The Management Revolution' (2012) Harvard Business Review 61.

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Not only does the "digital footprint" left behind by consumers when surfing online allow businesses to make customized offers, obtaining a better match to their preferences: increasingly, it enables a variety of business models dependent on advertising, which becomes more profitable when specifically targeted to consumer preferences.

In sum, the current ecosystem both for production and distribution heavily depends on data collection and analysis, which in turn are favored by the ability of the technologies that we deploy to automatically generate data. However, this seemingly virtuous circle finds important limits in its reliance on personal data, i.e. any information relating to an identified or identifiable individual[8]. The individuals to whom those data relate (so called "data subjects") enjoy a panoply of rights with regard to the processing (a word that refers broadly to "any operation or set of operations performed upon personal data"[9]) and are entitled to hold data processing actors liable for breaches of those rights and of the general principles of data protection, as well as prevent non-compliant processing. Since the Lisbon Treaty, rights and principles of data protection law are firmly grounded on the fundamental right to data protection enshrined in article 8 of the EU Charter of Fundamental Rights[10]. Moreover, the increasing salience of data protection law in our society is generating a compliance culture, evidenced by several instances of market players using greater privacy[11] (or the more vague term of "data ethics") as a differentiator and source of competitive advantage[12].

In addition to limits arising from data protection law, the regime of data processing

[8] See Data Protection Directive, art. 2 (a).

[9] *Id.*

[10] See Juliane Kokott and Christoph Sobotta, 'The distinction between privacy and data protection in the jurisprudence of the CJEU and the ECtHR' (2013) 3 (4) *International Data Privacy Law*, 222; Raphaël Gellert and Serge Gutwirth, 'The legal construction of privacy and data protection' (2013) 29 (5) *Computer Law & Security Review* 522; Maria Tzanou, 'Data protection as a fundamental right next to privacy? 'Reconstructing' a not so new right' 2013(3) *International Data Privacy Law* 88; Orla Lynskey, *The Foundations of EU Data Protection Law* (Oxford University Press 2015), pp. 89-132.

[11] In this chapter, the term "privacy" is used as shorthand for "data privacy", which is the international version of the European concept of "data protection". The terms "privacy" and "data protection" are therefore used interchangeably in the text, unless specific reference is made to "privacy *and* data protection" which refer to the broader universe of the fundamental rights enshrined in article 7 and 8 of the EU Charter of fundamental rights.

[12] For a couple of examples in this sense see Rana Forhooar, 'Privacy is a competitive advantage', *Financial Times* (15 October 2017).

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chosen by a particular company can be constrained by the operation of competition law: if data constitutes the lifeblood of the information economy, it should not come as surprise that competition authorities pay particular attention to the possible exploitative or exclusionary consequences of a given data processing practice. Due to the recent and fast-moving rise of the data-driven economy, this is a relatively unchartered area for competition enforcers; but surely one of increasing attention. In this ecosystem, it becomes important to define a consistent process for competition authorities to identify the benefits generated by data practices, in order to distinguish between desirable and undesirable conduct. This challenge also brings to the fore one important question: to what extent should authorities account for data protection considerations in competition analysis? While only scratching the surface of these broad regulatory challenges, this chapter aims to illustrate one specific reason why developing an answer to this question is important: competition and data protection law have very different mechanisms to account for innovation in relation to the use of data.

To appreciate this point, it is helpful to distinguish two types of innovative data practices: data-driven innovation and data protection innovation. While data-driven innovation can be broadly characterized as the use of big data to improve production or distribution and better match customer preferences, data protection innovation creates market value through greater protection of personal data, directly responding to the concerns of mischiefs associated with the so called "surveillance capitalism"[13]. Before addressing in the following section how these two types of innovation can be accounted for in competition analysis, two disclaimers are in order: first, the focus will be exclusively on formal defences that can be used to advance data-related innovation in EU competition law, disregarding the flexibilities available within more general tools, such as market definition, market power and the construction of the applicable theory of harm[14]. This focus is purportedly restricted in order to illustrate the challenges in relying on the current

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[13] Shoshana Zuboff 'Big Other: Surveillance Capitalism and the Prospects of an Information Civilization' (2015) 30 *Journal of Information Technology*, 75.

[14] See for instance Marcus Glader, *Innovation Markets and Competition Analysis: EU Competition Law and US* (Edward Elgar, 2006). Pablo Ibáñez Colomo, 'Restrictions on Innovation in EU Competition Law' *European Law Review* 41 (2016) 2 pp. 201-219; Howard Shelanski, 'Information, Innovation, and Competition Policy for the Internet', (2013) 161 *University of Pennsylvania Law Review* 1663

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instrumentarium for innovation justifications in a world where competition is entangled with data protection considerations. Second, the analysis is limited to data protection considerations in what is often referred to as *antitrust* analysis, although the broader term "competition law" will be used here. The role of data protection considerations in merger control is out of the scope of this contribution, due to its substantially different type of analysis (inherently prospective and administrative in nature) and the different form of integration between the two disciplines in that context.

2. Competition law: what room for innovation considerations?

2.1. Efficiency and the (other?) goals of competition law

There are conflicting views in the literature and the case law concerning the aim that EU competition law is supposed to serve. According to the European Commission, competition law's ultimate aim is to protect consumer welfare and promote the efficient allocation of resources[15]. However, the European Court of Justice has endorsed a different formulation of this goal, emphasizing that competition law protects the "the structure of the market"[16], "competition as an institution"[17], or "competition as such"[18]. This formulation aligns with the conventional interpretation of the Treaty rules[19], and is

[15] See Commission Notice: Guidelines on the application of Article 81(3) of the Treaty [2004] OJ C101/97, para. 13; see also Commission Notice: Guidelines on the application of Article 81 of the EC Treaty to technology transfer agreements [2004] OJ C101/2, para. 5. See also Victoria Daskalova, Consumer Welfare in EU Competition Law: What Is It (Not) About?', 11 (1) Competition Law Review (2015) pp. 131-160

[16] See e.g. Case 85/76, *Hoffman La Roche AG v Commission*, [1979] ECR 461, para 91; *NV Nederlandsche Banden Industrie Michelin v Commission of the European Communities* (*Michelin I*), [1983] ECR 3461, para. 70.

[17] Opinion of Advocate General Kokott, Case C-95/04, *British Airways v. Commission* [2007] ECR I-2331, para 69.

[18] See e.g. Case C-501/06 *P, GlaxoSmithKline Services Unlimited tegen Commissie van de Europese Gemeenschappen*, [2009] ECR I-09291, para. 63; ECJ, Case C-209/10, *Post Danmark*, ECLI:EU:C:2012:172, paras 21-24.

[19] See, for instance: Ioannis Lianos, 'Some Reflections on the Question of the Goals of EU Competition Law', in Ioannis Lianos and Damien Geradin (eds.) *Handbook on European Competition Law: Substantive Aspects* (Edward Elgar, 2013); Oles Andriychuk, 'Rediscovering the Spirit of Competition: On the Normative Value of the Competitive Process' (2010) 6(3) European Competition Journal 575; Eugène Buttigieg, *Competition Law: Safeguarding the Consumer Interest. A Comparative Analysis of US Antitrust Law and EC Competition Law* (Wouters Kluwer, 2009); Josef Drexl, Wolfgang., Kerber, Ruppercht Podszun (eds.), *Competition Policy and the Economic Approach – Foundations and Limitations* (Edward Elgar, 2010); Paul Nihoul, 'Freedom of Choice': The Emergence of a Powerful Concept in European Competition Law' (2012) 3(12) Concurrences 55; Okeoghene Odudu, 'The Wider Concerns of

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reinforced by recent EU Commission's references to parallel Treaty goals that found protection through competition law, such as supporting growth, jobs and the competitiveness of the EU economy and fostering a competition culture[20].

In the face of the open question in economic theory on the nature of the relationship between market structure and innovation[21], Larouche and Schinkel submit that the EU's focus on the competitive process is precisely what gives competition enforcers sufficient latitude to protect "innovation paths", ensuring that firms have the ability to present new products and services to their customers[22]. Key to their argument is the recognition that for each success story, there are many similar undertakings that fail to win the favor of their customers; and that for this reason, it is important that competition law preserves the ability of those undertakings to "find their way to the market"[23]. In this sense, what has been called "freedom to compete"[24] may constitute an important element of innovation policy, under the assumption that it will produce dynamic efficiencies.

Accepting this premise, the question becomes whether this comprehensive notion of "competition" can be pinned down to more specific benchmarks. The debate in this respect has been framed as one of whether competition law should protect any value

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Competition Law' (2010) 30 (3) Oxford Journal of Legal Studies 599-613; Cristopher Townley, *Article 81 EC and Public Policy,* (Hart Publishing, 2009); Ben van Rompuy, *Economic Efficiency: The Sole Concern of Modern Antitrust Policy?* Non-Efficiency Considerations under Article 101 TFEU (Wouters Kluwer, 2012); D. Zimmer. (eds.) (2012), *The Goals of Competition Law*, (Edward Elgar, 2012).

[20] See Commission Staff Working Paper Accompanying the Report From The Commission on Competition Policy 2011, p.3; Joaquin Almunia, "Competition policy for the post-crisis world: A perspective", Speech/14/34 of 17th January 2014 delivered in Bruges, Belgium. At http://europa.eu/rapid/press-release_SPEECH-14-34_en.htm . For more detail, see Victoria Daskalova, 'Consumer Welfare in EU Competition Law: what is it (not) about?, (2015) (1) The Competition Law Review 11, 14.

[21] See in particular Joseph Schumpeter, *Capitalism, Socialism and Democracy* (Harper & Row, 1947); Kenneth J Arrow "Economic Welfare and the Allocation of Resources for Invention", in R. Nelson (ed.), *The Rate and Direction of Inventive Activities: Economic and Social Factors* (Princeton University Press 1962); Philippe Aghion et al., 'Competition and Innovation: An Inverted-U Relationship' 120 (2005) Quarterly Journal of Economics 701; Jonathan B Baker, 'Beyond Schumpeter vs. Arrow: How Competition Fosters Innovation', 3 (2007) *Antitrust Law Journal* 575.

[22] Pierre Larouche and Marteen Pieter Schinkel, 'Continental Drift in the Treatment of Dominant Firms: Article 102 TFEU in contrast to Section 2 Sherman Act', in Daniel Sokol (ed.), *Oxford Handbook of International Antitrust Economics* (Oxford University Press 2014), 153-187.

[23] Ibid.

[24] Pinar Akman, 'The Role of Freedom in Competition Law' (2014) 34 (2) *Oxford Journal of Legal Studies*, 183. Liza Lovdahl Gormsen, *A Principled Approach to Abuse of Dominance in European Competition Law* (CUP, 2012).

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other than economic efficiency[25], or whether broader public policy objectives should enter competition analysis[26]. While contributions to the debate have been insightful, one can observe a tendency to abstract from the economic character of competition law, quickly leading to the argument that competition enforcers should also protect other values[27]. In my view, this argument conflates the two different issues of definition of economic efficiency in EU competition law, on the one hand, and institutional coherence of EU on the other. The latter in particular is ensured by the general policy-linking clause of article 7 TFEU[28], as well as more specific clauses of articles 8 to 16 TFEU, which prevent the Union from disregarding objectives which may have little or even nothing to do with competition analysis. It is therefore only as a matter of *enforcement* that these additional policies become relevant, requiring the enforcing institution (a category that includes the judiciary) to consider the impact on additional values. Yet, it is submitted that this does not allow enforcers to imbue competition analysis with broader public policy objectives: their ultimate duty is to apply the rules so that competition in the internal market is not distorted[29], which is ostensibly an economic objective[30].

A different question, which remains open, is how that economic objective should be pursued in individual cases: for example, when do choice considerations outweigh the benefits of price cuts? When (that is, with reference to what interference threshold) does the goal of the internal market trump a "pure" competition analysis? While the latter

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[25] See in this regard, the 2014 annual conference held at the Ameican Antitrust Insittute entitled "The Inefficiencies of efficiency", and the related paper and supporting materials, at <http://www.antitrustinstitute.org/2014annualconference> accessed 15 September 2016. See also van Rumpuy (2012), supra note 19.

[26] See Townley, supra note 19; Giorgio Monti, 'Article 81 EC and Public Policy' 39 (2002) 5 *Common Market Law Review*, 1057.

[27] See e.g. Van Rumpuy, supra note 19; Suzanne Kingston, *Greening Competition Policy* (Cambridge University Press 2012); Federico Ferretti, *EU Competition Law, the Consumer Interest and Data Protection: The Exchange of Consumer Information in the Financial Sector* (Springer, 2014).

[28] "The Union shall ensure consistency between its policies and activities, taking all of its objectives into account and in accordance with the principle of conferral of powers».

[29] See Treaty on the Functioning of the European Union, Protocol (n.27) on the Internal Market and Competition.

[30] One may of course contend that laws and regulations contribute to the definition of the type of "competition" that is permitted in the internal market (e.g., outlawing conduct which constitute a financial or environmental offence), thereby injecting public policy considerations into the analysis. However, the effect of those public policy considerations is to constrain the interpretation of the enforcer, rather than creating discretionary mechanisms for policy leverage.

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question has found some specific answers in the case law[31], we are still in the dark when it comes to the meaning of "undistorted competition" as a trade-off between static and dynamic efficiencies.

Certainly, the preoccupation for the distortion of the competitive process is a central component of EU competition law. The key to understanding the notion of "competitive process" is not to be fixated on a static notion of economic efficiency, which is typically measured via price, quantity or even quality parameters given the prevailing market conditions. Taking into account dynamic efficiencies requires the adoption of a more complex "consumer choice" or "consumer sovereignty" approach, which has been defined as enabling customers to choose the products they consider as best to fit their needs[32] and to influence the competitive process acting according to their preferences[33]. This means that competition law should not protect only the consumers of a particular product: doing so may be in conflict with the interest of the consumers of other actual or potential products that would otherwise be brought to the market. As illustrated by Nihoul, this line of reasoning can be found in several cases, starting from *Hoffman La Roche* where the Court expressed its concern for:

[…] the objective of undistorted competition within the common market, because- unless there are exceptional circumstances which may make an agreement between undertakings in the context of article 85 and in particular of paragraph (3) of that article permissible, [these practices] are not based on an economic

[31] See for example Case 42/84, *Remia and Others v Commission* [1985] ECR 2545, para 22; Joined Cases C-403/08 and C-429/08, *Football Association Premier League Ltd and Others v QC Leisure and Others* and *Karen Murphy v Media Protection Services Limited* [2011] ECR I-9083, para 139. Joined Cases C-468/06 to C-478/06 *Sot. Lélos kai Sia and Others* [2008] ECR I-7139, paragraph 65.

[32] Paul Nihoul, The Emergence of a Powerful Concept in European Competition Law, available at SSRN: http://ssrn.com/abstract=2077694 or http://dx.doi.org/10.2139/ssrn.2077694, p. 5.

[33] Ioannis Lianos, 'The Price/Non Price Exclusionary Abuses Dichotomy: A Critical Appraisal' , (2009) 2 *Concurrences Review*, para 10, citing by way of comparison the different formulation by Neil Averitt and Robert Lande, 'Consumer Sovereignty: A unified theory of Antitrust And Consumer Protection law', 65 (1997) *Antitrust Law Journal* 713 ("the set of societal arrangements that causes that economy to act primarily in response to aggregate signals of consumer demand, rather than in response to government directives or the preferences of individual businesses").

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transaction which justifies this burden or benefit but *are designed to deprive the purchaser or restrict his possible choices of sources of supply* and to deny other producers access to the market[34] .

However, this choice-based perspective does not provide an exhaustive answer to the question of how much these dynamic considerations ought to be weighed in competition analysis. This in itself seems appropriate, given that the weight of innovation may vary significantly depending on the industry and the specific conduct at issue[35]. What is more problematic, however, is that such trade-offs are typically made in a "black box", without an effective ability of the concerned undertakings to contest the innovation theory put forward against it. This is due in no insignificant part to the limited room for defences within articles 101 and 102.

Given EU competition law's preoccupation with the competitive process in preserving consumers' ability to choose potentially new products or services, one would expect innovation considerations to be integral part of competition analysis. From a structural perspective, however, this is not the case: for both article 101 and article 102 TFEU, innovation arguments are relegated to the tail end of the enquiry. Recognizing this structural bias in competition analysis is important given the advantage that the European Commission (or the relevant competition authority) has in framing the case, imposing on the defendant the burden of rebutting the allegations. Due the burden imposed on defending undertakings and the limited review conducted by the EU's judicature[36], legal battles are often lost over the admissibility and success of defences to alleged infringements of EU competition law.

2.2. The place for innovation considerations in article 101

Article 101 (1) prohibits agreements or concerted practices that have as their object or

[34] ECJ judgment of 13 February 1979, Case 85/76 *Hoffmann-La Roche &. Co. AG v Commission* [1979] ECR 46, at 90.

[35] See Mark Lemley, 'Antitrust-Specific Policy for Innovation', (2011) 2011 *Columbia Business Law Review* 637.

[36] For a holistic assessment, see Nicolas Petit and Damien Geradin, "Judicial Review in European Union Competition Law: A Quantitative and Qualitative Assessment" in Massimo Merola and Jaques Derenne (eds.) *The Role of the Court of Justice of the EU in Competition Law Cases* (Bruylant 2012); Heike Schweitzer, 'Judicial Review in EU Competition Law', in Damien Geradin & Ioannis Lianos (eds.), *Research Handbook on EU Antitrust Law* (Edward Elgar Publishing, 2014).

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effect the prevention, restriction or distortion of competition. This means that there are two types of restrictions: one where sufficient proof of likely anticompetitive effects must be produced (restriction by effect); and the second one where such effects are presumed (restriction by object). The latter category is reserved to restrictions that reveal to be "sufficiently deleterious" to competition in light of the legal and economic context[37]. The Opinion of Advocate General Wahl in *Cartes Bancaires*[38] suggests that such revelation occurs on the basis of two alternative factors, i.e. economic science and the experience gathered by the court. Furthermore, the Commission observes that (non-exhaustive) guidance in this respect can be found in its block exemption regulations, guidelines and notices – in particular, suggesting that "blacklisted" or "hardcore" restrictions in those document would generally be considered "by object".

In the former category, a balancing takes place to determine whether the loss in *intra-brand* competition as a result of the agreement is necessary to improve *inter-brand* competition, or viceversa[39]. If this is the case, then the agreement falls outside article 101 (1) because it does not produce likely anticompetitive effects. However, when an agreement between undertakings falls within the prohibition of article 101 (1), it can still be exempted under article 101 (3) under the following well-known conditions:

a) The agreement must contribute to improving the production or distribution of goods or contribute to promoting technical or economic progress;
b) The agreement should allow consumers a fair share of the resulting benefits;
c) The restrictions must be indispensable to the attainment of these objectives; and
d) The agreement must not afford the parties the possibility of eliminating competition in respect of a substantial part of the products in question.

The articulation of each of these conditions has been addressed in detail by the

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[37] See Case C-67/13 P, *Groupement des cartes bancaires (CB) v European Commission*, EU:C:2014:2204, paras 359 and 360; Case C-209/07, *Competition Authority v Beef Industry Development Society Ltd and Barry Brothers (Carrigmore) Meats Ltd* (*BIDS)* [2008] ECR I-08637par 15; *Allianz Hungária Biztosító and Others*, C-32/11, EU:C:2013:160, para 34 and the case-law cited.
[38] Case C-67/13 P, *Groupement des cartes bancaires (CB) v European Commission.* ECLI:EU:C:2014:2204.
[39] See Joined Cases 56/64 and 58/66, *Consten and Grundig*, [1966] ECR 429. See also Commission Guidelines on the application of Article 81(3) of the Treaty (2004/C 101/08), para. 17.

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Commission Guidelines, its case-law as well as specific scholarly contributions on the subject[40]. For purposes of this discussion, it suffices to highlight an important difference between the balancing conducted under article 101 (1) and the similar exercise undertaken pursuant to article 101 (3). As clearly stated by the Commission[41] and the Courts[42], it is exclusively within article 101 (3) that an assessment is made of the pro-competitive benefits produced by that agreement, and of whether they outweigh the anti-competitive effects. Thus, the exercise conducted under article 101 (1) is one of different nature.

The Guidelines provide some more specific insight on what that exercise entails: first, it requires a comparison of the state of competition in the absence of the agreement with the one resulting from the existence of the same: the so called "counterfactual"[43]. Second, for the purposes of analysing the restrictive effects of an agreement, the Commission explains that it is normally necessary to define the relevant market[44], and to assess *inter alia* "the nature of the products, the market position of the parties, the market position of competitors, the market position of buyers, the existence of potential competitors and the level of entry barriers".

One may not call this analysis "balancing" in a technical sense[45], but it is in practice a multi-factor test with the same logic, where each element can weigh in favor or against a finding of anticompetitiveness. Though according to the Commission this exercise does

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[40] See e.g. Ben van Rumpuy, supra note 19; Saskia King (2015) *Agreements that restrict competition by object under Article 101(1) TFEU: past, present and future*. PhD thesis, The London School of Economics and Political Science. Available at <http://etheses.lse.ac.uk/3068/> accessed 10 September 2016.

[41] See Guidelines, para 11.

[42] See Case T-522/03, *Van den Bergh Foods*, [2003] II-04653 para 107; Case T-112/99, *Métropole télévision* (*M6*) and others, [2001] ECR II-2459, para 74.

[43] See for instance Damien Geradin and Ianis Girgenson, ' The Counterfactual Method in EU Competition Law: The Cornerstone of the Effects-Based Approach' in Jacques Bourgeois and Denis Waelbroeck (eds.) *Ten years of effects-based approach in EU competition law* (Bruylant, 2013).

[44] However, the Guidelines also to skip market definition and show anti-competitive effects directly, by analysing the conduct of the parties to the agreement on the mark. See Guidelines, para 27. However, it t is clear that such assessment can be done only for very serious violations, and always by adopting a tentative and hypothetical market definition to initiate the assessment.

[45] From a narrow definitional standpoint, balancing means "considering the competing interests of the litigants (or of society more generally) and giving judgment for the side with the weightier interests". See Patrick M. McFadden, The Balancing Test, (1988) 29 *Boston College Law Review* 585.

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not evaluate the benefits to competition stemming from the agreement, this type of evaluation is in fact often implicit in weighing different dimensions of competition, such as interbrand v. intrabrand. However, this test explicitly weeds out the assessment of improvements in quality, productivity, and dynamic efficiencies more generally, even though those may well have significant implications on interbrand and intrabrand competition.

On the other hand, the test incorporates an additional component which recognizes the necessity of certain restrictions of competition as a means to obtain legitimate objectives. This so called "ancillarity" concept has been implicitly part of EU competition law since *Societe' Technique Miniere v Mascinenabau Ulm*, where the Court held that an exclusive license to a distributor does not infringe article 101 (1) to the extent that it is "really necessary for the penetration of a new area by an undertaking"[46]. The issue of necessity was also central in evaluating the ancillarity of exclusive licensing to intellectual property in *Nungesser KG v Commission*[47] and *Coditel v Cine Vog Films Sa (No. 2)*[48], both revolving around the appropriate amount of exclusivity that would attract sufficient investment. Thus, an observation of these early cases suggested that, by allowing the imposition of restrictions commensurate to securing the appropriate incentive for investment, the Court effectively incorporated dynamic considerations through the backdoor of article 101 (1).

However, subsequent case law significantly narrowed the room for this dynamic interpretation: distilling the concept of ancillarity from the guidelines for the assessment of joint ventures (and in particular, the notices on ancillary restrictions[49] and on joint ventures[50]), the General Court ruled in *Metropole* that "ancillary restraints" refer to those that are "objectively necessary" to implement an operation[51]. Specifically, the evaluation

[46] Case 56/65 *Société Technique Minière v Maschinenbau Ulm* [1966] ECR 235, para 250.
[47] Case 258/78, *Nungesser KG and Kurt Eisele v Commission* [1982] ECR 2015.
[48] Case 262/81, *Coditel SA v Cine Vog Films SA* (No 2) [1982] [2001] ECR II-02459.
[49] Commission Notice on restrictions directly related and necessary to concentrations, OJ C 56, 05.03.2005, pp. 24-31.
[50] Commission Notice on the concept of full-function joint ventures under Council Regulation (EEC) No 4064/89 on the control of concentrations between undertakings, OJ C 66, 2.3.1998, pp. 1–4.
[51] Case T- 112/99 *Métropole télévision (M6), Suez-Lyonnaise des eaux, France Télécom and Télévision française 1 SA (TF1) v Commission of the European Communities* [2001] ECR II-02459, para 109.

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of "necessity" cannot imply an assessment, in the light of the competitive situation on the relevant market, of whether the restriction is indispensable to the *commercial success* of the main operation[52], or the establishment of the undertaking on the market on a long-term basis[53]. In other words, it appears that indispensability cannot be used to justify restrictions that secure profits going beyond short-term commercial viability. This rigid approach to the interpretation of necessity was confirmed by the recent judgment in *Mastercard v Commission*, where the Court held that the mere fact that the operation is more difficult to implement without the restriction, or even less profitable, cannot justify a claim 'objective necessity'[54]. Clearly, this stringent notion of "indispensability" does not bode well with the uncertainty that is intrinsic to innovation processes, or with their non-linear ability to generate additional consumer demand. As a result, using this limited escape permitted under article 101 (1) seems inappropriate in the absence of an ability to provide the decision-maker with a detailed plan of quantification, a timeline for materialization of the expected gains, and an explanation of why the restriction(s) would be indispensable to that end.

There is also another possible line of defence with regard to ancillarity. Whereas the majority of cases referred to a notion of ancillarity based on necessity for a commercial transaction, a few of them revolved around necessity for the fulfillment of a regulatory function entrusted to a particular private entity. The Court considered that account must be taken of the objectives pursued by the decision of the association, which it found to be connected "with the need to make rules relating to organization, qualifications, professional ethics, supervision and liability, in order to ensure that the ultimate consumer of legal services and the sound administration of justice are provided with the necessary guarantees in relation to integrity and experience". Subsequent cases have held this "regulatory ancillarity" doctrine applicable to other public authorities, such the Portuguese Order of Chartered Accountants (*Oficiais de Conta*)[55], the Association of

[52] Para 115.

[53] Para 120.

[54] Case C-382/12, *MasterCard Inc. and Others v European Commissio*n (not yet published), para. 91. Note that this seems to overrule the standard proposed by the Commission in its Guidelines, which refers to *difficulty* in implementation of the non-restrictive transaction as a valid basis for ancillarity claims. See 101 (3) Guidelines, para. 31 (emphasis added).

[55] Case C-1/12 *Ordem dos Técnicos Oficiais de Contas v Autoridade da Concorrência* [2013] 4 CMLR 20.

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Italian Geologists (*Italian Geologists*)[56] and the Italian Observatory for road traffic safety and social security (*Consulta generale per l'autotrasporto e la logistica*)[57]. The notion of public authority has been extended to international regulatory bodies recognized by international law, such as the International Olympic Committee (*Meca Medina*)[58]. However, it is more controversial whether such doctrine can be invoked by private organizations which have *not* been officially entrusted with authority by the State[59]. There is no case law supporting this interpretation, and the ECJ ruling in *Slovak Banks* seems to suggest otherwise, clarifying that it is not for private undertaking to take steps to ensure compliance with legal requirements.[60] This would seem to apply *a fortiori* where undertakings appeal to the pursuit of self-proclaimed public interests in order to take actions which amount to an infringment of competition law.

It is therefore through article 101 (3) that innovation can more realistically be pleaded as defence to what would constitute otherwise an agreement in violation of article 101. Although the test of article 101 (3) appears on its face as demanding as article 101 (1) when it comes to indispensability, the Commission has suggested a more flexible interpretation, by referring to any restriction being "reasonably necessary" for the efficiency in question[61]. Importantly, the focus of this analysis is not whether in the absence of the restriction the agreement would not have been concluded (as in the case of ancillarity), but rather whether more efficiencies are produced with the agreement or restriction than in the absence of the agreement or restriction[62]. Furthermore, the Guidelines specify that the Commission will not use (potentially demanding) hypothetical

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[56] Case C-136/12, *Consiglio nazionale dei geologi v Autorità garante della concorrenza e del mercato and Autorità garante della concorrenza e del mercato v Consiglio nazionale dei geolog*i [2013] 5 CMLR 40.

[57] Joined Cases C-184/13 to C-187/13, C-194/13, C-195/13 and C-208/13, *API - Anonima Petroli Italiana SpA,* ECLI:EU:C:2014:2147.

[58] Case C 519/04 P, *David Meca-Medina and Igor Majcen v Commission of the European Communities* [2006] ECR I-06991.

[59] In this sense, see Richard Wish and David Bailey, *Competition Law* (5th ed., Oxford University Press 2015) 141. Cf. Katarina Pijetlovic, *EU Sports Law and Breakaway Leagues in Football* (Springer 2015) 153–54.

[60] Case C-68/12, *Protimonopolný úrad Slovenskej republiky v Slovenská sporiteľňa a.s*., EU:C:2013:71, para. 20.

[61] Guidelines on the application of Article 81(3) of the Treaty, OJ C 101, 27.4.2004, p. 97–118, para 73.

[62] Id., para 74.

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or theoretical alternatives as benchmark for the counterfactual. Counterfactuals offered by the undertakings will be readily accepted, unless it is *reasonably clear* that there are realistic and attainable alternatives[63]".

The test under article 101 (3) presents at least four significant obstacles for the incorporation of data protection and data-driven innovation. First, it is too deterministic for the kind of innovation that is generated today by the accumulation and use of data. In particular, the test requires under its first prong to "describe and explain in detail what is the nature of the efficiencies and how and why they constitute an objective economic benefit"[64]. The explanation must include, in case the agreement has yet to be fully implemented, any projections as to the date from which the efficiencies will become operational so as to have a significant positive impact in the market[65]. In the case of data-driven innovation, this seems a little bit like fitting a square peg into a round hole: since it is claimed that big data is reversing the direction of discovery, using data to foster hypotheses rather than "prove" existing hypotheses[66], the idea of predetermining the outcome of the innovation process seems irreconcilable with the very concept of big data – at least as long as a competition authority will not relax the requirements of specificity and quantifiability[67]. In the case of data protection innovation, the main problem is again one of quantifiability and commensurability: without a specific value attributed to enhanced data protection, how can it be balanced against a restriction of competition?

A second hurdle consists in the narrow focus on economic efficiency for the purposes of the first prong of this test. The Guidelines limit the pursuit of goals of other Treaty provisions to the extent that they cannot be subsumed under the four conditions of Article 101(3)[68]. In fact, the practice of the Commission is to frame broader welfare benefits such

[63] Id., para 75 (emphasis added).
[64] Para 57.
[65] Para 58.
[66] Victor Mayer-Schoenberger and Yann Padova, 'Regime Change? Enabling Big Data through Europe's New Data Protection Regulation' (2016)17 Columbia Science and Technology Law Review 315, 319.
[67] For a recommendation in this sense, see Miguel De la Mano De la Mano, 'For the customer's sake: The competitive effects of efficiencies on the European merger control', 11 (2009) European Commission's Enterprise Directorate-General Enterprise Papers, para 52.
[68] Para 42.

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as environmental protection[69], sustainable development[70] and employment[71] as part of the efficiency test. However, this canonic interpretation of economic efficiency as the maximization of welfare can only capture improvement in privacy protection generated for consumers insofar as a market for the product with additional privacy can be readily identified[72]. Although one could make speculations about the desire of consumers to receive such protections, in the absence of specific surveys or other measurement techniques, they are likely to be dismissed as unsubstantiated.[73]

A third obstacle lies in the heterogeneous preferences of consumers, in relation to the requirement to pass on a fair share of the benefits to consumers. While the Commission has taken (in line with the case law) a broad interpretation which includes final and intermediate consumers[74], less flexibility is provided with regard to the identification of the group of consumers to which the benefits must accrue. In particular, the Commission requires the efficiencies generated by the restrictive agreement within a relevant market to be sufficient to outweigh the anti-competitive effects produced by the agreement within that same relevant market. Only in the case of substantial consumer commonality with the market affected by the restriction, can the efficiencies achieved in a separate market be taken into account[75]. It should be noted that the EU case law does not offer consistent support for this requirement[76], and most recently in *Mastercard* expanded the

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[69] *Exxon/Shell* (Case IV.33.640) Commission Decision 94/322/EC (1994)OJ L 144/20.

[70] *CECED (*Case IV.F.I/36.718) Commission Decision 2000/475/EC (2000) OJ L 187/47.

[71] *Syntehtic Fibers* (Case IV/30.810) Commission Decision 84/380/EEC (1984) OJ L 207/17, paras 37-38; *Stichting Baksteen* (Case IV/34.456) Commission Decision 94/296/EC (1994) OJ L 131/15, paras 27-28; *Ford/ Volkswagen* (Case IV/33.814) Commission Decision 93/49/EC [1993] OJ L 20/14.

[72] A fitting example to give an idea of this type of complexity is the "Chickens for Tomorrow" case decided in 2015 by the Dutch competition authority. The authority released a full paper explaining the economic analysis it conducted to attribute a market value to increased animal welfare. See Authority for Consumers and Markets, 'ACM's analysis of the sustainability arrangements concerning the 'Chicken of Tomorrow'' (26 January 2015), available at https://www.acm.nl/en/publications/publication/13789/ACMs-analysis-of-the-sustainability-arrangements-concerning-the-Chicken-of-Tomorrow.

[73] For the same reason, Townley advocates for the incorporation into the assessment of wider social and environmental costs and benefits, for which there is no market price. See Townley, supra note 19.

[74] Para 84.

[75] See Guidelines, para 43, referring to Case T-131/99, *Shaw* [2002] ECR II-2023, paragraph 163; Case C-360/92 P, *The Publishers Association v Commission* [1995] ECR I-23, paragraph 29. See also *Continental/United/Lufthansa/Air Canada* (Case COMP/39.595) Commission Decision of 23 May 2013.

[76] See *Compagnie Générale Maritime and Others*, T-86/95 [2002] ECR II-1011, paras 343-345; Case T-168/1 *GlaxoSmithKline Services Unlimited v Commission* [2006] ECR II-2969, para 248.

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scope for cross-market efficiency analysis by accepting efficiencies in a connected market even in the absence of consumer commonality, as long as those benefits produce "objective advantages" for the consumers in the market concerned[77]. However, while the feedback effects generating the objective advantages in that judgment were grounded on the clear interdependency between two-sided payment markets, it seems harder to claim such objective advantage where the product in one market is simply used as "bait" for acquiring customer data to be used in a variety of different markets, often unbeknownst to consumers and for different purposes than those upon which they agreed to the disclosure. On a more positive note, the "objective advantage" formulation opens the possibility to consider broader benefits than the efficiencies described in the Guidelines, though it remains to be seen whether the advantage must materialize on the other side of a two-sided market. What this implies in terms of data-driven innovation, in particular when it comes to personal data, is that the test will not be satisfied in the absence of a feedback loop going back to the market in which the customer data were collected. The benefit does not need to accrue to each and every consumer of that group[78], but one may wonder whether there would be a sufficient number of consumers that for instance consider behaviorally targeted advertising an "objective advantage".

Finally, the fourth obstacle to the incorporation of innovation considerations within article 101 (3) is the fulfillment of its fourth condition (no elimination of competition). While this condition provides a safeguard against efficiencies that undermine the competitive process, the challenge lies in fitting into this notion of competition a dynamic perspective – competition *for* the market as opposed to competition *in* the market. This seems to be disfavored by the Commission's reliance on the presumption that when competition is eliminated, the agreement's long-term welfare losses will outweigh short-term efficiency gains[79]. The challenge presented by this condition for the incorporation of dynamic considerations is also apparent in the case for restrictive agreements that could potentially be justified on data-driven innovation grounds: for example, a shared data repository among competitors to keep track of trends and predict future prices on the

[77] *MasterCard and Others v Commission*, C-382/12P, EU:C:2014:2201, para 241.
[78] See Guidelines, para 86 ; and *Asnef-Equifax v Ausbanc* C-238/05 [2006] ECR I-11125, para 70.
[79] Para 105.

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basis of recent historical data might increase industry know-how, but also constitute a red flag for its facilitation of collusion. A different reasoning would apply to apparently anticompetitive conduct which produces important data protection innovation, such as for example a boycott amongst browser vendors against websites that track users across the web. In that context, it can be argued that the condition of "no elimination of competition" militates against granting an article 101 (3) exemption for an action that proactively shapes a particular consumer demand for privacy (as it eliminates price competition that would otherwise exist), but legitimates one aimed at satisfying an existing demand for it (as the reduction in price competition is outweighed by the increase in another existing dimension of competition).

2. 3. The place for innovation considerations within article 102

Article 102 TFEU prohibits undertaking from abusing their dominant position in the market, making reference to an indicative list of abusive practices. However, that list is incomplete on the conditions under which such practices materialize. It has therefore been the task of the Commission and the Courts to give content to such categories. This has led to the identification of a number of categories of conduct falling within the definition of so called "*prima facie*" abuse. This characterization, in recognition of the inherent difficulty in the area of unilateral conduct to distinguish between aggressive competition from conduct which harms consumers, rules out the existence of so called "per se" or "object" abuses under article 102[80]. The conclusive establishment of abuse can indeed be avoided by a defendant, either showing efficiency benefits that outweigh any anticompetitive effects, or alleging an objective justification for that conduct.

This bi-partite structure of article 102, where efficiencies are not assessed as integral part of the initial assessment but on a separate and additional step, is not immune from criticism. It is typically justified on the premise that a dominant undertaking has the special responsibility not to distort competition, which is already endangered by the presence of the undertaking in question[81]. This section does not aim to make sense of the

[80] See in this sense, the Opinion of AG Colomer in Joined Cases C-468/06 to C-478/06 *Sot. Lélos kai Sia v GlaxoSmithKline* [2008] ECR I- 7139, para 75.
[81] See *Hoffman la Roche*, para 91.

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test devised for *prima facie* abuses, which has been discussed at length in the literature[82]. In contrast, it provides highlights of the difficulties faced by defendant in raising innovation considerations as justifications.

The first, most obvious ground for defence is the efficiency justification. While the case-law has not always been consistent on the admissibility of such justifications[83], it is now well settled that in an abuse of dominance inquiry, "it has to be determined whether the exclusionary effect [...] may be counterbalanced, or outweighed, by advantages in terms of efficiency which also benefit the consumer"[84].

Furthermore, since its 2009 Guidance Paper, the Commission offered a framework for evaluating efficiencies within article 102 which bears striking resemblance with 101 (3). Its 4 conditions are:

(a) the efficiencies have been, or are likely to be, realised as a result of the conduct;

(b) the conduct is indispensable to the realisation of those efficiencies ;

© the likely efficiencies brought about by the conduct outweigh any likely negative effects on competition and consumer welfare in the affected markets; and

(d) the conduct does not eliminate effective competition, by removing all or most existing sources of actual or potential competition[85]

This framework, subsequently endorsed by the Court of Justice in *Post Danmark* and

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[82] See, among the many excellent contributions, Pinar Akman, The Concept of Abuse (Hart Publishing, 2012); Ekatrina Rousseva, *Rethinking Exclusionary Abuses in EU Competition Law: Rethinking Article 82 of the EC Treaty* (Hart Publishing, 2010); Renato Nazzini, *The Foundations of European Union Competition Law: The Objective and Principles of Article 102* (Oxford University Press 2011); Liza Lovdahl-Gormsen, A Principle Approach to Abuse of Dominance (Cambridge University Press 2012).

[83] Compare: Case 322/81, *Michelin I* [1983] ECR I-3461, para 85; C-202/07, *France Télécom* [2009] ECR I-2369, para 217, *Atlantic Container* [1983] ECR I-3461 [2003] ECR II-03275 para 1112; With T-203/01, *Michelin II [*2003] ECR II-4071,para 98; C-95/04 P, *British Airway* [2007] ECR I-2331paras 69 and 86; T-201/04, *Microsoft*, 2007 II-3601para 1135; C-52/09, *TeliaSonera*, [2011] ECR I-527, para 76.

[84] Case C-95/04 P, *British Airways plc v. Commission* [2007], ECR I-2331.

[85] Guidance Paper, para 30.

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Telia Sonera[86], was hailed as a welcome step towards the legalization of a more economic approach to article 102[87]. But not without some criticism for the high bar imposed on defendants for efficiency claims[88]: due to it being essentially a replication of article 101 (3), it carries with it many of the problems illustrated in section 2.2. Instead of repeating the same analysis conducted there, it is sufficient to make two observations: first, the conditions for efficiency under 102 do not contain a requirement of "fair share" of benefits to consumers. While this appears to be a relaxation of the bar imposed in article 101 (3), the Guidance paper in fact suggests that this is inextricably linked to, and arguably subsumed within, the fourth condition: "In [the] absence [of rivalry between undertakings] the dominant undertaking will lack adequate incentives to continue to create and pass on efficiency gains"[89]. Second, the requirement of no elimination of effective competition appears to be significantly more restrictive in the case of a dominant company. The Paper's assertions that "Where there is no residual competition and no foreseeable threat of entry, the protection of rivalry and the competitive process outweighs possible efficiency gains[90]" reveal a fundamental distrust for innovations carried out by dominant firms who can act unconstrained from competition in the relevant market. This is only partly mitigated by the following statement that "[E]xclusionary conduct which maintains, creates or strengthens a market position approaching that of a monopoly can *normally* not be justified on the grounds that it also creates efficiency gains"[91]. All in all, the wording suggests that the conduct of a dominant firm (at least when it approaches a monopoly) will be scrutinized under article 102 for any potential exclusionary effects it may cause - even where it is proven to generate immediate and substantial efficiencies.

[86] Case C-209/10*, Post Danmark v. Konkurrencerådet, para. 42.*; Case C-52/09, *TeliaSonera*, [2011] ECR I-527, para 76.

[87] Christian Alborn and Jorge Padilla, 'From Fairness To Welfare: Implications for the Assessment of Unilateral Conduct under EC Competition Law", in Mel Marquis and Claus-Dieter Ehlermann, *European Competition Law Annual 2007: A Reformed Approach to Article 82 EC* (Oxford University Press 2008).

[88]See e.g. John Temple Lang, 'Judicial review of competition decisions under the European Convention on Human Rights and the importance of the EFTA court: the Norway Post judgment', (2012) 38 *European Law Review* 464, at 487; Hans W Friederiszick and Linda Gratz, 'Dominant and Efficient – On the Relevance of Efficiencies in Abuse of Dominance Cases', in: OECD Policy Roundtables, The Role of Efficiency Claims in Antitrust Proceedings 2012 (DAF/COMP(2012)23), at 38.

[89] Para 30.

[90] Para 31.

[91] Ibid. (emphasis added).

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In addition to efficiency, a firm can raise a defence based on an objective justification. This defence relates to public policy concerns or other objective factors, i.e. that are beyond the control of the undertaking, which force it to take a particular course of conduct[92]. For example, a refusal to deal could be justified by a legitimate concern that sharing a facility would undermine its quality, security, or safety[93]. Likewise, a restriction of parallel trade can be justified on the basis of differences in national regulation, to the extent that (a) State intervention is one of the factors liable to create the opportunities for parallel trade in the first place and (b) a different interpretation of Article 102, rejecting any possibility of justification, would have left dominant firms only the choice 'not to place its medicines on the market at all in a Member State where the prices of those products are set at a relatively low level[94]'. Along the same lines, one can infer from the Commission's decision in *Port of Genoa*[95] and *Spanish Airports*[96] that the protection of the environment may constitute an objective justification to a *prima facie* abuse[97].

Potentially, this justification is highly valuable for a dominant undertaking in the data-driven economy, as it opens the door for the incorporation of data protection innovation so long as the restrictions of competition are not disproportionate (for example, installing automatic browser ad blocking which by default blocks all domains from a competitor). However, it is important to bear in mind that not all actions can be taken by an undertaking in the name of objective necessity: the Commission warns in its Guidance paper that proof of whether conduct of this kind is objectively necessary must take into account the competences defined by the applicable regulatory framework, including by recognizing that it is normally the task of public authorities to set and enforce public

[92] Ekatrina Rousseva, 'The Concept of Objective Justification' 2 (2006) 2 Competition Law Review, 27, 28-29.
[93] FAG-Flughafen Frankfurt/Main AG, OJ 1998 L 72/30.
[94] Joined Cases C-468/06 to 478/06, *Sot Lelos kai Sia v GlaxoSmithKline*, para 67-68.
[95] 97/745/EC: Commission Decision of 21 October 1997 relating to a proceeding pursuant to Article 90 (3) of the EC Treaty regarding the tariffs for piloting in the Port of Genoa ; OJ L 301, 5.11.1997, p. 27–35.
[96] 1999/199/EC: Commission Decision of 10 February 1999 relating to a proceeding pursuant to Article 90 of the Treaty (Case No IV/35.703 - *Portuguese airports*) (notified under document number C(1999) 243); OJ L 69, 16.3.1999, p. 31–39.
[97] T. Vijver , *Objective justification and Prima Facie anti-competitive unilateral conduct : an exploration of EU Law and beyond*. University of Leiden Dissertation (2014). Available at https://openaccess.leidenuniv.nl/handle/1887/29593.

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health and safety standards[98]. As the Court explained in *Hilti*, "it is not the task of a dominant undertaking to take steps on its own initiative to exclude products which it regards, rightly or wrongly, as dangerous or inferior to its own product".[99] This line of cases seems to suggest that, somewhat in parallel with article 101 (1), the use of public policy as a justification is confined within the competences that are attributed to undertakings under the existing regulatory framework. Unlike with article 101 (1), however, this defence seems to leave room for undertakings who have *not* been officially entrusted with a public function to take initiative for the protection of public policy, to the extent that this is recognized as a valid public policy and does not clash with the regulatory system in place. Once again, the concept of objective justification implies that the measures taken must be proportionate, meaning that they will not be considered valid if there are less restrictive alternatives. From a data protection innovation standpoint, it will be interesting to see whether a broader concept of restrictiveness could be used, which is not limited to the effects on competition, but considers the impact of a measure on conflicting rights and interests protected by the Treaty (such as freedom of expression, for instance). Perhaps one way to reconcile the test with the importance of human rights in the EU is by reading the requirement of respect for fundamental rights into the notion of competition that the Treaty protects (as would be required by article 51 of the Charter of Fundamental Rights)[100].

A particular example of objective justification is the conduct of "competition on the merits". By this term, courts generally refer to a conduct whereby an undertaking takes reasonable and proportionate steps to protect its own commercial interests, even if such protective measures might have some exclusionary effect[101]. It is thus apparent that this

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[98] Para 29.

[99] Case T-30/89 *Hilti v Commission* [1991] ECR II-1439, paragraph 118-119; See also Case T-83/91 *Tetra Pak International v Commission* (Tetra Pak II) [1994] ECR II-755, paragraphs 83 and 84 and 138.

[100] According to article 51, "The provisions of this Charter are addressed to the institutions and bodies of the Union with due regard for the principle of subsidiarity and to the Member States only when they are implementing Union law. *They shall therefore respect the rights, observe the principles and promote the application thereof in accordance with their respective powers*." (emphasis added).

[101] See for example *United Brands*, para 189. See also e.g. Joined cases C-468/06 to C-478/06 *Sot. Lélos kai Sia v. GlaxoSmithKline* [2008] ECR I-7139, para 69; Case T-65/89 *BPB Industries and British Gypsum v Commission* [1993] ECR II-389 para 9; *Deutsche Telekom* [2010] ECR I-9555 para 177; *AstraZeneca,*

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concept provides more leeway than the above mentioned efficiency defence. The ruling of the Court in *Post Danmark I* offered a more telling characterization of the concept:

> "[N]ot every exclusionary effect is necessarily detrimental to competition […] Competition on the merits may, by definition, lead to the departure from the market or the marginalisation of competitors that are less efficient and so less attractive to consumers from the point of view of, among other things, price, choice, quality or innovation."[102]

It follows that any conduct appealing to customers on the basis of price, choice, quality and innovation constitutes competition on the merits, as long as the pursuit of those dimensions of competition is accomplished through reasonable and proportionate measures by the dominant firm. Arguably, the special responsibility attributed to such firms by EU competition law justifies a finding of infringement where the exclusionary effect of a measure outweighs its pro-competitive impact on any of those dimensions. This explains the "proportionate" part of the defence; however, it still leaves us with the open question of what constitute "reasonable" steps, which seems to imply a balancing test. While it is impossible in the absence of clarifying decisions to forecast all possible flavors of "unreasonableness", one discerning line to narrow down the ranges of conduct that are admissible to protect one's own commercial interest could be found in the violation of other laws. It is true, in that respect, that the Court ruled in *Astra Zeneca* that "the illegality of abusive conduct under Article 102 TFEU is *unrelated* to its compliance or non-compliance with other legal rules and, in the majority of cases, abuses of a dominant position consist of behaviour which is otherwise lawful under branches of law other than competition law"[103]. However, *Astra Zeneca* concerned the different scenario where an undertaking had *not* infringed the law applicable in addition to competition law –but rather used that law strategically. As a result, it is arguable that the "unrelated" characterization in that ruling should not be interpreted *per se* as a bar to considering non-compliance with "extra-competition" rules as a factor in determining whether a particular conduct constitutes competition on the merits.

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para 130; *Konkurrensverket v TeliaSonera Sverige AB*, [2011] ECR I-527, para 24; *Sot. Lélos*, supra note 94, para 69. See also Case T-219/99 *British Airways v Commission* [2003] ECR II- 5917, para 243.

[102] *Post Danmark*, para. 19.

[103] C 457/10, *AstraZeneca AB and AstraZeneca plc v European Commission*, ECLI:EU:C:2012:770, para 132 (emphasis added).

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In that judgment, the Court highlighted the difference between the objective of Article 102 and the primary purpose of the EU legislation invoked by the defendant (Directive 65/65)[104]. This difference of objectives prevented compliance with pharmaceutical regulation from being used as a "safe harbor" for purposes of enforcement of competition law, which would otherwise be required from a *ne bis in idem* perspective. This aligned with previous cases where the Court rejected the idea of non-intervention by competition law into the self-contained regime for telecom regulation, by holding that even the encouragement of a given practice by the regulator could not absolve the dominant company from its special responsibility under Article 102[105]. However, the Court also explicitly recognized in *Telia Sonera* the inapplicability of Article 102 TFEU to conduct that is explicitly *required* by national legislation, or *where the legal framework eliminates any possibility of competitive activity*[106]. This means that competition law will apply irrespective of the obligations imposed by national legislation, so long as those obligations do not force undertakings from engaging in conduct which prevents, restricts or distorts competition[107].

If competition law is not *required* (except for those isolated circumstances) to take into account the regulatory frameworks in assessing the conduct of an undertaking, nothing seems to prevent competition authorities from doing so to give content to the concept of "competition on the merits", a concept to which neither the Commission's Guidelines nor the case law have given substantive meaning (despite the recommendations made by the OECD in this sense)[108]. This is a powerful instrument to encourage innovation alongside the boundaries of legitimacy offered by concurrently applicable regulatory frameworks. However, it does not provide a silver bullet for all possible interactions between

[104] Council Directive 65/65/EEC of 26 January 1965 on the approximation of provisions laid down by Law, Regulation or Administrative Action relating to proprietary medicinal products. OJ 022 , 09/02/1965 pp. 369 -373.

[105] *Deutsche Telekom*, para. 84. See also case 123/83 *Clair* [1985] ECR 391, para. 23 (finding that the mere fact that an agreement has been sanctioned by the public authority, thereby making it binding, cannot remove it from article 101 (1)).

[106] *Telia Sonera*, para 49 (emphasis added).

[107] Para 50.

[108] Wolf Souter, *Coherence in Competition Law* (Oxford University Press 2015) p. 110-111; referring to OECD Roundtables on Competition Policy Working Paper No. 56 (OECD Publications, 2005) . <https://www.oecd.org/competition/abuse/35911017.pdf> accessed 15 September 2016.

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competition and data protection laws (a point developed more in depth in Section 4 below) and may well result in adverse effects on data protection or even on competition, if not used properly. As it will become clear in the following section, there are significant specificities in the concept of innovation recognized under data protection law, suggesting that the analysis undertaken in that context may not always be transposable in the competition field, and viceversa.

3. The place for innovation in data protection law

3.1. A helicopter view of EU data protection law: spotting innovation honey pots

Data protection law is an expanding body of EU law. The legal instrument upon which it has been based for over 20 years is the Data Protection Directive (DPD)[109], which stipulates a dual objective: first, protecting the fundamental rights of individuals, and in particular the right to privacy with respect to the protection of personal data; second, the free flow of personal data in the internal market[110]. The Directive sets the standards for data protection by EU Member States, thereby preventing such grounds from being raised as a barrier to data flows.[111] On 25 May 2018, the Directive will be replaced with Regulation EU/2016/679, also known as the General Data Protection Regulation (GDPR), which strengthens the level of protection and introduces important changes to the existing regulatory regime[112]. It should also be noted that, much like in EU competition law, a number of guiding documents have been issued to assist in the interpretation of key concepts. These guidelines are offered in the form of "advisory

[109] Directive 95/46 of the European Parliament and of the Council of 24 October 1995 on the protection of individuals with regard to the processing of personal data and on the free movement of such data; OJ L 281, 23/11/1995, p. 31-50.

[110] Orla Lynskey, *The Foundations of EU Data Protection Law* (OUP, 2015), pp. 46-88.

[111] In practice, conflicts between the two objectives may arise, for example with regard to how Member States define the implementation of the rules or the exceptions that can be invoked . See e.g. case C-73/07 *Tietosuojavaltuutettu v Satakunnan Markkinapörssi OY, Satamedia* [2008] ECR I-09831.

[112] Although the current analysis takes into account both of these instruments, for a comprehensive picture one should take into account the situation in different Member States. There are indeed many areas where Member States are given wide latitude, even under the GDPR, to implement EU data protection law.

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opinions" by the advisory body called "Article 29 Working Party" (hereinafter "A29WP"), composed by representatives of different data protection authorities in Europe[113], and which after entry into force of the GDPR will be replaced by a similar body with expanded competences - the European Data Protection Board.

By way of introduction, it should be borne in mind that data protection law applies to the processing of *personal* data. This means that data processing entities will not be required to follow the rules set forth in the Regulation whenever the data being processed "does not relate to an identified or identifiable natural person" (in technical jargon, a "data subject"[114]) or is "rendered anonymous in such a way that the data subject is no longer identifiable"[115]. It follows that complete anonymization of the data collected would in principle represent a viable strategy for companies to engage in limited profiling informing a company's strategies, to the extent that such profiling does not raise to a level of specificity enabling the identification of any particular individual[116]. However, recent studies of re-identification have shown that true anonymization is extremely hard to attain in a world of big and widely available data: simply stripping the data of some identifiers is unlikely to do the job[117]. Escaping the application of data protection rules requires the deployment of "state of the art" anonymization techniques, possibly involving a combination of multiple measures. Moreover, while these techniques preserve the ability to derive insights from aggregate data, they may lessen the utility of the datasets concerned to provide correlations between relevant attributes and observed or

[113] One can question whether the same effect can be ascribed to the soft law produced by this body as with the various Guidelines and Notices in EU competition law, which the European Court of Justice has found to trigger legitimate expectations (see e.g. Joined Cases C-189, 202, 205, 208 & 213/02 *Dansk Rørindustri*, para. 223). Nevertheless, this paper proceeds on the assumption that such guidelines will be followed, to the extent they have not been superseded by the GDPR.
[114] See article 4, (1) GDPR.
[115] To make this determination, the Regulation focuses on "whether means are reasonably likely to be used to identify the natural person, account should be taken of all objective factors, such as the costs of and the amount of time required for identification, taking into consideration the available technology at the time of the processing and technological developments". See Recital 26 GDPR.
[116] Importantly, such profiling may be used only in limited circumstances to take decisions based on automated processing that significantly affect individuals. See art. 22 GDPR, and the discussion in section 3.3 below.
[117] See Paul Ohm, 'Broken Promises Of Privacy: Responding to the Surprising Failure of Anonymization', 57 (2010) *UCLA Law Review* 1701,See also https://datafloq.com/read/re-identifying-anonymous-people-with-big-data/228.

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inferred behavior, which enable segmentation of population on the basis of common patterns.

Recognizing the challenge, the Regulation addresses a half-baked form of anonymization, called "pseudonymization", which consists of "the processing of personal data in such a manner that the personal data can no longer be attributed to a specific data subject without the use of additional information, provided that such additional information is kept separately and is subject to technical and organisational measures to ensure that the personal data are not attributed to an identified or identifiable natural person"[118]. This will be typically be the case for statistical research, which is defined as "any operation of collection and the processing of personal data necessary for statistical surveys or for the production of statistical results" and presupposes that its results or the personal data used to obtain them are not used in support of decisions regarding any particular legal person[119]. For all research, including the broad category of scientific research[120], pseudonymization is merely one of the possible technical and organizational measures to be adopted in order to ensure data minimization, where the ultimate goal is to have in place appropriate safeguards for the rights and freedom of the data subject[121]. Nevertheless, the Regulation is clear that, where possible, research purposes should be fulfilled anonymizing any further processing of the dataset[122]. In return for these obligations, processing for research purposes benefits from a number of derogations, some of which directly applicable[123] while others depend on Member State implementation[124]. Additionally, if an organization adopts pseudonymization, it will be exempted from compliance with a number of obligations under the Regulation, such as providing data subjects with access, rectification, erasure or data portability

[118] See art. 4 (5).
[119] Recital 162 GDPR.
[120] The term is not defined by the Regulation but the examples provided refer to a wide range of scenarios, such as technological development and demonstration, fundamental research, applied research, and privately funded research. See Recital 159 GDPR.
[121] Article 89 (1) GDPR.
[122] *Id.*
[123] See articles 14 (information to be provided), 17 (right to erasure) and 21 (right to object) GDPR.
[124] In particular, the rights established in articles 15 (right to access), 16 (rectification), 18 (restriction of processing) and 21 (object), in accordance with article 89 (2) GDPR.

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possibilities[125]. However, these exemptions do not relieve organizations from meeting all the remaining obligations, which include, most notably, the need to identify a legitimate legal basis for processing and the compliance with the principles of data protection: namely, the principles of lawfulness, fairness and transparency, purpose limitation, data minimization, storage limitation, and integrity and confidentiality[126]. The only exception to such principles is provided by article 5 (1) (b) and 5 (1) (e) for processing done for research purposes, and concerns the applicability of the principles of purpose limitation and storage limitation: given that it is not always possible to identify the purpose of processing in research, further processing and longer periods of processing are admissible when done solely for research purposes. This constitutes an important concession from an innovation standpoint, although conditional on the adoption of adequate safeguard measures in accordance with article 89 (1)[127]. Unfortunately, the absence of further details on the notion of appropriate safeguards for research purposes makes it difficult at present to assess the scope of application of the research exemption (i.e., what type of research and under what conditions), as that will largely depend on the national implementation of the GDPR.

Leaving aside the special cases of anonymized data and processing for research purposes, the key hurdle for the permissibility of data-driven innovation under EU data protection law is the existence of a valid legal basis for processing. Data protection law sets out a permission-based regime for the processing of personal data: unlike competition law, where business activity is permitted unless specifically forbidden, the regime for data protection law is one of authorization: data processing is forbidden, unless specifically permitted by law. Entities intending to process personal data must therefore identify a

[125] See art. 11.

[126] Most notably, the principles of data quality listed in articles 6 of the DPD and 5 of the GDPR. Such principles include lawfulness, fairness and transparency; purpose limitation; accuracy; data minimization; storage minimization; integrity and confidentiality. To these, the Regulation adds a general obligation of "accountability", which implies the ability for each data controller to demonstrate compliance with all the above mentioned principles. See art. 5 (2) GDPR.

[127] In this respect, Recital 156 GDPR refers to technical and organizational measures aimed at minimizing the processing of personal data in pursuance of the proportionality and necessity principles. It also specifies that the processing of personal data for scientific purposes should comply with other relevant legislation, such as that on clinical trials.

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legal basis justifying their processing, in addition to the other requirements imposed by data protection law. Consent of consumers to the processing of data for a specific purpose constitutes merely one of the possible justifications for "lawful processing[128]". Aside from exceptional situations in which processing is necessary for the exercise of a public function, for the fulfillment of a legal obligation or to protect the vital interest of an individual, two frequently used grounds are available which may not be immediately ascertainable from the terms and conditions governing the relationship between a data subject and a "data controller" (i.e. the entity which defines the means and purpose of processing[129]).

First, processing is lawful whenever it is "necessary for the performance of a contract to which the data subject is party, or in order to take steps at the request of the data subject prior to entering into a contract"[130]. This means that essentially any processing which is implicit and instrumental to the contract will not require an additional consent to that required for the establishment of the object of the parties' agreement: an example often used is the use of one's name and address for the delivery of an online purchase. Since innovation presumes an alteration of existing products, services or operations, the claim that a new processing of personal data is essential appears to be weak or difficult to maintain at best, if the contract could be previously established or performed in a satisfactory way without the use of such personal information. The interpretation of "necessity" by the Article 29 Working Party is quite stringent, and seems unlikely to be able to accommodate any collection or use of personal data that could not be reasonably inferred from the stated purpose of processing[131].

Second, and most importantly from an innovation perspective, processing can be justified if it is "necessary for the purposes of the legitimate interests pursued by the controller or by a third party, except where such interests are overridden by the interests for fundamental rights and freedoms of the data subject"[132]. This caveat is slightly modified

[128] See Article 7 of the DPD, and article 6 of the GDPR.
[129] See article 4, (7) GDPR.
[130] See art. 5 (b).
[131] Article 29 Working Party Opinion 06/14 on Legitimate Interest, pp. 16-17.
[132] See art. 6 (1) (f) GDPR.

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under the GDPR, which extends it to the interests *or* fundamental rights and freedoms of the data subject[133], expanding the range of elements that may be balanced against the interests of the controller or third parties[134]. The "legitimate interest" ground undoubtedly constitutes an appealing alternative to consent for innovations that are difficult to predict at the beginning of a contractual relationship, and especially so after the GDPR has introduced a "freely given" requirement for consent, clarifying that it is insufficient to justify processing when there is a significant imbalance between the position of the data subject and the controller[135] and that utmost account will be taken whether the performance of a contract is conditional on the processing of personal data that is not necessary for the performance of the contract[136]. Thus, the legitimate interest offers the advantage to enable data controllers to do away with those stringent requirements of data subject permission, provided they can show any interest that is real (non speculative), sufficiently specific and "accepted by law"[137], as long as they adopt safeguards which sufficiently protect the interests or fundamental rights of the data subject.

At the same time however, the reliance on legitimate interest does not exempt the data controller from the need to declare that interest in order to ensure fair and transparent processing[138], and to conduct the balance of that interest with the interests or fundamental rights and freedoms of the data subjects ahead of processing. This means that the more significant implication of relying on this ground for processing is the greater "responsibilization" of data controllers, who are accountable for their self-assessment on the adequacy of the balancing, in addition to being expected to adopt technical and organizational measures to ensure the continued adequacy of their processing[139]. Such

[133] This is simply the correction of a mistake in transcription made with the DPD, as noted by the A29WP contrasting the official text in different languages. See A29WP, WP 217, p. 29.
[134] Article 6 (1) (f) GDPR also indicates that the weight rights or interests to be balanced is particularly important when the data subject is a child.
[135] Recital 43 GDPR.
[136] Article 7 (4) GDPR.
[137] See A29WP Opinion 06/14, supra note 131, p. 25.
[138] See articles 13 (1) (d) and 14 (2) (b) GDPR.
[139] This is a corollary of the principle of accountability established in article 5 (2) GDPR, which requires data controllers to be responsible for, and be able to demonstrate, compliance with the principles relating to the processing of personal data listed in article 5 (1) GDPR. See also Recitals 78 and 81 of the GDPR.

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responsibilization aligns with the so called "risk-based approach" [140], according to which data controllers are required to adopt protective measures commensurate to the level of risk of harm to the rights and freedoms of the data subject arising from the data processing activities in question[141]. The calibration of the responsibilities of controllers on "the nature, scope, context and purposes of processing as well as the risks of varying likelihood and severity for the rights and freedoms of natural persons"[142] implicates the emergence of a differentiated regime of compliance with data protection law, with enhanced transparency and administrative requirements for data controllers involved in high risk processing.

The GDPR offers guidance on risk assessment by detailing the type of risks at stake (falling into the three categories of physical, material and non-material damage)[143] and providing examples of high risks situations[144]. However, it does not dictate what level of

[140] For an overview of the role of risk assessment in data protection and beyond, see Niels van Dijka, Raphaël Gellert, Kjetil Rommetveit, 'A risk to a right? Beyond data protection risk assessments' 32 (2016) 2 Computer Law and Security Review 286.

[141] The GDPR builds the foundations for risk assessment and risk management by charging data controllers with obligations that are dependent on the level of risk of the activity they conduct: for example, those with high level of risk must make prior consultation with the DPA, who may decide to enjoin the conduct (see art. 36 GDPR). They are also required to notify both the DPA and the data subjects of any data breaches that are likely to result in a risk for the rights and freedoms of the individual, unless they have adopted appropriate organizational or subsequent measures to mitigate the risk, or the notification involves disproportionate effort (article 37 GDPR).

[142] Recital 89 and article 24 GDPR.

[143] In particular: "where the processing may give rise to discrimination, identity theft or fraud, financial loss, damage to the reputation, loss of confidentiality of personal data protected by professional secrecy, unauthorised reversal of pseudonymisation, or any other significant economic or social disadvantage; where data subjects might be deprived of their rights and freedoms or prevented from exercising control over their personal data; where personal data are processed which reveal racial or ethnic origin, political opinions, religion or philosophical beliefs, trade union membership, and the processing of genetic data, data concerning health or data concerning sex life or criminal convictions and offences or related security measures; where personal aspects are evaluated, in particular analysing or predicting aspects concerning performance at work, economic situation, health, personal preferences or interests, reliability or behaviour, location or movements, in order to create or use personal profiles; where personal data of vulnerable natural persons, in particular of children, are processed; or where processing involves a large amount of personal data and affects a large number of data subjects". See Recital 75 GDPR.

[144] Namely "systematic and extensive evaluation of personal aspects relating to natural persons which is based on automated processing, including profiling, and on which decisions are based that produce legal effects concerning the individual or similarly significantly affect the individual", "processing on a large scale of special categories of data," and "systematic monitoring of a publicly accessible area on a large scale". See Recital 91 GDPR.

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risks is acceptable, or what measures should be taken by data controllers to prevent or mitigate certain risks. In other words, the standards of risk management remain largely unexplored. One suggestion in that regard is that EU data protection law should adopt a precautionary approach, prohibiting certain operations unless the controller can provide evidence of the innocuousness of the practice in question[145]. While adopting a precautionary approach may be seen as in tension with the force of innovation[146], such an approach would arguably be in line with the text and spirit of the GDPR when it comes to high-risk situations[147]. From this perspective, the role of codes of conduct and certification mechanisms will be crucial in providing data controllers with a minimum degree of legal certainty when undertaking such high-risk processing, by serving as parameters to demonstrate compliance[148].

A third and last possible avenue for data-driven innovation is to rely on the notion of "compatible use" in the further processing of legitimately acquired data. Despite the requirement of it to be "not incompatible" with the purpose(s) of the original processing, this notion leaves some room for creative interpretations. First, the purpose limitation principle has a specific exception for archiving purposes in the public interest, scientific or historical research purposes or statistical purposes, as long as Member States provide appropriate safeguards[149]. Thus, having legitimately acquired the data may be sufficient to allow any scientific or historical research, and even a statistical analysis for business purposes. Second, and equally importantly, article 6 (4) of the GDPR suggests that the assessment of compatibility with the original purpose(s) is rather flexible, where the further processing is not based on the data subject's consent or on a specific Member

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[145] Raphaël Gellert, 'Data protection: a risk regulation? Between the risk management of everything and the precautionary alternative' 5 (2015) 1 International Data Privacy Law, 3, 18.
[146] See for instance Adam Thierer, 'Privacy Law's Precautionary Principle Problem' 66 (2014) 2 Maine Law Review, 467; Tal Zarsky, 'The Privacy–Innovation Conundrum' 19 (2015) 1 Lewis & Clark Law Review, 115.
[147] See Article 29 Working Party, 'Guidelines on Data Protection Impact Assessment (DPIA) and determining whether processing is "likely to result in a high risk" for the purposes of Regulation 2016/679' (WP 248 rev.01, 4 October 2017). See also art 22 GDPR discussed in section 3.3. below, establishing that an additional layer of safeguards applies for automated decisions which significantly affect individuals.
[148] See art. 24 (3) GDPR.
[149] See art. 6 (1) (b) DPD and 5 (1) (b) GDPR; and art. 89 GDPR. In particular, Recital 29 requires that such safeguards "rule out the use of the data in support of measures or decisions regarding any particular individual".

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State law[150]. In particular, the exercise takes into account the following criteria:

(a) any link between the purposes for which the personal data have been collected and the purposes of the intended further processing; (b) the context in which the personal data have been collected, in particular regarding the relationship between data subjects and the controller; (c) "the nature of the personal data, in particular whether special categories of personal data are processed, pursuant to Article 9" (special categories of data), "or whether personal data related to criminal convictions and offences are processed, pursuant to Article 10"; (d) the possible consequences of the intended further processing for data subjects; and (e) the existence of appropriate safeguards, which may include encryption or pseudonymisation.

In practice, this assessment consists of an open-ended balancing, closely resembling the exercise conducted by data controllers to determine whether they have a valid legitimate interest[151]. Those two balancing exercises will thus be conveniently dealt together in the following section.

3.2. A closer look at the two key balancing provisions

So far, we have seen the room available within data protection law to process data for the pursuit of research and development, concluding that the possible avenues are (1) anonymization; (2) research purposes; (3) legitimate interest; and (4) compatible use.

The assessment of (1) typically involves the balancing of factors of technical nature, which will not be discussed here as it falls outside of legal competence. With regard to (2), one may recall that the balancing concerns the purposes of research, on one hand, and appropriate safeguards for the rights and freedoms of the data subject(s) on the other. Importantly, there is significant room for derogations from certain articles of the GDPR as long as this is necessary for the fulfillment of research purposes without serious impairment. This alleviates the burden weighing on the shoulder of researchers, who must in any event adopt appropriate safeguards and respect all principles of data

[150] The specific Member State law must have been designed to attain one of the objectives listed in art. 23 of the GDPR, which include national security, defence, law enforcement purposes (among others).
[151] See art. 6 (1) (f) GDPR and 7 (e) DPD.

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protection, including being grounded on a legitimate legal basis. It will be remembered that processing for research purposes benefits from an exemption to the purpose limitation principle, however, which significantly softens the rigidity of the mechanisms designed around the preservation of the contextual integrity of consent and legitimate interest[152]. As a result, balancing will be required when further uses rely on those legal grounds, although it will be significantly facilitated.

For this reason, and because it is not certain that innovation can always be channeled through a scientific process of research, it is important to examine the process for the establishment of (3) and (4), both of which involve the weighing and balancing of very similar factors. Formal guidance in this area was only recently provided by the A29 WP, through its Opinions 3/2013[153] and 6/2014 [154], and only in part incorporated into the GDPR. The former Opinion, with specific regard to the compatibility assessment of further processing, refers to the following factors:

(a) the relationship between the purposes for which the data have been collected and the purposes of further processing;

(b) the context in which the data have been collected and the reasonable expectations of the data subjects as to their further use;

(c) the nature of the data and the impact of the further processing on the data subjects;

(d) the safeguards applied by the controller to ensure fair processing and to prevent any undue impact on the data subjects.

As is apparent, these factors are slightly different from those subsequently adopted in the aforementioned article 6 (4) of the Regulation[155]: namely, the latter version subsumed the notion of “reasonable expectations” of criterion (b) into the broader concept of the

[152] Contextual integrity is used here to refer to the idea of preventing the breach of the reasonable expectations of the data subject at the moment of collection of personal data. For a more in-depth discussion of the role of contextual integrity in privacy law, see Helen Nissembaum, *Privacy In Context: Technology, Policy, and the Integrity of Social Life* (Stanford University Press 2010).
[153] Article 29 Working Party, Opinion 03/2013 on Purpose Limitation.
[154] Article 29 Working Party, Opinion 06/2014, supra note 131.
[155] See supra, section 3.3.

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"relationship between the data subjects and the controller"; and criterion (c) was divided in two parts, separating the nature of the data being processed from the impact on the data subject –and thereby clarifying that the latter does not necessarily depend (only) from the former). Although no criterion appears dispositive in the overall assessment, it is clearly the last element of the test which distinguishes the assessment from other types of balancing that are found in the law, including in the competition realm, for providing great latitude to data controllers to tilt the balance in favor of compatibility. The A29WP identified a number of safeguards that can be aptly used to that end: first of all, a necessary (but not always sufficient) condition towards ensuring compatibility is to *re-specify* the purposes. An additional notice to the data subjects and giving an opportunity to allow them to opt-in or opt-out is a second type of safeguard that may be required in certain situations[156]. In the extreme, one could also imagine a situation where the balance in the compatibility assessment weighs favor of incompatibility, but the request of a specific separate consent helps to compensate for the further purpose. Finally, the A29WP referred to an additional element which, depending on the situation and thus the type of concern arising from further use, may contribute to rebalancing the assessment in favor of compatibility: the adoption of technical and organizational measures aimed to attain the goals of data security (in particular, availability, integrity, and confidentiality of the data) and data protection (in particular transparency, isolation [157] and intervenability[158]). Although this list is not exhaustive, it provides key benchmarks not only for the self-assessment of data controllers, but also for subsequent measures that can be adopted or imposed to "normalize" a situation of violation of data protection principles.

The test conducted to identify a legitimate interest and balancing it with the interests of the data subject is slightly more elaborated. Once again, the A29WP does not provide exhaustive guidance, rather highlighting its focus on the necessity and proportionality of the interference with the data subjects' rights or interests. On one end of the scale,

[156] See Opinion 03/2013, supra note 153, p. 26.

[157] Isolation refers to the "adequate governance of the rights and roles for accessing personal data". See Article 29 Working Party Opinion 05/12 on Cloud Computing, p. 16.

[158] Intevenability refers to the ability of the data subject to to manage the data in terms of, e.g., access, deletion or correction of data.

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significant weight is attributed to the pursuit of an interest that pertains to a wider community (as opposed to merely the data controller), or which meets "cultural and societal expectations - even when not reflected directly in legislative or regulatory instruments"[159]. On the other end of the scale, the impact on the data subject is considered focusing on the nature of the data processed, the way in which it is being processed (e.g., the scale at which it is made available and whether it is combined with other data), and importantly, the reasonable expectations of the data subject[160]. Reasonable expectations play a pivotal role in determining the risks associated with the unauthorized use or disclosure of data, which explicitly include intangible harms "such as the irritation, fear and distress that may result from a data subject losing control over personal information, or realising that it has been or may be misused or compromised[161]". It is therefore unnecessary to identify a concrete "theory of harm" to invoke the breach of a reasonable expectation preventing reliance on article 6 (1) (f) DPD: in line with the risk-based approach, it will be sufficient to point to the intrinsic risk posed to the rights and interests of the data subject by a certain type of processing. However, at the same time it should be noted that the determination of "reasonable expectations" is specifically linked to "the status of the data controller, the nature of the relationship or the service provided, and the applicable legal or contractual obligations (or other promises made at the time of collection)"[162]. This suggests that the contractual relationship between data controllers and data subjects will be closely observed to determine the bounds of "reasonable expectations", enabling data controllers to contractually shape their ability to rely on legitimate interest, at least to a significant extent[163].

Finally, in line with the analysis conducted for the compatibility assessment of further processing, the overall balance is heavily impacted by the existence of appropriate safeguard measures, which include: increased transparency; privacy by design; privacy impact assessments; extensive use of anonymization techniques; data portability;

[159] Opinion 06/14, supra note 131, p. 35.
[160] *Id.*, p. 24.
[161] *Id.*, p. 37.
[162] *Id.*, p. 40.
[163] It is arguable however that relative factors such as the market power of the data controller and the vulnerability of the data subject could play a significant role in this determination, potentially sufficient to override the expectations created through the contractual agreement.

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unconditional right to opt-out; and technical and organizational measures to ensure that the data cannot be used to take decisions or other actions with respect to individuals ('functional separation'). Data controllers thus find in these exemplary safeguards a range of tools in order to address the data protection risks triggered by a specific type of data processing. Differently from the case of compatible use in further processing, however, such safeguards pertain to the balancing justifying the collection (and processing) of data in the first place, and cannot be introduced at a later stage in the data lifecycle. Risk management will therefore need to be conducted prior to collection, potentially leading a number of businesses to forego or delay innovative products or services to prevent or minimize risks. Once again, the risk management implications of the GDPR are not entirely clear, but the possibility to use adherence to codes of conduct as an indicator of compliance provides an incentive to align with the safeguards provided by those mechanisms.

3.3 A cautionary note: the additional limitations on automated decision-making

In addition to the framework described so far, it is important to bear in mind that data protection (and in particular, article 22 of the GDPR) provides an additional safeguard for human dignity and individual autonomy, which goes beyond the mere collection and use of a data subject's personal data and extends protection to situations where individuals can be impacted by decisions based on fully automated processing, including profiling. "Profiling" is defined in the Regulation as "any form of automated processing of personal data consisting of the use of personal data to evaluate certain personal aspects relating to a natural person, in particular to analyse or predict aspects concerning that natural person's performance at work, economic situation, health, personal preferences, interests, reliability, behaviour, location or movements"[164]. Profiling is here used as an illustration of a situation where a decision may be based on the processing of data relating to one or more persons (those constituting the basis of the profile), yet such data is not sufficient to identify the individual subjected to the decision under the definition of personal data of article 4 of the GDPR.

[164] See article 4, (4) GDPR.

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Without this additional protection, data controllers would be able to take such decisions without having to worry about the GDPR. However, that could undermine individuals' autonomy, which constitutes a fundamental value of EU data protection law[165]. In fact, the rationale for protection can be traced back to the explanatory memorandum of the equivalent provision under the Data Protection Directive (article 15), pointing to a concern that humans maintain the primary role in 'constituting' themselves instead of relying entirely on (possibly erroneous) mechanical determinations based on their "data shadow" [166]. To prevent that situation, EU data protection law prohibits such decisions[167] except under limited circumstances, specifically if (a) they are based on the data subject's explicit consent; (b) they are necessary for entering into a contract or performance thereof, or (c) they are authorised by Union or Member State law to which the controller is subject and which also lays down suitable measures to safeguard the data subject's rights and freedoms and legitimate interests[168]. To complement that, the article specifies that "suitable measures" must be adopted also in the case of (a) and (c), including at a minimum the right of the data subject "to obtain human intervention on the part of the controller, to express his or her point of view and to contest the decision"[169].

Although one could view the right to contest a decision as logically implying the prior right to obtain an explanation for that decision, this additional right contemplated in Recital 71 of the Regulation was not eventually enshrined in article 22 (3), generating some discussion as to whether data controllers are in fact subject to an obligation to

[165] Paul Bernal, *Internet Privacy Rights: Rights to Protect Autonomy* (Cambridge University Press 2014)

[166] Explanatory text for Proposal for a Council Directive concerning the protection of individuals in relation to the processing of personal data, COM (90) 314 final – SYN 287, p. 29. See in this sense Isak Mendoza and Lee A Bygrave, 'The Right not to be Subject to Automated Decisions based on Profiling', in Tatiana-Eleni Synodinou, Philippe Jougleux, Christiana Markou, Thalia Prastitou (eds.), *EU Internet Law: Regulation and Enforcement* (Springer 2017).

[167] Article 22 (1) GDPR. There has been some controversy regarding whether the "right not to be subject to a decision based solely on automated processing" established under this article confer a right to object to any such decisions, or rather amounts to a prohibition for data controllers to engage in such decisions in the first place. However, the Article 29 Working Party has recently settled the debate in favor of the latter interpretation in its Guidelines on Automated individual decision-making and Profiling for the purposes of. Regulation 2016/679, WP 251, Revised and Adopted on 6 February 2018.

[168] Article 22 (2) GDPR.

[169] Article 22 (3) GDPR.

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provide an explanation for their decisions falling into this category[170]. Regardless of the binding nature of this obligation in relation to an individual measure, it must be recognized that the transparency requirements detailing the information and access rights of data subjects (in articles 13-15 of the GDPR) do entail an explanation of the logic involved in any automated decision-making, the significance and the envisaged consequences of such processing for the data subject[171]. This means that EU data protection takes a clear stance on innovation involving decisions based on automated processing, requiring the individual to be adequately informed and put in the condition to meaningfully participate. Although the interpretation of the concepts of "solely automated" and "significantly impact" will constrain the application of this provision, the Article 29 Working Party has favored a broad understanding of the prohibition[172]. This limits to a large extent the scope of permissible innovation by requiring data controllers to trade off efficiency with explainability, contestability and human intervention, and thus potentially preventing several types of unsupervised machine learning techniques that are often put forward as examples of data-driven innovation.

4. Mapping the interactions: could the two policies be united in diversity?

As the previous sections have shown, competition and data protection law vastly differ on the space they assign within their rules to the pursuit of innovation. In particular, competition law is centered around the freedom to conduct business: while on the one hand it imposes general limits to that freedom by outlawing certain conducts, on the other hand it enables undertakings to overcome those limits through two main avenues. First, it identifies specific types of (economic) efficiencies that can be used to outweigh anticompetitive effects, imposing stringent conditions for such trade-offs to occur.

[170] See for instance Sandra Wachter, Bernt Mittelstadt, and Luciano Floridi, 'Why a right to explanation of automated decision-making does not exist in the General Data Protection Regulation', International Data Privacy Law, 7(2):76–99, 2017. Lilian Edwards and Michael Veale, 'Slave to the algorithm? Why a "right to an explanation" is probably not the remedy you are looking for', preprint, ssrn:2972855 (2017); Bygrave, supra note 166.

[171] Andrew Selbst and Julia Powles, 'Meaningful information and the right to explanation', 7 (4) International Data Privacy Law, 233, 2017; Gianclaudio Malgieri and Giovanni Commande', 'Why a Right to Legibility of Automated Decision-Making Exists in the General Data Protection Regulation', International Data Privacy Law, 7 (4) 243–265, 2017.

[172] A29WP, Guidelines WP251, supra note 167.

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Second, it recognizes the possibility for undertakings to adopt reasonable and proportionate measures to protect their own commercial interests, which may include the pursuit of non-economic goals. However, it is important to note that in the case of coordinated conduct, the 'objective justification' line of defence in the pursuit of non-economic objectives is only applicable if the concerned undertakings have been tasked by public authorities with that mandate.

In contrast, data protection law is based on the idea of requiring a justification for the processing of personal data, given their potential impact on the rights and freedoms of data subjects, and to that end imposes the fulfillment of specific conditions upfront. Aside from the option to escape those conditions by using effective anonymization techniques and the possible exemption from certain requirements in case of scientific research activity, data-driven innovation can be accommodated under two different notions: "legitimate interest", which implies no judgment on the type of interest pursued by the controller, so long as that interest is acceptable (i.e., legal) under the applicable law; and "compatible use" for further processing, which requires a link between the purposes for which the data have been collected and the purposes of the intended further processing. Both notions heavily depend on the context, including the nature of the data concerned, the potential impact on the data subject and the reasonable expectations of the data subject. In addition, it is important to bear in mind that data protection law does make a judgment call when it comes to innovations involving decisions based on automated processing which significantly impact individuals, prioritizing explainability, contestability and human intervention over efficiency. More generally, data protection requires any strive for efficiency to take a back seat to individual autonomy. This may limit some kind of innovation, but it permits and indeed promotes responsible and human-centric innovation in accordance with article 8 of the EU Charter.

Furthermore, even if both competition and data protection law rely on some form of balancing for the introduction of innovation, the inquiry has a substantially different focus: in competition law, the balancing test is based on a counterfactual of the competitive process, which refers to the general market conditions in the absence of the conduct. In data protection law, balancing revolves around the fulfillment of the

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reasonable expectations of the data subject, which depend on the individualistic benchmark of his or her relationship with the data controller. While the former test is not able to account for the serendipity that often drives innovation in the big data era, the latter does little to identify and address situations of abuse triggered by market concentration. There are also a number of additional shortcomings under the tests used by competition law to incorporate data-driven innovation (DDI) and data protection innovation (DPI), as explained in the text above and illustrated in Fig. 1 below.

	EFFICIENCY	**OBJECTIVE JUSTIFICATON**
101	**Permitted**: - Improvements in quality, productivity, and dynamic efficiencies. - Public policies framed in competitive terms.	**Permitted**: - Trade-off between interbrand and intrabrand competition; - Necessary and proportionate measures in pursuit of commercial self-interest. - Necessary and proportionate measures in pursuit of legitimate regulatory function.
	Obstacles: - DDI: Determinism. - DPI: quantifiability and measurability; "objective advantage" requirement for cross-market efficiencies	**Obstacles**: - DDI: proportionality (indispensability). - DPI: “entrustment”.

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	(particularly where "advantage" implies the use of personal data for additional purposes). - Both: no elimination of competition.	
102	**Legitimate**: - Improvements in quality, productivity, and dynamic efficiencies. - Public policies framed in competitive terms.	**Legitimate**: - Reasonable and proportionate measure in pursuit of commercial self-interest (to improve price, quality, choice and innovation). - Reasonable and proportionate regulatory interest (provided no clash with competences defined by relevant regulations).
	Obstacles: - DDI: Determinism - DPI: quantifiability and measurability. - Both: no elimination of competition.	**Obstacles**: - DDI: proportionality (indispensability).

Fig. 1: Innovation Defences in Competition Law: Challenges for Data-Driven Innovation and Data Protection Innovation

This list of shortcomings highlights how difficult it can be to escape liability under competition law for what would generally be perceived as welfare-enhancing data practices, that are legitimate under data protection if carried out with the appropriate

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safeguards for data subjects. As corollary of this misalignment between competition defences and data innovation (in both of its manifestations), it is submitted that data innovation justifications may deserve some sort of special consideration, bringing to bear the weight attached by the European Union to the protection of personal data. The notion of "competition on the merits", which emerged as a way to incorporate extra-competition rules into the concept of objective justifications, can in fact provide one trigger for such special consideration. Another mechanism could then be established for the assessment of data innovation as efficiency justification, in order as to overcome the problems of incommensurability and potentially neglect of privacy spillover. A specific form of cooperation could resolve these problems by building on the expertise of the data protection authority to assist the competition decision-maker, as well as take any further action deemed necessary for the pursuit of objectives that are squarely within its own mandate.

Accordingly, it is submitted that a special procedure could be defined for cases where a defendant to a competition proceeding raises a data innovation justification, enablign the authority with the relevant expertise to consider not only the merits of the claim, but also any further action that it deems necessary to prevent negative spillovers on data protection. The framework would need to account for different forms of cooperation between a competition authority (CA) and a data protection authority (DPA), depending on the needs arising from the situation in question. The following Table (Fig. 2) provides a diagram of the possible interactions of privacy (P) and competition (C), whereby "+" indicates a practice whose net effect is to increase the intensity of the value at stake (P or C), "Ø" indicates a practice whose net effect neither increases nor decreases that intensity, and "-" indicates a practice whose net effect is to decrease it.

	P+	**PØ**	**P-**
C+	C+, P+	C+, PØ	C+, P- *Cooperation need:* CA

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			tipping DPA. Consider DP-friendly remedies?
CØ	CØ, P+	CØ, PØ	CØ, P- *Cooperation need:* DPA tipping CA. Request preliminary ruling from CA to DPA on whether DP is infringed.
C-	C -, P+ *Cooperation need*: CA to request DPA's assessment of DP-related defences	C -, PØ *Cooperation need*: DPA tipping CA. Consultation of CA for market definition and market power. Consultation for remedy.	C-, P- *Cooperation need*: Coordination at remedy stage

Fig. 2 : Interactions of Competition and Privacy

Four possible scenarios (those with a shade of gray in the backdrop) should in principle be immune from raising concerns for either a CA or a DPA, much less trigger a tension between the two, and therefore do not call for coordination of their actions. The remaining five scenarios are more complex and raise different kinds of coordination problems, as discussed below.

C-, P+: This is a case where a practice is put in place that improves the privacy, yet affects negatively competition in the relevant market(s). One example is adblocking, a mechanism conceived to promote an ecosystem with less invasive ads and without behavioral tracking, but which can also be abused to deny market access and extract rents

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from websites and advertisers. Imagine a dominant browser vendor[173]committing not to serve any webpage which does not meet a self-proclaimed "Acceptable ads" policy, yet exempting from such policy the ads being served by the websites of its own and its affiliates[174]. The browser vendor could try to justify the exclusion of competitors by raising an efficiency defence, but this would require viewing the improved privacy as a quality that significantly affects competition for users' attention among homogeneous types of websites (i.e. newspapers, social networks, etc.). This is a hard route to follow, not only due to the measurement issues, but also (and most importantly) because it appears that, at the present time, users are generally driven by the content of pages, rather than the associated amount of ads and trackers[175]. The browser company could then claim that the policy constitutes a reasonable commercial step to protect the fundamental right to data protection of its own users, which is endangered by the widespread use of pre-formulated declarations of consent extracted from individuals through standardized Terms of Service. This defence would appear to be valid, to the extent that the ad blocker programme does not impose unreasonable or discriminate conditions for "whitelisting" (i.e., escape the application of the block). What is a competition authority to do in such cases? On the one hand, ignoring the potential benefit brought about by the programme would amount to disregarding the importance of the fundamental rights to privacy and data protection. On the other hand, acritically accepting the claimed efficiency would mean giving a free pass to undertakings using the public policy card, without adequate inquiry into the merits of such defence. For this reason, the most appropriate form of coordination would be to request the competent data protection authority to intervene and assess the legitimacy of innovation defences involving data protection, for example by examining the criteria and procedures established for "whitelising", to ensure they are not

[173] Currently, Chrome could be a good candidate for such position on mobile, where it reaches 40% (See https://www.netmarketshare.com/browser-market-share.aspx?qprid=2&qpcustomd=1).

[174] Such discriminatory behavior was recently found illegal in Germany under unfair competition law, irrespective of the fact that it had been put in place by a non-dominant and non-integrated player. Specifically, Adblocking service provider Adblock Plus engaged in discriminatory treatment *vis a vis* the biggest German publisher Axel Springer. See 'Adblock Plus' business model ruled illegal by German court' (Block Adblock, 26 June 2016) http://blockadblock.com/adblocking/germany-rules-adblock-plus-business-model-is-illegal/ accessed 15 September 2016.

[175] So far, companies branded as offering privacy-preserving services in the space for social networks (Ello) and search engines (DuckDuckGo) have not exerted significant pressure on their competitors.

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being used as a cover for exploitative or exclusionary practices.

C-, PØ: This is a case where the relevant practice is prejudicial to competition, but indifferent for data protection purposes. As explained in section 2.3, the case law has spoken clearly: competition law does not owe deference to other laws, unless those laws already effectively preclude the undertaking from distorting competition. Outside those limited circumstances, there is technically no limit to the ability of competition authorities to enjoin or even mandate a certain data practice on competition grounds; however, at the practical level the range of actions available to the competition authority should be constrained by the limits imposed by the Charter of Fundamental Rights, including not to unduly interfere with the rights to privacy and data protection of the data subjects involved. If, for example, the European Commission were to order Google in the context of its *Google Search* investigation[176] to enable advertisers to use the data of their campaigns with third parties, this would increase the sharing of data concerning identifiable individuals with more parties – which may be problematic from a data protection perspective. In order to avow negative spillovers, it is thus particularly important to have a mechanism for consultation between public authorities before the implementation of any impactful data-related remedy. This ensures that competition remedies do not 'balance out' the essence of the right to data protection for the achievement of economic welfare gains.

At the same time, it is important for data protection authorities to appreciate the competitive implications of their decisions. This is even more delicate where the state of competition in the market contributes to determining the legality of a given practice under data protection law, for example the "significant imbalance" in determining the validity of consent[177] or the market position of the controller claiming the existence of a "legitimate interest" for the processing of specific personal data[178]. For this reason, it should be also possible for the DPA to consult with the relevant competition authority

[176] Case COMP/39470, see the documents available at <http://ec.europa.eu/competition/elojade/isef/case_details.cfm?proc_code=1_39740> accessed 15 September 2016.

[177] See supra note 135-136 and corresponding text.

[178] This assessment is relevant to determining the reasonable expectations of the data subject: see the Article 29 Working Party Opinion 04/14 referred to supra at note 162.

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over the course of an investigation, at the very least in relation to market definition and the measurement of market power.

CØ, P-: This is the opposite scenario, where a given practice is detrimental to privacy, but indifferent from a competition standpoint. That is, firms are not competing on privacy, but intervention of the competition authority could improve the situation of data subjects. Clearly, there is a problem of mandate here, preventing the authority from conducting an investigation or imposing a remedy merely on the basis of data protection considerations[179]. At the same time, failing to give sufficient attention to data protection concerns would be inconsistent with the positive obligations imposed by article 51 of the Charter[180]. For this reason, it is necessary to ensure that the case-team at a competition authority investigating such type of cases can "tip" their colleagues at the data protection authority that they have discovered what they think might be a data protection issue, and transfer the case-file where warranted. On a similar basis, to the extent that lawfulness under data protection law can be considered to justify a particular data practice (for example, on ground of efficiency), competition authorities ought to be able to request a preliminary ruling to the relevant DPA to appropriately gauge the data protection considerations in competition analysis. The mechanism of preliminary ruling can be relatively informal (e.g., not necessarily detailed) but it needs to be under a 'fast-track' procedure, for otherwise the administration of this mechanism could hamper the effectiveness of competition enforcement.

C+, P-: Similar scenario to the one above, where a practice raises privacy concerns and has not only neutral, but even positive effects on competition. An example would be a doctor who decides to utilize the data of his patients, without appropriate consent, to

[179] The only possible theory to justify addressing data protection considerations under those circumstances would be that the company engaged in the practices in question is unfairly taking advantage of the cost saving arising from non-complying with data protection law, thereby putting competitors at disadvantage. It is just worth noting that under this approach competition law could be invoked in multiple cases in which an undertaking does not comply with other laws, for example environmental protection or anti-discrimination law.

[180] According to article 51, "The provisions of this Charter are addressed to the institutions and bodies of the Union with due regard for the principle of subsidiarity and to the Member States only when they are implementing Union law. They shall therefore respect the rights, observe the principles and *promote* the application thereof in accordance with their respective powers" (emphasis added).

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create customized health insurance policies which he then offers to current and former patients. While this type of vertical integration may be efficient, it is also clear that competition authorities cannot simply condone breaches of data protection law for the sake of efficiency- and should thus be able to refer to a DPA any facts which they think raise concerns from a data protection perspective.

C-, P-: Finally, there is a situation where one or more data practices are found to be detrimental not only to data protection, but also to competition. This may occur where the conduct prescribed under the two laws align, and in particular in the two following scenarios. First, most obviously, where there is an overlap of the prohibited conduct in the two legal fields in question: for example, this may happen when both data protection law and competition law require portability[181]of data which constitutes an essential facility, or was being used to eliminate competition in a secondary market. Secondly, where committing a given data protection violation also confers a competitive advantage over other undertakings: this may be simply because it allows the firm to save compliance costs, but it may also be due to the advantages derived from data-driven innovation, for example by enabling the firm to combine data across different sources without the necessary opt-in. In this context, it is of utmost importance that any remedy imposed by the competition authority duly considers data protection, so as not to alter the balance of power between the affected data subjects and the data controller(s) in question. It thus calls for a mechanism of coordination between the two authorities at the remedy stage.

5. Conclusion

This chapter has discussed the role of innovation defences in EU competition analysis, critically reviewing the extent to which they are apt to accommodate the rising phenomenon of data innovation, which can be related to two different concepts: "data-

[181] According to newly established right to data portability, a data subject has under certain circumstances the right "to receive the personal data concerning him or her, which he or she has provided to a controller, in a structured, commonly used and machine-readable format and have the right to transmit those data to another controller without hindrance". See article 20 GDPR.

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driven innovation", where big data is used to improve production or distribution and better match customer preferences; and "data protection innovation", where market value is created through greater protection of data privacy. With regard to both concepts, it was concluded that competition law ought to be modernized by relaxing the stringency of the requirements for the success of those defences, in recognition of the intrinsic difficulties in predicting and quantifying efficiencies of this type. This is likely to be a major problem in the case of data-driven research, which effectively reverses the (deductive) process of scientific discovery by offering hypothesis on the basis of observation of empirical data. On the other hand, when it comes to data protection innovation, the main problem resides in the absence of benchmarks for the assessment of privacy benefits. In particular, the complexity of the analysis transcends the identification and quantification of unmet demand for greater data privacy; it also requires an explanation of the extent to which satisfying such demand outweighs any restriction of competition. In other words, competition law requires innovators to engage in a comparison of apples and oranges, and with particular stringency and exactitude when data innovation constitutes the proffered efficiency justification for coordinated behavior. The objective justification defense appears more likely to succeed for data innovation defenses, especially if raised in the context of unilateral conduct, but requires an examination of the merits of the extra-competition claims.

The need to consider the merits of data protection justifications in competition analysis prompted a second inquiry, relating to the formal mechanisms within EU data protection law to take into account of data-driven efficiencies. This inquiry resulted in the identification of four possible avenues, the first of which (anonymization) reduces the potential of data-driven innovation, while the second (research purposes) depends on the ability to formalize one's activity as "research" and on the adoption of "adequate safeguards" for the rights and interests of data subjects. The two remaining avenues revolve around a multi-factor and context-dependent balancing exercise. It was recognized that this generates a differentiated regime of permission for data-driven innovation, and that co-regulatory mechanisms such as code of conducts and certification represent a valuable tool to enhance legal certainty for data controllers in that regard. Finally, it was noted that article 22 of the GDPR provides a backstop against innovations

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based on certain automated decisions that prioritize efficiency over explainability, contestability and human intervention. That limit and the different focus of the balancing exercise for the assessment of data-driven efficiencies fundamentally distinguish the nature of the innovation formally recognized in EU competition and data protection law. This suggests that the question of whether data protection considerations in competition analysis promote or hinder innovation is simplistic- it all depends on the notion of innovation that we look at. EU data protection law addresses different concerns than competition law; therefore, data protection considerations may on the one hand constrain the breadth of permissible innovation defenses in competition analysis, and on the other hand engender a different kind of innovation, that can be further stimulated through competition in the market.

Having ascertained these differences and reviewed the obstacles to data innovation defenses in competition analysis, the chapter suggested that a special procedure could be established for a coordinated assessment of data innovation defenses in competition law. It then moved on to consider the possible intersections between competition and data protection issues in competition enforcement, identifying a more comprehensive framework for cooperation. On the basis of the nature of the effects (positive, neutral and negative) of a given practice on competition and on privacy, a competition authority can expect to be confronted with data protection considerations in different ways. The mapping presented nine possible scenarios, five of which raise challenges of inter-institutional coordination.

Ultimately, the substantive suggestion provided by this chapter is one of creating a specific mechanism for inter-institutional cooperation for specific cases involving data innovation defenses[182], with a view to enabling competition and data protection agencies

[182] This specific type of cooperation should be distinguished from the more general collaboration taking place in the Digital Clearinghouse, a framework for periodic meetings between contact points of authorities responsible for the regulation of digital services focusing on the following activities: (1) discussing (but not allocating) the most appropriate legal regime for pursuing specific cases or complaints related to services online, especially for cross border cases where there is a possible violation of more than one legal framework, and identifying potential coordinated actions or awareness initiatives at European level which could stop or deter harmful practices; (2) using data protection and consumer protection standards to

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to strengthen –rather than undermine- each other's function. While the contours of this *ad hoc* procedure were sketched alongside the five complex types of interactions identified in this chapter, the framework could incorporate additional considerations to ensure steady and effective cooperation in more specific contingencies. Obviously, the details of the special procedure would need to be formalized in specific rules, including at a minimum a rule that establishes a legal basis for the exchange of information between the relevant authorities. The recent introduction of such rule in Germany through an amendment of the German Competition Act[183] is a welcome step towards effective and coherent enforcement of EU competition and data protection law, but other jurisdictions could define a more elaborated mechanism along the lines sketched above. In an era of big data and artificial intelligence, a regulatory framework failing to ensure coordination of competition and data protection enforcement runs contrary to the duty of EU institutions and Member States not only to respect and observe, but also to *promote* the fundamental rights and principles of EU law[184].

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determine 'theories of harm' relevant to merger control cases and to cases of exploitative abuse as understood by competition law under Article 102 TFEU, with a view to developing guidance similar to what already exists for abusive exclusionary conduct; (3) discussing regulatory solutions for certain markets where personal data is a key input as an efficient alternative to legislation on digital markets which might stifle innovation; (4) assessing the impact on digital rights and interests of the individual of sanctions and remedies which are proposed to resolve specific cases; (5) generally identifying synergies and fostering cooperation between enforcement bodies and their mutual understanding of the applicable legal frameworks. See EDPS Opinion 8/2016 on coherent enforcement of fundamental rights in the age of big data of 23 September 2016, p. 15.

[183] At the time of writing, a bill was pending before the German parliament to amend article 50 of the German competition act ("Gesetz gegen Wettbewerbsbeschränkungen") by extending the ability of competition authorities to exchange information beyond consumer protection agencies, and specifically with the Federal Commissioner for Data Protection and Freedom of Information and the Data Protection Commissioners of the federal states. The German government proposed a specific norm, § 50c (1) (1), for the cooperation of competition agency and data protection agencies as part of the Ninth Comprehensive Amendment of the German Act against Restraints of Competition, available at http://www.bmwi.de/BMWi/Redaktion/PDF/E/entwurf-eines-neunten-gesetzes-zur-aenderung-des-gesetzes-gegen-wettbewerbsbeschraenkungen,property=pdf,bereich=bmwi2012,sprache=de,rwb=true.pdf. The norm, which entered into force in June 2017, provides that it is discretion of the authorities to exchange information that this is necessary for the performance of their respective functions, and use such information in their proceedings, as long as such information is not confidential (either as a business secret or because received by another authority for the application of article 101 or 102 TFEU). I am indebted to Rupprecht Podszun for bringing this amendment to my attention.

[184] See article 51 of the Charter, supra note 100. See also, distinguishing between negative and positive duties of competition authorities to respect and guarantee the effectiveness of data protection rights:

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Francisco Costa-Cabral and Orla Lynskey (2017) 54 *Common Market Law Review* 11, 44-46; Inge Graef, *Data Protection and Online Platforms: Data as Essential Facility* (Wouters Kluwer 2016).

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