

# Data Sharing Regulation in Europe

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**Edited by**  
**Laura Zoboli and Maciej Bernatt**

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## Introduction

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*Maciej Bernatt and Laura Zoboli*

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# Introduction

*Maciej Bernatt and Laura Zoboli*

## 0.1 Context: Data Sharing as a Challenge for the EU Economy

In today's digital age, data has become a crucial asset, often compared to "oil" for its transformative impact on the 21st-century economy.<sup>1</sup> The ability to collect and analyze "Big Data" is essential for businesses seeking to enhance customer experiences, lower production costs and gain a competitive edge. The rapid growth of online platforms and the proliferation of Internet of Things (IoT) devices, which gather extensive data through embedded sensors, underscore the increasing importance of data.<sup>2</sup> This data is pivotal for training Artificial Intelligence (AI) algorithms, which in turn improve decision-making and operational efficiency.<sup>3</sup>

For the European Union (EU), enabling effective data sharing goes beyond regulatory compliance; it is a strategic necessity vital for driving innovation and economic advancement. Data sharing holds significant promise for augmenting data value, stimulating economic activity and lowering entry barriers for emerging market players. Developing efficient data-sharing mechanisms is crucial for realizing the full potential of data and fostering innovation.

The value of Business-to-Business (B2B) data sharing is profound. When companies exchange data, they unlock new avenues for value creation rather than merely exchanging information. The European Political Strategy Centre (EPSC) highlights that the benefits derived from data can differ greatly between the data provider and the data user.<sup>4</sup> A dataset held by one organization may not be fully

1 Shannon Tellis, 'Data is the 21st Century's Oil, says Siemens CEO Joe Kaeser' (*The Economics Times*, 24 May 2018) <https://economictimes.indiatimes.com/magazines/panache/data-is-the-21st-century-oil-says-siemens-ceo-joe-kaeser/articleshow/64298125.cms?from=mdr> last accessed 25 January 2024.

2 McKinsey, 'Internet of Things: Catching Up to an Accelerating Opportunity' (*McKinsey Digital*, 1 June 2015) <https://www.mckinsey.com/~media/mckinsey/business%20functions/mckinsey%20digital/our%20insights/iot%20value%20set%20to%20accelerate%20through%202030%20where%20and%20how%20to%20capture%20it/the-internet-of-things-catching-up-to-an-accelerating-opportunity-final.pdf> last accessed 25 January 2024.

3 Ajay Agrawal, Joshua Gans and Avi Goldfarb, *Prediction Machines: The Simple Economics of Artificial Intelligence* (Harvard Business Review, 2018).

4 EPSC Strategic Notes, *Enter the Data Economy, EU Policies for a Thriving Data Ecosystem* (Issue 21, 2017) 5–7.

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utilized, while another organization could repurpose this data to generate substantial new insights and innovations.<sup>5</sup> This ability to create additional value from existing data illustrates a core feature of the data economy. Moreover, businesses can further benefit by monetizing data that has already been fully leveraged within their operations.<sup>6</sup>

The impact of data sharing extends beyond the immediate stakeholders to the broader economy. Effective B2B data sharing can spur innovation across industries, create new business models and lower barriers for start-ups. These start-ups, which often excel in data analysis but lack resources to acquire large datasets, can gain significantly from shared data.<sup>7</sup> Companies seeking data can engage in various activities, including collaborations, data purchases through marketplaces or accessing data from public and private sources. Data Service Providers, such as data marketplaces and industrial data spaces, play a critical role in facilitating these transactions within a controlled environment. These intermediaries function similarly to social media platforms and online marketplaces, shaping the data market ecosystem.

Despite the growing importance of data, the EU's data economy lags behind the United States market. Research indicates that improving data access could boost firm competitiveness and economic growth. For example, the OECD estimates that data sharing might contribute to GDP growth of 0.1% to 1.5% from public sector data and 1% to 2.5% from private sector data.<sup>8</sup> Yet, many firms remain hesitant to share data, with large portions of industrial data going unused. The EU Commission's 2020 Data Strategy highlights these issues, noting that while data sharing is prevalent in high-tech, utilities and financial sectors, it remains limited in public agencies, pharmaceuticals and healthcare.<sup>9</sup>

Key challenges to effective data sharing include interoperability issues, regulatory barriers and security concerns.<sup>10</sup> Additionally, the lack of a robust data market creates incentive problems: firms often struggle to assess the value of their data,

5 D Daniel Sokol and Roisin Comerford, 'Does Antitrust Have a Role to Play in Regulating Big Data?' in Roger D Blair and D Daniel Sokol (eds), *Cambridge Handbook of Antitrust, Intellectual Property and High Tech* (Cambridge University Press 2017) 6–7.

6 Francesco Mezzanotte, 'Access to Data: The Role of Consent and the Licensing Scheme' in Sebastian Lohsse, Reiner Schulze and Dirk Staudenmayer (eds), *Trading Data in the Digital Economy: Legal Concepts and Tools* (Hart/Nomos 2017) 160.

7 European Commission Communication, *Towards a common European data space* (COM/2018/232 final) 9–10; Terrell McSweeney and Brian O'Dea, *Data, Innovation, and Potential Competition in Digital Markets – Looking Beyond Short-Term Price Effects in Merger Analysis* (CPI Antitrust Chronicle, vol 2, 2018) 7.

8 OECD, 'Enhancing Access to and Sharing of Data: Reconciling Risks and Benefits for Data Re-Use across Societies' (2019) 59–64. The text of the report is available at: [https://www.oecd.org/en/publications/enhancing-access-to-and-sharing-of-data\\_276aaca8-en.html](https://www.oecd.org/en/publications/enhancing-access-to-and-sharing-of-data_276aaca8-en.html) last accessed 25 January 2024.

9 European Commission Communication, *A European strategy for data* (COM/2020/66 final) 6.

10 Richard Feasey and Alexandre de Stree, 'Data Sharing for Digital Markets' Contestability: Towards a Governance Framework' (CERRE Report, 2020) 15 <https://cerre.eu/publications/data-sharing-digital-markets-competition-governance> last accessed 25 January 2024.

leading to either open access without compensation or a reluctance to share.<sup>11</sup> To address this “data-sharing paradox”, the EU has introduced a new legal framework designed to tackle these issues. This framework comprises two main components: the development of Common European Data Spaces to address technical, privacy and security challenges and a suite of cross-sector legislative proposals.<sup>12</sup>

These legislative proposals include the Data Act (DA),<sup>13</sup> the Open Data Directive (ODD),<sup>14</sup> the Data Governance Act (DGA),<sup>15</sup> and the Digital Markets Act (DMA).<sup>16</sup> Together, they aim to enhance data sharing across various sectors, provide legal clarity and address specific market failures and public interest concerns. The framework covers B2B, Government-to-Business (G2B) and Business-to-Government (B2G).

In summary, navigating the complexities and opportunities presented by data-sharing regulations is crucial for the EU’s economic strategy. By implementing a robust and cohesive regulatory framework, the EU has the potential to fully harness its data economy and drive innovation throughout the digital landscape.

## 0.2 Approach and Methodology

Navigating the regulatory landscape for data sharing within the EU reveals a complex interplay of legal frameworks that shape and constrain data-sharing practices. This book aims to deepen understanding of how existing regulations influence data sharing and highlights areas ripe for improvement. By critically assessing and comparing the current legal environment, it seeks to provide valuable insights for policymakers, businesses and academics, ultimately contributing to a more effective and innovative data economy across Europe.

The challenge of creating a regulatory environment that both promotes data sharing and upholds individual rights, fosters competition and respects IP protections

11 Deloitte, *Study on Emerging Issues of Data Ownership, Interoperability, (Re-)Usability and Access to Data and Liability* (European Commission, 2018) 56. <https://op.europa.eu/en/publication-detail/-/publication/74cca30c-4833-11e8-be1d-01aa75ed71a1/language-en> last accessed 25 January 2024.

12 European Commission, *Staff Working Document on Common European Data Spaces* (SWD/2022/45 final). <https://digital-strategy.ec.europa.eu/en/library/staff-working-document-data-spaces> last accessed 25 January 2024.

For further information concerning the development of the Common European Data Spaces initiative see <http://dataspaces.info/common-european-data-spaces/> last accessed 25 January 2024.

13 Regulation (EU) 2023/2854 of the European Parliament and of the Council of 13 December 2023 on harmonized rules on fair access to and use of data and amending Regulation (EU) 2017/2394 and Directive (EU) 2020/1828 (Data Act) [2023] OJ L 2023/2854.

14 Directive (EU) 2019/1024 of the European Parliament and of the Council of 20 June 2019, on open data and the re-use of public sector information [2019] OJ L172/56.

15 Regulation (EU) 2022/868 of the European Parliament and of the Council of 30 May 2022 on European data governance and amending Regulation (EU) 2018/1724 (Data Governance Act) [2022] OJ L152/1.

16 Regulation (EU) 2022/1925 of the European Parliament and of the Council of 14 September 2022 on contestable and fair markets in the digital sector, amending Directives (EU) 2019/1937 and (EU) 2020/1828 (Digital Markets Act) [2022] OJ L265/1.

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is intricate and multifaceted. Therefore, it is crucial to reflect on how to harmonize these frameworks to support a balanced and forward-thinking data economy.

The EU's legislative efforts, including the Data Act, the Open Data Directive, the Data Governance Act, the Digital Services Act and the Digital Markets Act, underscore the commitment to advancing data sharing while fostering an environment conducive to innovation. These regulations aim to tackle issues related to data access, interoperability and fairness, striving to build a robust and inclusive digital market across Europe. However, significant gaps persist, especially in B2B data sharing.

This book intends to highlight how B2B data sharing, despite its potential to drive innovation and create value, is hindered by considerable legal limitations and obstacles that affect business competitiveness and innovation. More specifically, the analysis carried out in the book underscores the need for focused attention and strategic interventions to unlock the full potential of data-driven collaboration among businesses. While current regulations have a significant added value, they often lack coherence and fail to fully address the complexities of B2B data sharing. Moreover, the interplay between competition law, IP law and data protection law presents both limitations and opportunities. IP laws, while safeguarding innovation, can restrict data flow. Competition law, aimed at preventing anti-competitive practices, can sometimes obstruct collaborative data-sharing efforts. Data protection laws prioritize privacy and security but may create barriers to data access. Balancing these interests is essential for developing a coherent data-sharing regime that encourages innovation while respecting legal and ethical boundaries.

A further and significant challenge is the need for greater coherence among the EU's new data-sharing regulations. Although the regulatory framework is robust, the overlapping and occasionally conflicting nature of these laws can create uncertainty and impede effective implementation. This book offers insights into how these regulations can be better integrated to facilitate data sharing, particularly among private entities.

Against this backdrop, the development of Common European Data Spaces presents a promising solution to harmonize these frameworks, addressing technical, privacy and security barriers. Data spaces could effectively balance regulatory frameworks by providing structured environments that align with fundamental interests and rights while promoting data sharing. They aim to enhance data flow within specific strategic sectors by establishing common interoperability standards and sectoral governance rules. Continued support for the development of these data spaces, through EU funding and regulatory guidance, could help overcome existing barriers and improve data-sharing practices.

The original idea behind the book relates to a significant gap in the literature regarding comprehensive analyses of B2B data-sharing policies within the EU. Existing studies often focus on isolated aspects of data regulation or examine the theoretical implications of data sharing without addressing the practical realities and interactions of regulatory frameworks. There is a need for a holistic assessment that explores the systemic challenges, regulatory shortcomings and potential solutions for optimizing B2B data sharing.

This need has been tackled within the research project “Business-to-Business Data Sharing within the EU Digital Market”, financed by the Polish National Science Centre (Opus, 2018/31/B/HS5/01192) and pursued within the Centre for Antitrust and Regulatory Studies, part of the Faculty of Management at the University of Warsaw, Poland (hereinafter the “Research project”).<sup>17</sup> This book is the outcome of the Research project.

As EU regulators, policymakers and scholars confront the evolving landscape of data sharing, there is indeed a pressing need for a cohesive and thorough understanding of the associated barriers and incentives. This book is designed to fill in this gap by offering an in-depth analysis of data-sharing initiatives within the EU. It investigates the regulatory frameworks that influence these initiatives, emphasizing the principle of technological neutrality. This principle advocates for regulations that focus on the desired outcomes rather than the specific technologies involved, thereby promoting a more adaptable and forward-looking legal framework.

In light of the above, the overarching aim of this book is to assess the impact of EU policies on data sharing and to explore how these policies can be optimized to foster innovation and competition. By adopting a holistic approach, this book seeks to clarify the interplay between general EU regulations, data protection laws, intellectual property law and competition law. In other words, the book integrates the perspectives of general EU data regulation, data protection, competition law and intellectual property. It uses this multi-disciplinary approach to address the complex interactions between different legal frameworks and to propose solutions that promote effective data sharing in the EU. The book combines rigorous legal analysis with interdisciplinary approaches. Each chapter draws upon a wide range of sources, including primary legal texts, policy documents and reports, case-law and scholarly literature.

### 0.3 Book Structure and Its Key Themes

This book is structured to provide a comprehensive and cohesive exploration of data sharing within the European Union. Recognizing the complexity of the subject, the book is divided into two main parts, each addressing critical aspects of data sharing from foundational regulatory frameworks to their interactions with competition and intellectual property concerns. The aim is to offer a holistic view that reflects the various layers of data-sharing regulation studies within the mentioned Research project, while ensuring a seamless flow through the research process.

More specifically, the structure of the book reflects an integrative approach, designed to guide the reader through the multifaceted nature of data-sharing

<sup>17</sup> More information about the project and the project’s open access research reports are available here: <https://cars.wz.uw.edu.pl/en/research-and-expertise/research-projects/583-9-research-project-business-to-business-data-sharing-within-the-eu-digital-market-2019-2021-financed-by-the-polish-national-science-centre-opus-grant-2018-31-b-hs5-01192.html>. The editors are grateful to all those involved in the Research project, in particular to Joanna Mazur, Maria Lilla Montagnani, Monika Woźniak-Cichuta and Marcin Zieliński as well as to Maciej Janik and Monika Gac.

regulations. The two-part division mirrors the systematic progression of the Research project: starting with the fundamental concepts and regulations in Part I and moving towards the specific interactions with competition and intellectual property in Part II.

This sequential approach ensures that the reader builds a solid understanding of the regulatory landscape before delving into more specialized topics. By addressing foundational regulatory frameworks first, the book sets the stage for a nuanced discussion of how these frameworks intersect with and impact competition and intellectual property rights.

The book closes with “Part III: Conclusions” which contains Chapter 7, focusing on the interplay of data protection, competition law, IP law and data sharing.

### **0.4 Part I: Categorization of Data and Regulation of Data**

Part I of the book lays the groundwork for understanding data sharing by categorizing different types of data and analyzing the regulatory frameworks that govern their sharing. This section is crucial for establishing a comprehensive background, which informs the subsequent analysis of competition and intellectual property concerns.

#### ***0.4.1 Types of Data and Stakeholders in Data Sharing (Chapter 1)***

Chapter 1 provides a thorough examination of data categories, and the diverse stakeholders involved in data sharing, with a primary focus on business-to-business (B2B) contexts. This chapter explains key concepts that underpin the Research project’s exploration of the regulatory frameworks impacting data sharing within the EU. It addresses several critical aspects, including:

#### **Nature of Data:**

- **Non-Rivalrous and Multifunctional:** data stands out as a non-rivalrous resource, meaning it can be utilized by multiple entities simultaneously for various purposes, often generating new data in the process. This multifunctional and dynamic nature of data differentiates it from most natural resources and underscores the necessity of broad access and incentivized sharing. Such characteristics are essential for maximizing social welfare and enhancing the EU data economy.

#### **Data Categories:**

- **Blurring Boundaries:** traditional distinctions between personal, non-personal, private and public data are increasingly overlapping. The highest value from data often arises from combining datasets from diverse sources to develop new data-oriented products and services. This fluidity highlights the evolving nature of data and the need for adaptable regulatory frameworks.

**Data in Practice:**

- **Practical Applications:** in practical applications, such as in a smart city, data integration across sectors like telecommunications, transportation and healthcare can significantly enhance public services and operational efficiencies. For instance, improved data sharing could revolutionize areas like traffic management, urban planning and public health, leading to more effective and responsive service delivery.

**Transition of Data Categories:**

- **Dynamic Nature:** data's categorization is not static. Processes like anonymization can transform personal data into non-personal data, and private data may become public, reflecting the versatile nature and broad applications of data. This aspect emphasizes the need for flexible approaches to data regulation.

**Stakeholder Roles:**

- **Business-to-Business (B2B):** involves data exchange between commercial entities, fostering collaboration, innovation and value creation within and across industries;
- **Business-to-Government (B2G):** entails the provision of data from private sector entities to government bodies for purposes such as regulatory compliance, public service delivery and policy formulation;
- **Government-to-Government (G2G):** concerns data sharing between different governmental bodies, which facilitates interagency coordination, information sharing and decision-making;
- **Government-to-Business (G2B):** refers to the dissemination of public sector data to private entities, aimed at driving innovation, fostering transparency and supporting economic growth.

In conclusion, Chapter 1 lays the essential groundwork for understanding data-sharing dynamics by outlining the diverse types of data and the roles of various stakeholders. This foundational knowledge is critical for comprehending the regulatory frameworks and broader implications of data sharing discussed in subsequent chapters. The insights provided here set the stage for a deeper exploration of how data is regulated, protected and leveraged across different sectors and contexts.

**0.4.2 General and Sectoral Regulations Impacting Data Sharing (Chapter 2)**

Chapter 2 addresses the complex interaction between various EU legal frameworks that regulate data access, transfer and sharing. As the EU introduces a slew of new regulations, the legal landscape governing data sharing has become increasingly intricate, with overlapping rules across different sectors. This chapter examines these regulations, highlights areas of overlap and inconsistency and explores how

these complexities impact legal certainty and coherence. In doing so, Chapter 2 provides the reader with a unique systematization of the EU regulations affecting data sharing and sets the stage for understanding the fragmented nature of these regulations and their implications for businesses navigating multiple legal systems. In particular, Chapter 2 addresses:

### **EU General Regulations:**

- **Data Act (DA):** it delves into the Data Act, which aims to standardize data access and sharing across various sectors. It examines how the Act establishes general principles for data handling and its interaction with other regulations;
- **Digital Markets Act (DMA):** the DMA's focus on regulating digital gatekeepers and ensuring fair competition is analyzed, particularly how it influences data-sharing practices;
- **Digital Services Act (DSA):** the DSA's impact on data sharing is reviewed, especially in terms of content moderation and platform responsibilities;
- **Open Data Directive (ODD):** this directive's role in promoting transparency and access to public sector data is discussed, highlighting its implications for data sharing;
- **Data Governance Act (DGA):** the DGA's provisions for data access and data-sharing services are examined. This section also considers the Act's approach to facilitating data sharing and establishing data intermediaries.

### **EU Sectoral Regulations:**

- **Data Spaces:** the chapter explores the European Commission's Data Spaces initiative, which aims to create sector-specific data-sharing frameworks;
- **Health Data Space:** analysis of regulations governing the sharing of health data, focusing on privacy, security and access issues;
- **Directive on Payment Services II (PSD2):** this section covers data-sharing requirements within the financial sector, including implications for payment services;
- **Vehicle Data for Independent Repair Shops:** the regulation concerning vehicle data and its impact on independent repair shops is examined. A reflection on emerging regulations for in-vehicle data sharing and their implications for industry stakeholders is also made;
- **Other Sectoral Legal Systems:** review of additional sector-specific regulations mandating data sharing, highlighting variations and commonalities.

In conclusion, Chapter 2 consolidates the key findings from the analysis of both general and special sectoral regulations. It provides an overview of the regulatory landscape and identifies areas where overlaps and inconsistencies arise. The chapter concludes by advocating for the introduction of a unified set of rules for data access and transfer. It argues that a general regulatory framework could mitigate the challenges posed by disparate and overlapping regulations, thereby enhancing legal certainty and coherence across the EU.

### 0.4.3 Personal Data Protection and Its Influence on Data Sharing (Chapter 3)

Chapter 3 delves into how personal data protection laws, especially the General Data Protection Regulation (GDPR), shape the regulatory framework for data sharing. In an era where the economic value of data is widely recognized, this chapter emphasizes the critical importance of data protection. It explores how GDPR principles, including consent, transparency and data subject rights, impact data-sharing practices. Additionally, it addresses the ongoing challenges and tensions between safeguarding personal data and facilitating data flows. In doing so, the chapter opens with a discussion on the significance of data protection amidst the growing economic reliance on data. Despite heightened awareness and calls for reform, major tech companies often continue practices that raise concerns about data protection. This sets the stage for a closer examination of the boundaries established by data protection laws for data sharing. In particular, Chapter 3 systematically addresses several critical aspects, including:

#### Data Protection Framework:

- **General Data Protection Regulation (GDPR):** the GDPR serves as the focal point of the analysis, detailing its influence on data-sharing practices. The chapter reviews key GDPR provisions and relevant decisions from national data protection authorities (DPAs);
- **International and Regional Laws:** the chapter briefly references other significant legal instruments, such as the European Convention on Human Rights (ECHR) and Convention 108+, as well as regional trade agreements that include data protection provisions.

#### Data Categorization and Processing:

- **Types of Data:** the chapter clarifies the scope of GDPR by discussing categories such as personal data, pseudonymization and anonymization. It also examines special categories of data, including sensitive data and data related to minors, highlighting how these classifications affect data protection rules;
- **Purpose of Processing:** the chapter specifically addresses the importance of processing purposes under GDPR and how the lawful basis for processing impacts data sharing. It explores how specific purposes can dictate the permissibility of data use and sharing.

#### Principles of Data Processing:

- **Core Principles:** the chapter delves into GDPR's core principles – such as data minimization, accuracy and accountability – and their implications for data sharing. These principles set limits on what is permissible in terms of data processing and sharing;

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- **Data Subject Rights:** the chapter examines the rights of data subjects, including access, rectification and erasure, and how these rights influence data-sharing practices. The chapter highlights how compliance with these rights can complicate data-sharing arrangements.

### **Data Transfers:**

- **International Data Transfers:** the chapter discusses the mechanisms and restrictions on transferring personal data outside the EU, including the role of adequacy decisions, Standard Contractual Clauses (SCCs) and Binding Corporate Rules (BCRs). It explores how these regulations ensure that data protection standards are maintained across borders.

### **Balancing Data Protection and Data Flow:**

- **Facilitating Data Movement:** the chapter considers the GDPR's dual objective of protecting personal data while enabling data flow. It reviews provisions like data portability, which aim to support data movement within the EU while upholding strong protection standards;
- **Regulatory Tensions:** the chapter discusses the tension between robust data protection and the need for free data flows, proposing strategies for balancing these priorities.

In conclusion, Chapter 3 provides a detailed exploration of how GDPR and related data protection laws influence data sharing and offers guidance on evaluating GDPR provisions when planning data-sharing operations. In doing so, it assesses the significance of various GDPR requirements for both data protection and the free movement of personal data, suggesting ways to navigate these rules effectively.

#### ***0.4.4 Compensation Mechanisms for Data Sharing (Chapter 4)***

Chapter 4 investigates the mechanisms through which stakeholders are compensated for data sharing, focusing on various compensation models such as financial remuneration and alternative forms of value exchange. It assesses how these mechanisms affect stakeholders' willingness to share data and the overall efficacy of data-sharing initiatives. The chapter addresses the prevalent issue of insufficient incentives for data sharing and explores the new EU regulatory framework designed to tackle these challenges. As a premise of the analysis, the chapter outlines the paradox of data sharing in the modern economy. Despite the increasing value of data, obstacles like lack of interoperability, regulatory barriers and security concerns hinder data sharing. The primary issue is the incentive problem: firms struggle to evaluate the value of their datasets, leading them to either avoid sharing data or to adopt open-access approaches without compensation. Against this backdrop, Chapter 4 examines the essential components needed to complement general data regulations with respect to private-sector compensation for data sharing. In particular, Chapter 4 addresses:

### **Need for Compensation:**

- **Incentivizing Data Sharing:** the chapter emphasizes that compensation is essential to motivate data sharing. Without compensation, data holders lack the incentive to share their datasets, resulting in fewer data-sharing agreements and missed opportunities for data-driven innovation.

### **Data Sharing Business Models:**

- **Business-to-Business (B2B) Models:** the chapter explores various B2B data-sharing models, including financial transactions and non-monetary exchanges of value. It examines how these models influence the willingness of businesses to share their data;
- **Government-to-Business (G2B) and Business-to-Government (B2G) Models:** the chapter also discusses G2B and B2G models, highlighting how data sharing is incentivized through mechanisms like data prizes, civic data sharing and data philanthropy. These models often focus on public interest rather than direct economic gain.

### **Benefits of Data Sharing:**

- **Economic and Strategic Advantages:** the chapter outlines the benefits of data sharing, such as enhanced innovation, improved decision-making and increased efficiency. It underscores how effective compensation mechanisms can amplify these benefits by encouraging more stakeholders to participate in data-sharing initiatives.

### **Obstacles to Data Sharing:**

- **Technical Barriers:** the chapter discusses technical challenges, including interoperability issues and data integration difficulties, that impede data sharing;
- **Market Failures:** it explores the market failures affecting data sharing, such as the lack of a functioning market for data valuation;
- **Lack of Trust:** the chapter highlights how trust issues between data holders and data users can obstruct data-sharing efforts.

### **EU Regulatory Framework on Compensation:**

- **Overview of EU Legislation:** the chapter provides an in-depth analysis of the EU's new regulatory framework designed to address data-sharing compensation. It reviews key legislative acts already framed in Chapters 2 and 3 and in particular:
  - **Open Data Directive (ODD):** this directive aims to promote data sharing between public authorities and the private sector;

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- **Data Governance Act (DGA):** introduces a governance framework to encourage both G2B and B2B data sharing;
- **Data Act (DA):** recent legislation that mandates B2B data sharing and addresses data sharing during public emergencies (B2G);
- **Digital Markets Act (DMA):** mandates data-sharing obligations for digital gatekeepers and includes sector-specific rules for industries like chemicals, banking and automotive;
- **General Data Protection Regulation (GDPR):** the right to data portability under GDPR is discussed as part of the EU data-sharing framework, facilitating B2B transactions.
- **Compensation Rules:** the chapter examines how the EU framework provides general rules on compensation, allowing parties to negotiate compensation based on data quality and value. It assesses whether these rules create a consistent legal framework or leave too much flexibility for individual agreements.

In conclusion, Chapter 4 offers a thorough examination of compensation mechanisms for data sharing, delving into the challenges and regulatory responses within the EU context. It evaluates various business models, assesses the benefits and obstacles associated with data sharing and reviews the newly established legislative framework. The chapter illuminates how to effectively incentivize data sharing and tackle the paradox of high data value versus reluctance to share. By providing critical insights, it aims to assist stakeholders and policymakers in enhancing data-sharing practices and overcoming existing barriers. In its conclusion, the chapter evaluates the effectiveness of the EU data-sharing acquis, focusing on the impact of compensation mechanisms. It assesses whether the new regulatory framework has effectively resolved incentive issues and offers recommendations for further improvements.

### **0.5 Part II: Competition, Intellectual Property and the Balance of the Regulatory Frameworks**

Part II shifts the focus to the competition and intellectual property dimensions of data sharing, analyzing how data sharing intersects with antitrust concerns and intellectual property rights. This section explores the balance between promoting competition and protecting intellectual property, providing insights into the broader implications for data sharing.

#### ***0.5.1 Competitive Impacts of Data Sharing and Antitrust Response (Chapter 5)***

Chapter 5 investigates the impact of data sharing on market competition and the antitrust responses necessary to address these effects. It explores how data sharing can influence competitive dynamics, both positively and negatively, and examines the role of competition law in regulating such practices. The chapter provides a thorough analysis of situations where data sharing may undermine competition and discusses how antitrust authorities can balance these concerns with the benefits of

data sharing. More specifically, Chapter 5 underscores the dual nature of data sharing, which can either enhance or hinder competition depending on the context. In particular, Chapter 5 addresses:

**Data Sharing and Collusion:**

- **Facilitating Cartels:** the chapter examines how data sharing among competitors can facilitate collusion by reducing uncertainty and enabling firms to sustain anti-competitive practices such as price fixing. It highlights the need for antitrust interventions to prevent such harmful effects.

**Exploitation through Data Sharing:**

- **Unilateral Exploitation:** the chapter explores scenarios where unilateral data sharing allows a firm to exploit its competitors. It discusses how access to data can be used to harm rivals, creating an imbalance in the competitive landscape.

**Refusal to Share Data:**

- **Competitive Disadvantage:** the chapter assesses the impact of data refusal by dominant firms or groups of firms. It considers how such refusal can disadvantage competitors and whether it constitutes an antitrust violation.

**Intersection with Data Protection Laws:**

- **Balancing Competition and Privacy:** the chapter also addresses the interaction between competition law and data protection regulations, such as the GDPR. It examines how the need to protect personal data intersects with competition concerns, especially when data-sharing practices involve personal information.

In conclusion, Chapter 5 evaluates the current antitrust frameworks' effectiveness in addressing the challenges posed by data sharing. It emphasizes that while data sharing can offer significant competitive benefits, it also poses risks that need to be managed through appropriate regulatory measures. Chapter 5 recommends that competition authorities adopt a nuanced approach, carefully assessing the competitive impacts of data sharing and intervening only when necessary to prevent anti-competitive practices. Additionally, it highlights the importance of integrating competition law with data protection regulations to ensure a balanced and fair market environment.

**0.5.2 Intellectual Property Rights and Data-Sharing Obligations (Chapter 6)**

Chapter 6 explores the intricate relationship between intellectual property (IP) rights and data-sharing obligations, focusing on how IP laws influence data-sharing

practices. As data becomes a critical asset in the digital age, the chapter examines how IP rights like patents, copyrights and trade secrets intersect with data sharing, assessing whether these rights facilitate or obstruct data access and sharing. It highlights the evolving EU regulatory framework and its impact on balancing IP protection with the need for data flow, offering insights into the ongoing shifts in data-sharing policies. In particular, Chapter 6 addresses:

**Data and IP Relationship:**

- **Patents and Data:** the chapter examines how patents interact with data, stating that data itself, as an output of a patented process, usually does not qualify for patent protection due to its descriptive nature and lack of originality;
- **Copyright and Data:** the chapter explores the role of copyright in protecting data, particularly how copyright laws impact the accessibility and sharing of data. While databases can receive protection if they show intellectual creation, raw data often lacks the required originality. The EU Directive 96/9/EC provides a two-tier system, offering copyright protection for original databases and *a sui generis* right for those with significant investment but lacking originality. This protection focuses on the structure of databases rather than their contents;
- **Trade Secrets and Data:** the chapter assesses how trade secrets laws protect proprietary data and the implications for data sharing. While trade secret protection is relevant, it is complex due to the often non-secret nature of data and the challenge of maintaining secrecy. The focus on trade secrets in the Data Governance Act (DGA) and the Data Act (DA) reflects the ongoing need to balance secrecy with data-sharing obligations;
- **The Data Producer's Right:** this part reviews the failed attempt to establish a semi-property right on data, known as the data producer's right, and its implications for data sharing.

**Paradigmatic Shift in the EU Approach:**

- **DGA and Data Sharing:** the chapter discusses the Data Governance Act (DGA), which promotes data sharing while considering IP rights protection. It introduces mechanisms for data intermediaries and common data spaces to facilitate data flow while respecting IP rights;
- **DA and Data Flow:** the Data Act (DA) is examined for its role in enabling data access and flow, particularly how it interacts with existing IP rights. It focuses on reducing barriers to data sharing while maintaining IP protection;
- **Role of Data Intermediaries:** data intermediaries and common data spaces are explored as tools to support data sharing and flow. The chapter assesses how these mechanisms work within the EU regulatory framework to balance IP protection with the need for accessible data.

**Change in EU Approach:** the chapter also considers the shift in the EU’s approach from reinforcing IP rights to encouraging data access and flow. It reflects on how the DGA and DA illustrate this change and assesses the current role of IP rights in the EU regulatory framework for data sharing.

In conclusion, Chapter 6 highlights the complex interplay between IP rights and data-sharing obligations, illustrating how IP laws can both support and hinder data sharing. The analysis reveals a significant shift in EU policies from emphasizing IP protection to encouraging data flow, as seen in the Data Governance Act and the Data Act. This evolving regulatory landscape aims to reconcile the need for data accessibility with the protection of IP rights, ultimately fostering a more dynamic and inclusive data economy. In general terms, Chapter 6 underscores the importance of this balance in advancing data-driven innovation while respecting intellectual property considerations.

## 0.6 Part III: Conclusions

### 0.6.1 Balancing Data Protection, Competition Law and Intellectual Property and the Coherence of EU Data Law (Chapter 7)

Chapter 7 is the conclusive chapter that delves into the complex relationships between data protection, competition law and IP rights, analyzing how these legal frameworks can be harmonized with pro-data-sharing regulation to promote the advancement of the EU data economy. In doing so, the chapter explores the challenges and opportunities presented by these regulatory areas and proposes strategies for balancing innovation, competition and privacy while facilitating data sharing. In particular, Chapter 7 assesses:

#### Limitations Imposed by IP, Competition and Data Protection Laws:

- **IP Perspective:** IP laws, which safeguard proprietary information and incentivize innovation through exclusivity, can restrict the free flow of data. These laws present challenges to data-sharing efforts by prioritizing the protection of IP over the sharing of data. Additionally, the absence of copyright and patent protections specifically for data limits the ability to enforce and strengthen the position of data holders, thereby complicating data sharing;
- **Competition Law Perspective:** Competition law, designed to prevent anti-competitive practices, can inadvertently hinder data-sharing initiatives. The application of Article 101 TFEU (which addresses anti-competitive agreements) may complicate data sharing between firms. Furthermore, competition law can restrict data sharing if it leads to potential violations of Article 102 TFEU, which addresses the abuse of market dominance. For instance, a dominant firm may face antitrust scrutiny if it pressures its business customers or individual consumers to share their data;

- **Data Protection Perspective:** data protection laws, particularly GDPR, prioritize the privacy and security of individuals' data. These laws ensure that data subjects maintain control over their information but can also impose significant restrictions on how data can be shared and utilized, affecting collaborative data-sharing initiatives.

#### **Fostering Data Sharing Through Regulatory Frameworks:**

- **IP Laws:** despite their restrictive nature, IP laws can facilitate data sharing through mechanisms such as licensing agreements. These agreements allow controlled data sharing while protecting intellectual property rights. Additionally, IP protection on data can in specific cases extend to trade secrets, and, under certain conditions, to copyright and *sui generis* rights on databases, providing residual protection that can support data-sharing initiatives;
- **Competition Law:** competition law can promote data sharing by ensuring that market practices do not suppress collaborative efforts. Article 101(3) TFEU provides potential exemptions for certain data pooling, standardization or research and development agreements. Furthermore, merger scrutiny under competition law can prevent excessive data concentration, encouraging a more balanced and competitive data-sharing environment;
- **Data Protection Laws:** data protection laws can facilitate data sharing through secure data-sharing mechanisms and frameworks. Compliance with GDPR and other data protection regulations can be achieved by implementing robust privacy safeguards and data-sharing protocols.

#### **Coherence of EU Data-Sharing Acquis:**

- The chapter examines the coherence of the EU's data-sharing regulations, which are often complex and overlapping. While new regulations are designed to enhance data sharing, their integration and practical application remain challenging. The chapter emphasizes the need for a more coherent regulatory framework to provide legal certainty and effectively stimulate data sharing.

#### **Data Spaces as a Harmonizing Solution:**

- Data spaces are presented as a potential solution to balance horizontal and vertical regulatory frameworks. These spaces aim to create structured environments for data sharing while aligning with fundamental rights and interests. By establishing common standards and governance rules, data spaces could overcome existing barriers and promote data-driven innovation in strategic sectors.

In conclusion, Chapter 7 provides a comprehensive analysis of how data protection, competition law and intellectual property rights interact and influence data-sharing practices and regulations. It identifies critical gaps in the regulatory framework and proposes strategies for creating a more balanced and coherent approach to data sharing. The chapter highlights the importance of aligning regulatory frameworks to support data-driven innovation while safeguarding privacy, promoting competition and respecting IP protections. The development of Common European Data Spaces represents a promising approach to harmonizing these frameworks and addressing the challenges faced by businesses in the digital age.

In summary, this book contributes to the discourse on data governance by advocating for a more integrated and coherent regulatory approach. It offers valuable insights and strategies for enhancing data sharing while ensuring that competition, innovation and privacy are maintained. By addressing the complexities of the current regulatory framework and proposing actionable solutions, this work aims to support a more effective and innovative data economy in Europe. Moving forward, fostering collaboration and aligning regulatory frameworks will be crucial for unlocking the full potential of data-driven innovation and shaping the future of the digital economy.



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