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## Getting to data nirvana

A legal and compliance guide to data value creation

Chapter 1 — Understanding data value and ownership

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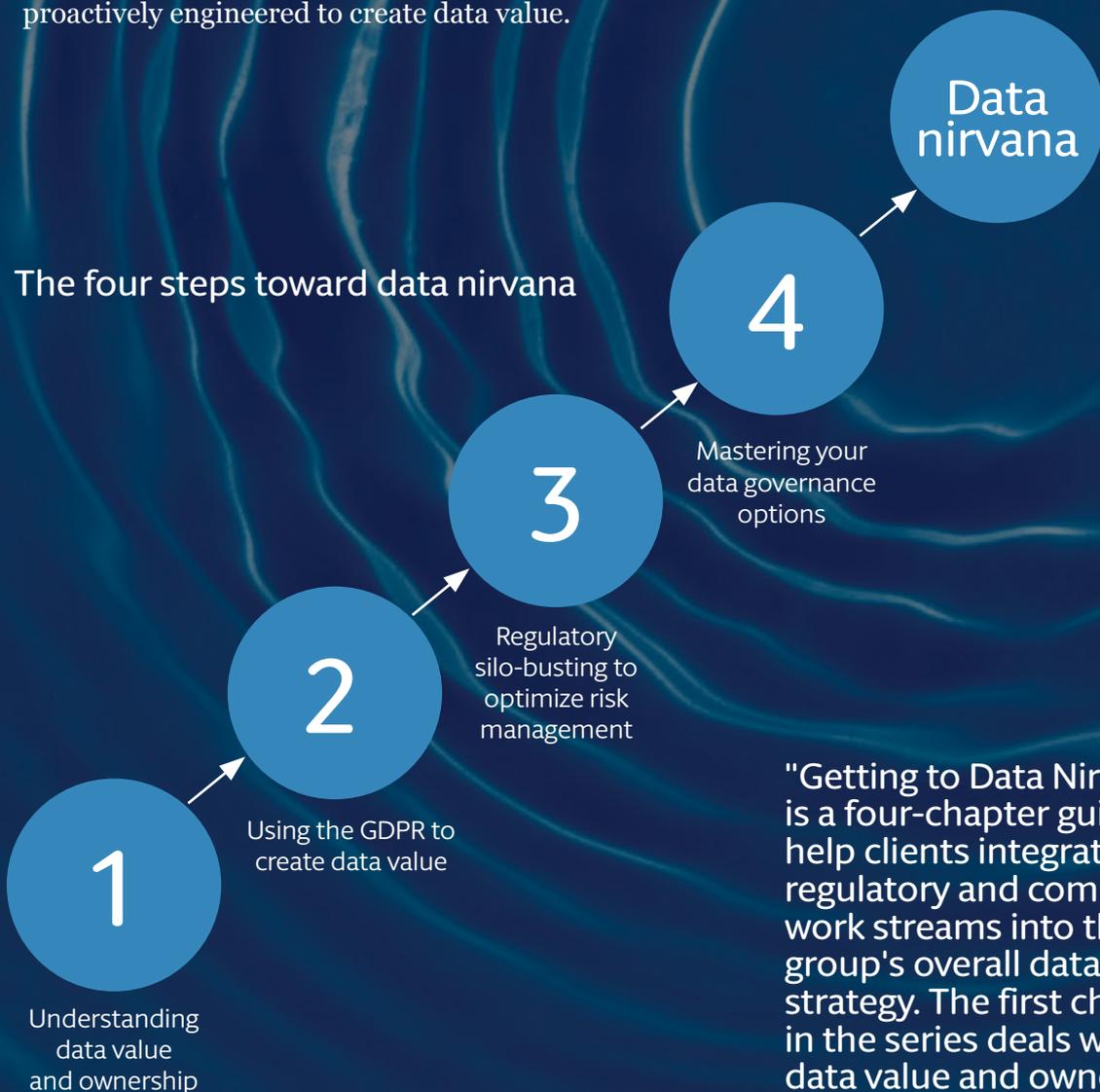


# Introduction

The job of legal and compliance teams is to make sure that their company's data projects don't violate applicable laws. Their task is not easy because laws regulating the processing of data – particularly data that is personal – are multiplying worldwide. However, a focus solely on data compliance can prevent broader thinking about data strategy, and how legal and regulatory teams can contribute to value creation.

Hogan Lovells' "Getting to data nirvana" guide helps open the door to broader thinking about data strategy, by showing how regulatory, contract, IP, competition and litigation strategy can be proactively engineered to create data value.

## The four steps toward data nirvana



"Getting to Data Nirvana" is a four-chapter guide to help clients integrate legal, regulatory and compliance work streams into the group's overall data strategy. The first chapter in the series deals with data value and ownership

# Chapter 1 — Understanding data value and ownership

## 1. Data value for dummies, including lawyers

The first step toward data nirvana is to understand how an economist would characterize the value of a data project for the enterprise. The net value of a data project, such as creation of a data lake, will be equal to the total potential benefits associated with the project, **minus** the costs of implementing the project and the costs created by regulatory constraints. The benefits less costs must be positive, otherwise the project is not worth doing.

Let us consider the creation of a data lake for a financial services firm. The project will generate two kinds of potential benefits:

- i. cost savings through economies of scale, such as the ability to conduct risk analysis and regulatory reporting using a single platform instead of many different platforms;
- ii. potential new revenue streams linked to innovative customer-centric Fintech offerings. Potential new data revenues for the financial services sector could reach \$300 billion annually, according to PWC.<sup>1</sup>

The three kinds of costs associated with the data lake will be:

- i. the set-up and operating costs.
- ii. the reduction in benefits (opportunity costs) caused by regulatory constraints.
- iii. the risk of potential fines for regulatory non-compliance. Fines under the GDPR can reach 4% of global annual turnover.

Regulation generally appears on the cost side of the equation, by reducing data uses compared to what would otherwise be possible in the absence of regulation.

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As an example of the power of data lakes, and analysis of unstructured data such as e-mails or voice calls linked to customer transactions can help identify fraudulent trading activity.

*Rash Gandhi et al., "Look Before You Leap Into the Data Lake", BCGperspectives, 2016.*

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Regulatory constraints will limit an organization's ability to freely use data in the way originally hoped, thereby reducing the size of the total pie of benefits available. For example, if total benefits expected from new data uses (without regulation) is 10, the GDPR may reduce the scope of uses to a value of 6, thereby creating a cost of 4 for the project. Obviously if smart GDPR planning can increase the data use value from 6 to 7, the planning has created a benefit of 1 for the project. Regulatory work has suddenly created a "plus" instead of a "minus" in the net data value equation.

Where the potential value of new data uses reaches hundreds of millions of dollars, a small change in regulatory constraints can have a large impact on the value in absolute terms. For a data project expected to generate potential benefits of €100 million per year, a small reduction in regulatory constraints can easily create value exceeding €1 million per year.

Regulatory constraints come in different shapes and sizes. A large data project will involve multiple constraints, including contract law, consumer protection law, data protection law, competition law, sector specific regulations, tax and transfer pricing regulations, and regulations for fighting crime. Each body of regulation is complex; each is dealt with by specialists operating in regulatory silos. Because regulatory constraints are the domain of specialists, large data projects will often be analyzed by a series of specialists who will provide their answers based on their own risk-benefit analysis. This is the standard way law firms and internal legal teams approach complex compliance problems.

This silo-based approach does not deliver optimal outcomes. Better outcomes result when the silo-based approach is supplemented by a multi-disciplinary data governance structure which is able to make holistic risk-benefit judgments that cut across silos. A group of specialists talking across silos will reach better outcomes than the same group of specialists giving isolated responses from their own silo-based perspective.

By talking across silos, regulatory specialists can reach compromise solutions that increase data value.

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The GDPR restricts aggregation and trade in personal data and thereby puts constraints on the potential benefits from economies of scope in data aggregation.

*Nestor Duch-Brown et al., "The economics of ownership, access and trade in digital data", JRC Digital Economy Working Paper 2017-01, p. 17.*

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## 2. Data ownership — does such a thing exist?

### 2.1 Technical control over data

Data value is pretty straightforward; data ownership is less so. The reason is that data value is a purely economic concept whereas data ownership involves legal concepts such as property rights. For some legal scholars, you can't own something unless a property right attaches to it. For others, a property right is not a precondition to ownership. Ownership is linked to the simple fact of lawful possession and use.

In many data contracts, parties will use the term "ownership" as shorthand to designate the party that has the right to grant access to the data and/or decide what uses can be made of the data. This is remarkably similar to the concept of "data controller" as defined in the GDPR and other data protection legislation. The data controller is the party that determines the purposes and means of processing. The data controller is the gatekeeper, the permission-giver. The controller is equivalent to the data owner in the contract.

### 2.2 Intellectual property rights

Raw data is not protected by copyright, or other intellectual property rights. That would go against the basic principles of copyright, which is to protect the expression of ideas and not the ideas or information themselves. However, this does not mean that an enterprise cannot have de facto control over the data, i.e. the ability to prevent others from having access.<sup>2</sup>

Raw data are similar to football matches. In many countries, no intellectual property rights protect sporting events as such. Yet there is huge value in the broadcast rights of sporting events because the organizer of the match, the Premier League for example, can restrict or permit third parties to have access to a match in order to film it. Companies that control data benefit from the similar right. They have a gatekeeper function that they can use to grant access to others through contract. Markets for data seem to function correctly through contract. The most common example is the sale of a business's customer list as part of the sale of an ongoing business. The customer list has significant value and market transactions routinely occur without the need for a specific property right.

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The data holder itself will regularly be able to exclude others from access through technical means, including technical protection measures. Rules of criminal law that make unauthorised access to data a crime, such as data or computer espionage, can further strengthen factual exclusivity without recognition of ownership in the sense of private law.

*Josef Drexler, "Designing Competitive Markets for Industrial Data – Between Propertisation and Access*

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The absence of a specific intellectual property right for data does not appear to inhibit investment in data collection either. There being no market failure, either with regard to investment to collect data or with regard to trading in data, a study done for the European Commission concluded that there is no need to create a specific intellectual property right.<sup>3</sup>

Laws on trade secrets and unfair competition already protect companies against unlawful access to their data. The theft of a company's customer list would be sanctioned as a violation of trade secrets, as unfair competition, as unlawful computer hacking and maybe even theft. In Europe the sui generis database right allows a database maker to prevent a third party from using data reproduced from a database (including publicly available data), although there are limits to this right and it only protects the database maker's investment in compiling pre-existing data and not any investment in the creation of data.

Consequently, the sui generis database right often does not protect bulk data involved in big data projects.

### 2.3 Ownership of personal data

The question of whether personal data can be "owned" is controversial. Certain kinds of personal data are intimately linked to a person's being. Talking about ownership of personal data can be like talking about ownership of a part of a human body. It raises grave ethical concerns. The European Commission avoided this ethical debate by concentrating its recent investigations into the ownership of non-personal data. Vaclav Janecek (2017) from Oxford University studied the ownership of data and concluded that personal data should be divided into two categories: personal data that is so intrinsically tied to a person's being that it cannot be owned by anyone, and other personal data that is routinely traded as an asset.<sup>4</sup>

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Exclusive control of such data would be analogical to slave-holding or human trafficking which is ethically problematic. Any claim on these data would equal the Shylock's claim to cut off and take a pound of flesh from Antonio's body in return for his debt and that is not only ethically unacceptable but, in the light of fundamental human rights, also illegal.

*Vaclav Janecek, "Ownership of Personal Data in the Internet of Things"*

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With regard to the first category, Janecek points out that some data is so personal that it is inconceivable that a third party could have the right to possess and control the data, let alone exclude others. A person's DNA sequence would be an example of the kind of personal data that is equivalent to "a pound of flesh" in Shakespeare's "The Merchant of Venice".

However, other kinds of personal data, for example a person's IP address, or navigation habits on the Internet, are routinely used in commerce and do not raise the same ethical considerations. Recital 13 of the proposed Digital Content Directive recognizes this reality, by acknowledging that many contracts for digital goods and services are paid in kind, through use of personal data:

*"In the digital economy, information about individuals is often and increasingly seen by market participants as having a value comparable to money. Digital content is often supplied not in exchange for a price but against counter-performance other than money i.e. by giving access to personal data or other data."*<sup>5</sup>

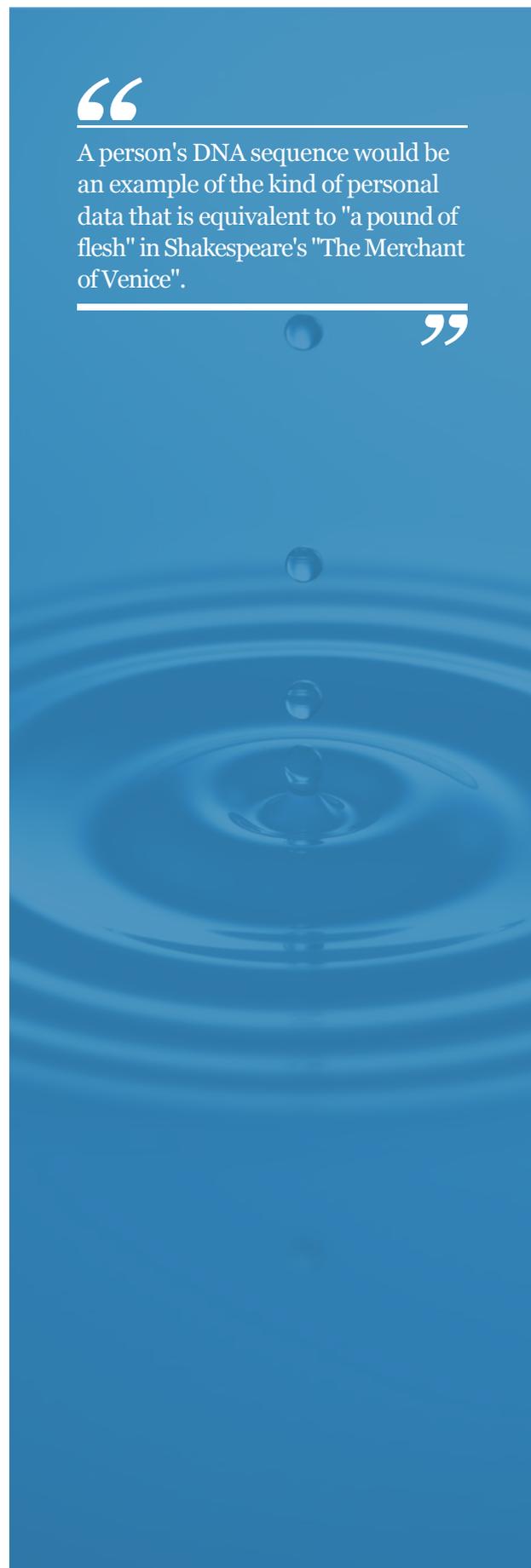
Whether we use the word "ownership" or not, personal data falling into this second category can be considered an asset, with "value comparable to money."<sup>6</sup> The value of this asset is linked to the various rights and restrictions that affect a company's use of the data. In functional terms, ownership in data is not a property right per se, but a bundle of rights and restrictions that affect how a company which legitimately holds the data can make use of it.

One of the key restrictions to a company's use of data is linked to contract.

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A person's DNA sequence would be an example of the kind of personal data that is equivalent to "a pound of flesh" in Shakespeare's "The Merchant of Venice".

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Commercial data sharing agreements, whether inbound or outbound, will have considerable impact on a company's bundle of use rights.

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## 2.4 Contractual rights

In addition to technical control over data access, a company's ownership rights will depend on contracts, including contracts with the original source of the data (potentially a consumer) and contracts with vendors and other intermediaries who are involved in data collection or transformation and who may have competing claims to the same data. The GDPR requires that a company's uses of personal data have a legal basis, and one of the bases may be contract. Moreover, each privacy policy must explicitly describe the processing that the company may undertake, and any violation of that policy could constitute a violation of a consumer contract in addition to a violation of data protection law.

As regards contracts with third parties, companies have considerable freedom in imposing conditions on a third party's use of data. In its decision in *Ryanair vs. PR Aviation*, the CJEU found that the provision in Ryanair's terms of use prohibiting third parties from extracting data from its website for commercial use was valid, and that Ryanair's contractual terms did not have to comply with the conditions set forth in Directive 96/9 because the database was not protected by the *sui generis* database right.<sup>7</sup> Commercial data sharing agreements, whether inbound or outbound, will have considerable impact on a company's bundle of use rights. As pointed out in Chapter 2, many companies are systematically modifying their contracts to ensure compliance with the GDPR. Companies focused on data value are using this contract modification process in order to examine, and if possible augment, the company's ownership position in data.

## 2.5 Regulatory constraints

The bundle of rights representing a company's ownership in data will also be affected by regulatory constraints, particularly those that confer inalienable rights to others. As pointed out by the European Commission's Joint Research Center,<sup>8</sup> the GDPR grants specific rights to data subject rights, and those rights reduce the bundle of rights held by the data controller.

Data subjects benefit from specific rights, including the right to oppose many forms of processing of personal data by the data controller. But the data controller holds the residual rights, i.e. all the rights that remain after subtracting the specific rights of the data subject. By recognizing that the data controller holds the right to determine the purposes and means of processing, the GDPR provides a degree of legal certainty to the controller's ownership status. The data controller has the right to use the data, and to grant access to others. The controller is the gatekeeper, although his gatekeeping function cannot be exercised in a way that conflicts with his duties to the data subject.

Data protection law is not the only regulatory constraint that can affect the bundle of rights we call ownership. Competition law may in some cases force entities to share data.<sup>9</sup> Specific regulations may also compel data sharing. An example in the payments industry is PSD2, an acronym for a European payments services directive that requires banks to share data with competitive service providers.<sup>10</sup> In the automobile industry, data sharing with independent garages<sup>11</sup> is obligatory, and may soon become obligatory with intelligent transport infrastructure.<sup>12</sup>

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The granting of specific rights to data subject implies that any remaining residual rights not included in the specific rights in the GDPR accrue to the data controller. In the economic literature on property rights, residual rights are defined as the rights that remain unspecific after specific rights have been assigned to other parties. These residual rights are called property rights.... In that sense, the GDPR de facto (but not de jure) assigns property rights on personal data to the data collector, however limited they may be due to his fiduciary role.

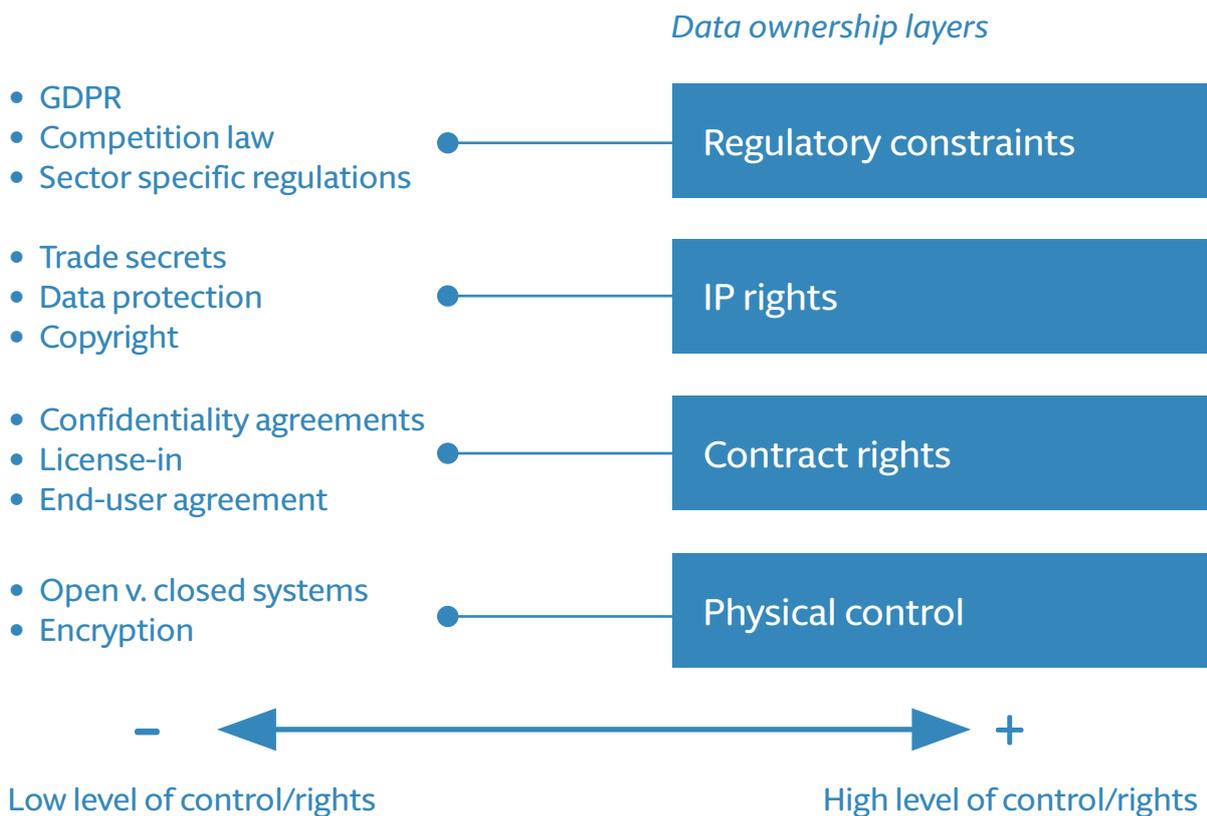
*Nestor Duch-Brown, Bertin Martens and Frank Mueller-Langer, 2017*

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## 2.6 The data ownership bundle

Using this functional "bundle of rights" approach, data ownership can be thought of as the sum of different rights and constraints. The starting point is the technical protection measures that permit de facto control over data. In the absence of a specific intellectual property right, de facto control over data is the essential starting point for any ownership right. The next layer in the bundle consists of the contractual environment, which may increase the rights of the company, where the contract reinforces a company's ownership right, or decrease the rights, where a contract imposes restrictions.

The last layer in the ownership bundle consists of the regulatory constraints, which generally limit the exercise of the rights held by the company.



Once this ownership framework is understood, ownership in data can be enhanced through a combination of contract strategy and smart regulatory planning.

**Formula 1: The data ownership equation**

$$\begin{array}{c}
 \text{Technical control (owner)} \\
 + \\
 \text{contractual rights (owner)} \\
 - \\
 \text{contractual rights (third parties)} \\
 - \\
 \text{regulatory constraints} \\
 = \\
 \text{residual ownership rights}
 \end{array}$$

Data "owners" will have some control over the first, second and third variables of the equation. Technical control can be ensured through encryption, the equivalent of putting data in an electronic safe. Access to the contents of the safe can then be arranged by contracts which given certain third parties a key to unlock the safe. Contractual rights can be influenced through smart negotiation and contractual amendments.

The fourth variable, regulatory constraints, will be more difficult to influence -- but not impossible. As we will explain in Chapter 3 on regulatory silo-busting, regulatory constraints are not immovable objects. They are more akin to planets in motion, which follow a

trajectory and interact with each other. Getting regulatory experts out of their respective silos can help understand these interactions, and even influence the trajectory of regulation.

A multi-disciplinary governance structure for data can help keep the big picture of data value and data ownership in mind, and make sure that each stakeholder in the company, including legal and compliance teams, contribute to maximizing the ownership bundle.

## References

1. PwC Strategy&, "The Data Gold Rush", 2013.
2. Josef Drexler, "Designing Competitive Markets for Industrial Data – Between Propertisation and Access," Max Planck Institute for Innovation and Competition Research Paper No. 16-13.
3. Nestor Duch-Brown, Bertin Martens and Frank Mueller-Langer, "The economics of ownership, access and trade in digital data," JRC Digital Economy Working Paper 2017-01.
4. Vaclav Janecek, "Ownership of Personal Data in the Internet of Things", Working Paper, Dec 1, 2017 <https://ssrn.com/abstract=3111047>
5. Recital 13, European Commission Proposal for a Directive of the European Parliament and of the Council on certain aspects concerning contracts for the supply of digital content, COM(2015) 634 final.
6. Id.
7. CJEU, Ryanair Ltd v PR Aviation BV, Case C-30/14, January 15, 2015.
8. Nestor Duch-Brown, Bertin Martens and Frank Mueller-Langer, "The economics of ownership, access and trade in digital data," JRC Digital Economy Working Paper 2017-01.
9. CJEU, IMS Health GmbH & Co. OHG and NDC Health GmbH & Co. KG, Case C-418/01, April 29, 2004.
10. Directive (EU) 2015/2366 . on payment services in the internal market.
11. For light-duty vehicles, sharing obligations for repair and maintenance information were introduced by Regulation (EC) No 715/2007 (Euro 5/6) and its implementing Regulations 692/2008 and 566/2011.
12. Directive 2010/40/EU on the framework for the deployment of Intelligent Transport Systems in the field of road transport and for interfaces with other modes of transport.

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