Brussels, 4 February 2020

Orgalim Position Paper
Towards a Common European Data Space for Smart Manufacturing

EXECUTIVE SUMMARY

Orgalim shares the European Commission's objective to focus on a new EU data strategy. We believe that such a strategy should support the further strengthening of a Common European Data Space for smart manufacturing. This will require an ecosystem that enables data sharing and fosters data access in a safe and secure environment. To achieve such a vision, we call on policymakers to take into account the following foundational elements of a framework:

- Contracts in B2B are crucial **and freedom of contract needs to be a foundational aspect** of any European Data Space. Orgalim is, for example, working on drafting examples of contractual clauses that can be used by companies, including SMEs. This will facilitate data sharing, whereas mandatory opening-up of private sector data could hinder innovation and investment.

- In a B2B context, **liability** issues related to data can be addressed by contracts that are freely negotiated by the two parties. Therefore, we ask policymakers to **refrain from any specific legislation on data liability,** respecting the companies' freedom of contract.

- Companies need **legal certainty and a trusted market environment** to share, transfer and access data to enable them to innovate in new data-driven business models. To that end, **trade secrets and intellectual property rights of companies need to be protected.**
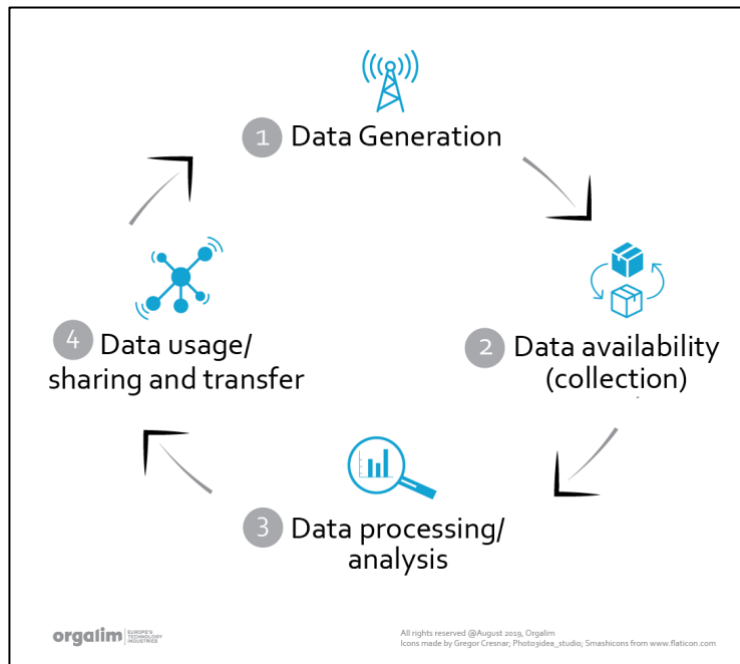
With this position paper, we want to shape the drafting of such an EU data strategy by outlining: 1) some of the crucial benefits of industrial data for Europe's industry; 2) the role of data platforms; 3) a range of policy recommendations.

A. Introduction – why industrial data is important to our industries

Europe's technology industries see the transition to a data-driven economy as essential for their future growth and competitiveness, as well as inevitable. Our companies are developing and providing sensor-equipped machinery, data-based services, smart production systems and intelligent products. Industrial data and its exchange have become part of commercial practice for our industries. Data flows make it possible to increase manufacturing productivity and tap into new efficiency gains, whilst simultaneously enabling new data-driven services and business models.

The visual below illustrates how data flows and is used to add value in our industries.

The number of connected devices is predicted to rise to 25 billion by 2021[1] and our industry will make up an ever-greater share of this. The potential value of machine-generated data in the EU in 2027 is estimated at €1,500 billion[2].

The overall benefits of machine-generated data in the manufacturing sector can be focused around three dimensions:

a.   **Improving productivity and efficiency.** The use and re-use of data leads to better decision-making and resource-allocation. It provides the possibility of improving existing products and can help to ensure more efficient processes. For example, manufacturing techniques that monitor the equipment's condition, such as predictive maintenance, are already reducing downtimes by detecting and preventing malfunctions by analysing the machine parameters. Data analytics enable the shortening and speeding up of logistics chains by reducing the frequency, duration and impact that disruptive events can create.

b.   **Supporting innovation.** Creating emerging new products and services and enabling improved product quality will support innovation in the EU. Data-sharing will enable the creation of new innovative businesses, such as B2B data platforms. This, in turn, will enhance the digitalisation of the European industrial base, making it more competitive at the global level.

c.   **Societal benefits**. Sharing of such data between companies reduces costs, improves product quality, and gives more choice to consumers. Data sharing will also enable a more

---

[1] Source of data: Gartner
https://www.gartner.com/en/newsroom/press-releases/2018-11-07-gartner-identifies-top-10-strategic-iot-technologies-and-trends (link available in January 2020).
[2] Source of data: Vodafone study https://www.vodafone.com/content/dam/vodcom/files/public-policy/Realising_the_potential_of_IoT_data_report_for_Vodafone.pdf (link available in January 2020).

SHAPING A FUTURE THAT'S GOOD

sustainable process of production and consumption to pursue the UN Sustainable Development Goal 12 ("ensure sustainable consumption and production patterns" [3]).

Examples on mobility:
Fleet management systems are widely used in transportation to improve efficiency and minimise risks. By using IoT technology, each machine is connected to the central cloud database, which provides real-time monitoring and performance analysis. This makes it possible to check the battery consumption and production status of each machine. This, in turn, makes fleet operations more efficient and reduces waste.

A company deploys high-speed trains. With predictive maintenance, on-board sensors collect real-time data on how well critical train components are performing. This makes it easier to detect malfunctions and delays, and in turn improves both reliability and punctuality rates.

Example on renewable energy: *Wind parks group together turbines in the same location to produce electricity in a more sustainable way. By analysing performance data from each windmill, the performance of each wing can be optimised and analysed together with actual weather forecasting. By using AI algorithms and analysing data, the energy consumption of wind parks can be reduced by 1-3%.*

Example on machine-to- machine communication: *The collection and exchange of data between different machines is needed in order to optimise building processes. For this to happen, data first needs to be collected and stored, then compared to real-time data in order to predict the consequences for the machine and for process drift. Once aggregated, data can be used to optimise processes.*

Example on predictive maintenance: *Data related to the functioning of the machines may indicate when (preventative) maintenance or repair intervention is needed. In addition, the localisation data of machines can accelerate maintenance when a repair or maintenance intervention is needed – for example when mobile machines need to be fixed, or when supply chain transportation and logistics information is needed to monitor an industrial fleet.*

Example on optimisation of manufacturing processes: *Compressed air is an essential part of many manufacturing processes, and air compressors and rooms need to be monitored by technicians to ensure functionality and minimise malfunctions. By connecting all their air compressors to central hubs across the globe, companies can ensure 24/7 data monitoring via web dashboards. With predictive maintenance, an alert is sent to both the supplier and the client when compressors are inefficient or close to malfunctioning.*

Example on sustainability: *Smart grids are also a good example of using machine-generated data to deliver positive effects for society. Data coming from smart grids can be used to gain useful insights, detect anomalies, and align the supply and demand of energy, creating tangible benefits for both the environment and consumers.*

In light of these many benefits, Europe's technology industries understand that tapping into the potential of sharing industrial data could contribute greatly to their businesses. The incentives to do so must be right, and the tangible benefits of data sharing must be visible and be better understood, both in monetary and other terms.

We believe that the use and sharing of data will increase the ability of Europe's industrial base to continue producing cutting-edge technologies. It will also allow Europe to become an even stronger competitive location for new data-based business models.

---

[3] See the UN Sustainable Development Goal 12 here: https://sustainabledevelopment.un.org/sdg12

We believe that industrial data platforms can play a crucial role in this regard as they could strengthen the trust in the ecosystem.

B. Industrial data platforms – enabling trust

We strongly believe that **trust in sharing data should be a core focus to unlock the full potential of the industrial data economy**. Trust has many components. It is about organisations' need to trust partners in the value chain, so that they can share their data in a safe and secure manner and that interoperability barriers are reduced.

To achieve this, there is the need to create a data-friendly ecosystem for sharing data between and within complex value chains. The basis for doing so should be by freely negotiated B2B contracts.

Industrial data platforms increasingly play a crucial role, specifically in creating trust among data users and data suppliers. By creating virtual spaces, these platforms provide an environment where players from different complex value chains meet, allowing them to safely share their data in confidence, exchange information securely, and work together[4].

The willingness of industry to share data on a voluntary basis could be further encouraged by platforms and data spaces offering data management models that ensure that data is shared in a fair manner, aligned with the business interest of all the stakeholders involved. In particular, SMEs need to trust their commercial partners in order to share their data with them. Industrial data could create economies of scale, especially for SMEs, enabling them to better cooperate.

It is also important to note that the platform ecosystem in B2B is developing differently from that in B2C and hence requires different approaches.

These platforms are also key in enabling data interoperability (for instance, via common standards such as reference models). This way, platforms are likely to provide businesses with more incentives to further invest in innovative data-driven business models, significantly boosting Europe's data economy in the long-term. Through data interoperability, we can make data portability possible between companies. This fulfils an important pre-condition for the smooth functioning of the Digital Single Market.

Orgalim believes that policymakers can support this process by raising awareness, encouraging the debate, the sharing of best practices and providing orientations, for instance through R&I initiatives.

Such efforts could accelerate the development of independent industrial data platforms and encourage more data sharing, particularly in B2B relationships. To that end, policymakers should take a cautious approach to legislation, as this could interfere with the market developments, and ultimately hinder the uptake of innovative data-driven business models. This must especially be taken into account given the rapid development of the industrial data platform ecosystem, and its potential to be competitive globally.

To achieve the Common European Data Space for smart manufacturing, we call for a flexible policy approach. However, it is important to recognise that there is no 'one size fits all' solution. We will need to work on an overall policy approach, built through dialogue with all relevant stakeholders.

---

[4] An example of an approach for B2B platform solution is the Fraunhofer institute "industrial data space" https://www.fraunhofer.de/content/dam/zv/de/Forschungsfelder/industrial-data-space/IDS_Referenz_Architecture.pdf (link available in January 2020).

> **OUR RECOMMENDATION: The data platforms market in the B2B arena is a competitive and developing market. Policy action at this stage must be carefully examined and undergo an assessment involving industry so as not to disincentivise industrial players from sharing their data. In this context, it is important to emphasise that the dynamics in the B2B platform market are entirely different from those of B2C. Future EU policies must take these dynamics into account.**

C. What is needed to realise its potential – a flexible policy approach

Orgalim welcomes the continued focus on the role of data in the European institutions in this new legislative cycle. We support the recognition by Commission President Von der Leyen that our industry has a leadership position in many areas relating to digital transformation, including on data[5]. We welcome the announcement to work on an EU data strategy.

With this position paper, focused on the industrial context, we want to outline some focus areas aimed at achieving a true Common European Data Space. When shaping this European industrial data economy, special consideration should be given to the needs of SMEs, which are the majority of the members of Europe's technology industries and are the backbone of Europe's economy.

Industrial data is inherently different from B2C (personal) data and, therefore, needs to be viewed and tackled differently, whether from a policy or technical perspective. Industrial data is heterogenous: different data types, categories and levels of added-value exist. Data may also either be a side-product or created as part of a production network containing trade secrets. Importantly, the analysis of industrial data creates added value. Data-driven business models and services will emerge, but the data-enabled value creation and monetisation will often be embedded in services or product-services combinations. Moreover, high-quality data sets play a much more important role in industrial value chains compared to business models based purely on big data.

Furthermore, the increasing interplay between personal and non-personal data, sometimes resulting in mixed data sets, should be taken into account and will require both industry and policymakers to confront and embrace this complexity.

Orgalim proposes the following key elements for a European data policy framework:

1. Opening up data: freedom of contract as the guiding principle
2. Liability
3. Protection of data: know-how and intellectual property rights
4. Cybersecurity
5. Interoperability and portability: key to unlocking data sharing in the EU
6. The role of competition law: avoiding dominance
7. Unlocking the potential of international data transfers
8. General Data Protection Regulation (GDPR)
9. Raising awareness

1. *Opening up data: freedom of contract as the guiding principle*

---

[5] See the European Commission President "[Political guidelines for the next European Commission 2019-2024](#)" page 13 (link available in January 2020).

Europe's technology industries see the gains in sharing data between industrial actors. Companies are also taking a cautious approach out of concern to protect sensitive business data, such as trade secrets and intellectual property.

A future-proof European data ecosystem that drives industry's transformation must, therefore, strike a balance between being open and protecting sensitive business data. This is especially important for SMEs, who are vital players in the data-driven economy.

Companies must, therefore, be able to decide and to negotiate to what extent and under which conditions they share their data. Data flows in the B2B area are taking place on the basis of contractual practices. Freedom of contract should be the basis of B2B relations concerning data sharing and the overall flow of data. This principle provides the necessary flexibility and openness to innovation in the face of rapid technological development, while ensuring that sensitive business data is protected. The principle of freedom of contract should be further strengthened to create legal certainly for parties that engage in data sharing. However, in exceptional circumstances, a reasonable fairness test might be considered for certain sectors.

The most suitable way of promoting a data-driven economy would be to leave it up to companies to find appropriate agreements on data handling, and to minimise the risks and transaction costs of engaging in data-related business.

To that end, Orgalim is exploring further possibilities to contribute to this debate by creating a publication with key recommendations on examples of contract terms for the manufacturing industry relating to manufacturing data.

In this regard, we would like to stress that the European Commission should be extremely cautious about the idea of proposing hard law that would lead companies to open up their data. The effects may prove detrimental to the innovation potential of industrial data.

> **OUR RECOMMENDATION: Orgalim believes there is no need to come up with specific legislation to force companies to open up their data. This could expose commercial secrets and undermine legal certainty and trust, which would in turn stifle innovation. We believe that freedom of contract is the appropriate basis and we therefore propose a strong focus on the development of examples of contract terms for the manufacturing industry, such as those currently being developed by Orgalim.**

2. *Liability*

Liability issues can be addressed sufficiently by contracts freely negotiated by the two parties, within the framework of the overall negotiations about data sharing between companies. We have not seen any market failure that points to a need to change any element belonging to this freedom of contract regime. Therefore, we do not currently anticipate a need for legislation on this specific issue. Furthermore, liability issues will be covered in the above-mentioned Orgalim publication with recommendations on contract terms for the manufacturing industry, relating to data in manufacturing.

> **OUR RECOMMENDATION: We ask the European Commission to refrain from any specific legislation on liability for data, respecting the freedom of contract. Liability will be covered in the examples of contract terms for the manufacturing industry, such as those currently being developed by Orgalim.**

3. *Protection of data: know-how and intellectual property rights*

Orgalim aisbl
BluePoint Brussels
Boulevard A Reyers 80
B1030 | Brussels | Belgium

+32 2 206 68 83
secretariat@orgalim.eu
www.orgalim.eu
VAT BE 0414 341 438

SHAPING A FUTURE THAT'S GOOD

Industrial data represents real processes and products: data in industry can act as a digital twin, which mirrors information concerning a physical product or process. Inevitably, part of this data may contain a company's know-how. As such, it is important to protect the innovation potential behind these products and processes. Companies need to be able to trust that their know-how is protected – both in the offline world in day-to-day business with their suppliers and customers, and in the online world when dealing with internet, cloud and platform services. Their know-how should be protected against unauthorised or criminal access. This is particularly relevant for SMEs, as they often do not have the means to afford legal or technical protection measures. The Trade Secrets Directive[6] plays an important role. The aim is to create a framework in which business and process data can be exchanged in a fair and secure manner, in line with business interests.

> *Example: The data regarding a process collected for perspective analytics mirrors perfectly the production process and therefore is a business secret, protected under the Trade Secrets Directive.*

> **OUR RECOMMENDATION: The intellectual property rights of companies need to be protected from unauthorised access. Policymakers should respect companies' intellectual property rights, specifically in the context of industrial data.**

4. Cybersecurity

An important consideration that companies take into account when sharing their data is the existence of potential vulnerabilities through either intentional or inadvertent security breaches through cybersecurity breaches. Due to the increasing numbers of malicious cyberattacks in the industrial space, security has become a pre-requisite to enhance trust in data sharing for manufacturers.

> **OUR RECOMMENDATION: Cybersecurity is a deciding factor to increase trust in sharing data. In order to achieve a high level of cybersecurity for products, solutions and processes circulating in the single market, Europe needs a holistic approach to cybersecurity, and industry can contribute to shaping that.**

5. Interoperability and portability: key to unlocking data sharing in the EU

Orgalim supports (non-personal) data interoperability both at European and at international levels to enable data portability between companies. Interoperability and data portability are pre-conditions for the smooth functioning of the Digital Single Market. Lock-in effects must be avoided, and companies must have the freedom to switch providers if they wish to do so.
International alignment on data semantics and the creation of reference models to make data compatible, easily integrated and aggregated so that it can be analysed, is crucial. Application programming interfaces (APIs) for data sharing can help interoperability.

> *Example: A manufacturer wants to aggregate and optimise production data and information from the different industrial machines that are part of its larger manufacturing process. Because industrial environments are often heterogeneous, the machines may be manufactured by different machine builders in different countries inside or outside the EU. Therefore, it is essential that data is interoperable, so that it can be aggregated to be used further.*

---

[6] [Directive 2016/943](#) on the protection of undisclosed know-how and business information (trade secrets) against their unlawful acquisition, use and disclosure.

> **OUR RECOMMENDATION: Europe needs to learn how to make platforms interoperable. Policies at EU and national levels need to support this development and a fragmented approach has to be avoided. European and international standards that enable this interoperability need to serve as a basis.**

6. *The role of competition law: avoiding dominance*

With regard to industrial data, Orgalim finds that competition rules need to be thoroughly applied and enforced, since a potential abuse of a dominant position has negative effects that can be felt throughout the entire value chain. The dominant player may use this position as a sales channel in different fields of the economy, and push competitors in related fields completely out of the market.

We believe that the current legal framework is sufficient to maintain fair competition, which is the cornerstone of a well-functioning Internal Market. When companies compete to provide goods and services prices decrease, product quality tends to improve, and customers have more options to choose from. Moreover, competition also helps technological innovation to flourish.

Given that competition policy will be reviewed to check its fitness for purpose in an evolving digital global context, any review must be accompanied by an in-depth stakeholder consultation, evaluation and through a continuous dialogue involving all relevant stakeholders. This is especially important at a time when international competition is increasing and influencing European industries' role in global value chains. Technologies increasingly play an important role in enabling Europe's competitiveness, whilst ensuring a certain degree of autonomy in our industries' ability to innovate.

Companies increasingly report concerns about the legal uncertainty in data sharing from a competition law standpoint. Therefore, more clarity and legal certainty from this competition law standpoint is needed for new forms of cooperation on data. A block exemption regulation on data sharing and a guidance document on the topic would be welcomed in this respect.

> **OUR RECOMMENDATION: When reviewing the framework of competition law, ensure that stakeholders are involved to maintain a vibrant, competitive environment for innovative data-driven business models to flourish. A Block Exemption Regulation on data should be put forward.**

7. *Unlocking the potential of international data transfers*

International data transfers are becoming increasingly important in an interconnected digital economy. Orgalim asks for the inclusion of a chapter that allows international data transfers in all the future Free Trade Agreements that the European Commission is negotiating, doing away with data localisation requirements. We also hope that the EU and Japan will reassess as soon as possible the inclusion of provisions on the free flow of data (other than personal data) in their Economic Partnership Agreement.

> **Example:** *A worldwide leader in machinery uses and transmits non-personal data on a daily basis. For instance, a fleet management solution leverages machine-to-machine technologies to increase its customers' fleet productivity and performance, while lowering operating costs. Sensor-enabled machines transmit performance and information from the ground via satellite signals to centres where data can be analysed. This enables the manufacturer and its customers to remotely monitor assets across their fleets in real time.*
>
> *This helps to:*
> - *identify machines that are not optimally used,*

Orgalim aisbl
BluePoint Brussels
Boulevard A Reyers 80
B1030 | Brussels | Belgium

+32 2 206 68 83
secretariat@orgalim.eu
www.orgalim.eu
VAT BE 0414 341 438

SHAPING A FUTURE THAT'S GOOD

> - *make better equipment decisions,*
> - *reduce idle time,*
> - *examine the performance of a single machine or a specific worksite over time.*

8. General Data Protection Regulation (GDPR)

Although machine data relates mostly to non-personal data, there might be mixed data sets. Due to the wide set of definitions outlined in the GDPR[7], these might be linked to persons and therefore fall within the

> **OUR RECOMMENDATION: Enable international data flows by avoiding and doing away with data localisation requirements to fight digital protectionism.**

scope of the GDPR. The obligations of the GDPR are challenging, especially for SMEs. We hope that the European Commission will take this into account in its upcoming evaluation and review of the GDPR.

In order to deal with mixed datasets specifically, we further ask for guidance from the European Data Protection Board on how to best anonymise data in an industrial context, in order to be able to easily process it.

> **OUR RECOMMENDATION: Orgalim is currently assessing the impact of GDPR on our companies and stands ready to contribute to the upcoming evaluation of the General Data Protection Regulation, which the European Commission will carry out in first semester of 2020.**

9. Raising awareness

One important aspect of creating more trust around data sharing, especially amongst the SME community, is to provide more guidance regarding potential obstacles and how to overcome them. As previously mentioned, obstacles to data sharing cannot be attributed to one single cause. Therefore, we need to gain a better understanding of the manner in which specific obstacles are perceived – sometimes inaccurately – and try to address these. To that extent, we fully support the Commission's efforts to create a point of contact to share questions and provide solutions. As Orgalim, we are also committing to a specific effort to inform our members regarding the potential of data sharing, gather data on the perceived obstacles, and provide guidance on how to best overcome these.

Conclusions

Europe's technology industries represent companies that innovate at the crossroads of digital and physical technology. As key drivers and beneficiaries of the digitalisation of industry, these industrial sectors play a leading role in the data-driven economy. Orgalim believes that future policy discussions should focus on shaping a future-proof and flexible ecosystem for industrial data.

With the use, sharing and transfer of industrial data, our industries can develop and manufacture those products and systems that can tackle economic and societal challenges. We are convinced that a balanced approach to industrial data in Europe, building on our core industrial strengths, will enable our industry to unlock the full potential of industrial data. Considering the rapidly changing technological environment, we call on all stakeholders to work on an approach that will allow our industries to innovate and compete internationally – and work with us to shape a future that's good for Europe.

[7] Regulation (EU) 2016/679 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data.

Adviser and Director responsible:
Silvia Selandari, Adviser – Digital, Trade & Legal
Christoph Luykx, Director – Innovation and Digital Transformation