City of Amsterdam

European Commission

Amsterdam Economic Board

Report workshop EU data exchange initiatives

'Accelerating a sustainable European data economy'

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'Accelerating a sustainable European data economy'
7 – 8 november 2019, Amsterdam

Results of the workshop connecting data exchange initiatives in Europe and identifying key factors for successful growth

1. INTRODUCTION

On 7 – 8 November 2019 the European Commission DG CONNECT, the City of Amsterdam and the Amsterdam Economic Board organized a first workshop connecting data exchange initiatives in Europe to identify key factors for successful growth, as part of a series of events on data exchange organized by the European Commission in view of future policy and funding activities for data economy.

The purpose of the event was to:
1. Learn from each other and to enhance the informal network of data exchange initiatives,
2. Analyse and discuss common challenges, similarities and differences of data exchange initiatives,
3. Develop recommendations for the upcoming policy and funding initiatives of the European Commission and Member States, to support data exchange initiatives.

The event focussed on **bringing together data exchange coalitions and initiatives**, whether researchers or companies, developing a specific data exchange service or solution with cross-sectoral relevance and with a decentralized service model.

Member States and business representatives were also invited to make sure the insights of data initiatives were combined with policy insights and applications for industry.

With strong interaction between data exchange initiatives amongst each other and with different levels of policy experts and business representatives, the workshop was productive and emphasized the need and potential for **strengthening cooperation between data exchange initiatives** to establish effective **governance** for a fair and open European data market. A presentation and participation by Yvo Volman, Head of Unit Data Policy & Innovation at the European Commission DG CONNECT set out the current European policy framework and included insights from a European perspective on data economy. Caroline Nevejan highlighted the importance of data exchange for cities and regions and for a European approach to data exchange and referred to the Amsterdam Data Exchange as an example of how cities and regions contribute to the development of a future data market.

2. RESULTS

The overall conclusion of the workshop was that there is a high sense of urgency to speed up the efforts to develop a sustainable European data economy which is effective in facilitating more exchange of data, within and across sectors. Exchange of data plays a key role in economic development, for example in the field of AI, but also in policy and academic research.
To do so, it is necessary to develop a clear EU **governance** framework and a **coordinated European infrastructure** to facilitate more effective data exchange. There is a need to continue exploring the shape of such a framework between data exchange initiatives amongst each other and with different policy layers.

The workshop also played a role in **analysing commonalities and differences between data exchange initiatives.** Presentations by seven different data exchange initiatives or schemes[1], most of them operating on a commercial basis and as 'neutral' intermediaries' ('datamarket-as-a-service') or developing schemata/reference architectures for commercial use showed a wide variety in progress, sectoral focus and business models. Earlier scans also pointed to the difficulty of identifying standard approaches for data exchange.

In parallel sessions, participants provided input from their expertise on several key questions for developing a European data economy:
• What are the benefits and disadvantages of a central common European data exchange schema?
• How can data exchanges facilitate increased technological sovereignty and (citizen) control over data?
• How can data exchanges be of value and relevance for fair innovation and fair competition in our future economy?
• What is needed to scale up and accelerate data exchange solutions?
• What are the arguments for using either commercial or cooperative approaches to data sharing services?

2.1 COMMON CHALLENGES

Another aim of the workshop was to **define common challenges** of data exchange initiatives. Participants identified a wide array of issues, both on the demand and supply side of data economy. Another cross-cutting issue is the need for trust in data exchanges as reliable market places. Many of the issues identified revolve on the question of some form of **governance**: Governance of rights to access and use data and governance in a technical sense (standards, interoperability, protocols).
The identified issues can be categorized into 5 challenges:
• Awareness of the value of data and incentives for data sharing by businesses needs to be improved, creating greater demand for data exchange;
• Discoverability of available data ;
• Lack of clarity about governance, liability and regulations for data exchange in Europe, resulting in unequal competition with other global actors, uncertainty for data exchange business models and investments in the EU;
• A lack of a coordinated support infrastructure or EU roadmap that allows for data exchanges to work together and create interoperability;
• For data exchange initiatives to be successful, clients need to be able to trust that the quality of datasets is up to standards and that the provided product meets expectations;

[1] Dawex, Streamr, Datapace, Databroker DAO, iShare, International Data Spaces, Amsterdam Data Exchange, A new governance

2.2 SOLUTIONS

Coordination

In a subsequent working session, participants were asked to develop possible **solutions** for the five challenges. First of all, participants agreed that the challenge of developing a sustainable data economy with one or several functioning data marketplaces, whether centralized or decentralized, requires European politics to develop a long-term political vision that expresses the will to develop a fully functioning European data market in 5-10 years, developed into a clear roadmap. Participants agree that businesses can play a large role in developing a data market, but that government should play an agenda-setting and coordinating role. This needs to be done preferably on all levels of government and in an orchestrated manner.

Cooperation between data exchange initiatives

Participants agree that a data economy requires technical standards for interoperability, but even more so rules and coordination. Connecting data exchange initiatives on technical, legal and executive levels is one way to do so. The EU could orchestrate stronger coordination by defining a cluster of data exchange initiatives that are to play a role in executing the roadmap, for example by providing input for formal (ISO) standards. The cluster of data exchange initiatives could also contribute to operationalizing the roadmap by designing a soft infrastructure for data exchanges, i.e. the overall framework of regulations and governance needed for data exchange.

A supporting infrastructure for the governance of data exchange

Data exchange needs effective governance and coordination. There are at least 3 layers for governance, which provide for the 'soft infrastructure' of the data economy: : a) setting the legal context, b) defining operational rules and standards, certification, and c) enforcing existing rules and regulations. The three layers of a future data exchange infrastructure correspond to separate tasks for which different bodies are required to play a role. The legislative framework comes from existing EU and Member State legislative bodies, but for other tasks other future institutions might need to be set up. The soft side of the infrastructure of data exchange could consist of:

a) A legislative framework to set regulations across the E, such as rules on a) who can access which data and under which conditions, b) how sharing should be organized once there is a right of access and c) requirements for data transactions and for the sharing infrastructure, such as intermediaries.

b) Bodies that define operational rules, standards and certifications and/or a registry for data exchange initiatives as distinct entities

c) Controlling authorities to enforce the set of rules and regulations

Funding

Convergence in funding is required to develop the envisioned roadmap. The roadmap and the cluster of data exchange initiatives need to be supported by a long-term investment plan and a fund with public investments matched by private funding. The fund should also play a substantial role in communication and awareness on the public impact of data. Short-term funding could be directed towards mock courts and sandboxes to test the practical requirements for a regulatory infrastructure.

3. CONCLUSIONS

The results of the workshop will feed into the **High Level Conference on Data Economy** on November 25th in Helsinki, organized by the Finnish Presidency of the Council of the EU, as input for the contributions of both European Commission Director-General of DG CONNECT Roberto Viola and the Deputy Mayor for Digitization of the City of Amsterdam Touria Meliani. The input of the workshop will be joint together with the input from the other workshops in a series of events organized by the European Commission on data exchange as input for the plans of the new Commission.

There is a clear consensus amongst participants that it would be of value to strengthen cooperation between data exchange initiatives, in connection with policy makers on different government levels. The minimal outcome of such collaboration would be to continue exchanging experiences in more depth than was possible in the current workshop. One first step in establishing such cooperation is to organize a follow-up event to decide on the needs for further cooperation. In a later phase, cooperation between data exchange initiatives could be used to provide input for the development of European data exchange. More structured collaboration by working on common challenges could be another strand of action. As many of the recommendations revolve around the theme of governance, a potential next step would be to improve the organization of data governance at a technical level, as a structural enabler for data access and use.

Annex I, overview of EU framework for data economy

Data-driven innovation is a key driver of growth and jobs that can significantly boost European competitiveness in the global market. In a policy Communication of 10 January 2017 on 'Building a European data economy' , the European Commission considered that more data exchange in business-to-business situations should be encouraged and that market places for data could be part of the solution . On April 25th 2018, the Commission published its Communication: 'Towards a Common European Data Space'. In this document, the Commission proposes a package of measures as a key step towards a common data space in the EU - a seamless digital area with the scale that will enable the development of new products and services based on data. If the right framework conditions are put in place, the European data economy was expected to double by 2020 as compared to 2018. The Communication observes that further action is needed in order to improve the efficient use of data across the EU.

Data economy and data sharing serve different interests and purposes depending on the context and on the design and maturity of the specific data exchange solution provided. One important application for data exchange is making more data available for AI. The European Commission Coordinated Plan on Artificial Intelligence (2018) mentions the importance of data spaces for AI applications as well as test facilities for a range of sectors. Funding for such activities shall be foreseen under a new investment programme, the Digital Europe programme. Also, the needs of industry and business can be an important determining factor for the design of data exchange infrastructures. One pre-condition for data sharing is data discovery and the findability of data, identified as one of the FAIR data principles (findable, accessible, interoperable and reusable).

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