BDVA welcomes the European Commission’s communication “Building a European Data Economy” and supports the objective to foster in the European Union an optimal uptake of data value extraction and creation.

Undeniably, the adoption of a favourable and performant policy and legal framework is important for the flourishing of the European data economy. However, thorough community awareness and business models on industrial data sharing are still in the very earliest stages of their development. The Communication points out that more than three quarters (78%) of all produced data are still generated and analysed in-house or by a sub-contractor. In this respect we support the view that the market should have the opportunity to further experiment and develop, taking into account current rules on competition law, data protection, intellectual property and consumer protection, such new data-based business models before intervention is defined.

BDVA wants to stress the importance of awareness, trust, data skills and access to data-experimentation and data-innovation. Awareness raising, the development of data skills and the creation of trusted areas that allow for experimentation are three environmental factors that provide a powerful stimulus to the community to venture themselves in the digital economy. BDVA will continue in this regard the development of European Innovation Spaces (i-Spaces) under the BDV PPP. The creation of data innovation hubs (that detain the necessary expertise to accelerate data-driven innovation in trusted environments) and of awareness (to engage more actors and overcome their initial reluctance to data sharing) needs additional and continuous support.

Free Flow of Data

The BDVA sees European Innovation Spaces (i-Spaces) as important enablers for the exploration of the impact and potential of data-driven innovations. Federation is a development that brings these centres together, enabling to create cross-European experimentation facilities. Free flow of data, as outlined in the Communication, will be important for these federated i-Spaces. As indicated in the BDVA SRIA, the concept "Data as a Service" implies that cross-border exchange of data would be beneficial for business based on these concepts.

Data Access, data transfer

To support validations, trials and large-scale experiments, access to valuable data assets needs to be provided with low obstacles in environments that simultaneously support legitimate ownership, privacy and security related to data owners and their customers. These environments will ease experimentation for researchers, entrepreneurs, SMEs and large ICT providers.
Concerning the proposed policies on data access and transfer we do not see an imminent need to regulate questions relation to the accessing and licensing conditions to data. Currently, these issues are resolved by contractual chains. A premature regulatory intervention, introducing a brand new concept such as “data ownership” might create unnecessary legal uncertainty and subsequently stifle innovation. As mentioned in the introduction of this statement the market should be free to experiment and develop new business models before we can evaluate if and how regulatory intervention could amend certain imperfections of those.

The stimulation of trusted, secure, neutral and sovereign pre-competitive Big Data-Experimenting-Hubs should remain a policy priority. BDVA will continue the work on the development of i-Spaces and awareness raising in the community on the topics of data access and data transfer. BDVA supports the creation of data market places; BDV PPP Lighthouse projects should also demonstrate the viability of large-scale data marketplaces. A key element concerns interoperability and openness. A crucial tenet in the operationalization of this requirement concerns the development of open application programming interfaces (API). BDVA agrees on the stressed importance in the Communication of the development of technical solutions for reliable identification and exchange of data and the importance of research and innovation in e.g. anonymization techniques.

BDVA encourages the provision of guidance to the community and will continue to work on assembling and documenting best practices in data sharing among the members; one step that we will take is a members’ survey in which we take stock of existing approaches.

**Liability**

When data (either raw data or processed data) is traded in a business value chain, the question of liability may arise. Apart from issues relating to personal data, which are covered by the GDPR, there may be issues to be addressed for non-personal data.

The SRIA states that “the PPP needs to contribute to the policy and regulatory debate about nontechnical aspects of the future Big Data Value creation as part of the data-driven economy. Dedicated projects have to address the circumstance of data governance and usage, data protection and privacy, security, liability, cybercrime, Intellectual Property Rights (IPR), etc”.

Liability related to data issues should be explored in projects; outcomes of these projects will be a crucial element in the assessment of what issues could result in regulatory implementations, and what issues can best be left to be contractually agreed between business partners.

**Portability, interoperability and standards**

BDVA strongly supports further developments in data interoperability and standardisation. We believe that the development of an interoperable data-driven ecosystem as a source for new businesses and innovations using (Big) Data is the basis of data value creation in Europe. This applies both to the technology and to the data. Solutions at EU level that avoid vendor lock-in and increase systems interoperability will be especially desired in an attempt to reach economies of scale. Standards are key elements of the technical knowledge landscape for enterprise. Data standards and interoperability are pivotal to boosting export activity, job creation and in galvanising innovation to contribute to economic growth, facilitating improved business performance, promoting innovation and driving competitiveness and exports into new markets.
Standards provide a quality measure enabling the differentiation of products by individual characteristics. Open standardization and standards development enable a competition between and within technologies and contribute therefore to innovation-led growth. However, one of the current major weaknesses identified for the development of the Big Data in Europe is “the lack of seamless data access and inter-connectivity and low levels of interoperability: data is often in silos and data sharing is difficult due to a lack of standards”. Lack of commonly agreed standards and frameworks imposes high-levels of additional cost for industry and users.

Following the communication BDVA recommends:

- Minimising barriers between industries and sectors by prioritising a reference architecture or reference model.
- Supporting investing and progressing in the interoperability and standardisation agenda aspects such as e.g. Standardising Semantics in Big Data; Standards for data quality definition, fostering normalization of data acquisition to reduce variability, increase value of data repositories and help trusted decisions; Linguistic standardisation for cross sector data, among others.
- Harmonisation of standardisation research and development pursuing coordination between different National initiatives to create a European workforce in data standardisation and interoperability.

**Experimentation and testing**

As pointed out by the Communication, and confirmed by the BDVA members, business models that rely on exchanging data are still evolving. Best practices have yet to emerge. It is observed that in the BDVA i-Spaces, the approaches towards data sharing are still quite heterogeneous. In this respect we support the view that the market should be left open to further experiment and develop such new data-based business models to ensure evidence-based intervention. The current rules on competition law, data protection, intellectual property and consumer protection provide sufficient flexibility for the market to flourish and come up with innovative action plans.

Experimentation and testing is an essential activity to explore the implications of technological innovations in real-world settings in order to unearth unexpected consequences, unobserved aspects, and creative shortcuts. This counts for data value chains within one domain, but is especially important for cross-domain data value chains. BDVA strongly believes that projects under the PPP are instrumental to test whether markets may be developing favourably and/or regulatory interventions are necessary.

The Communication mentions examples from the Mobility domain and the Geo-spatial domain. Other examples can be identified, like the Agriculture domain (processing and sharing data related to precision farming), Energy (related to smart metering and distributed energy production), Industry (interconnected manufacturing; machine owners and machine manufacturers; or 3D printing and trading design data), and many others. Just as in the Lighthouse calls (“sectors best benefiting from big data”), it is good to invite proposals from the sectors themselves on the best places to start experimentation. For the experimentation itself, Digital Innovation Hubs (comparable to the BDVA ‘i-Spaces’) concept is ideal. The BDVA proposes to keep a wide view on application domains, and establish bottom-up exploratory processes in i-Spaces-like settings.

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About BDVA

The Big Data Value Association AISBL (BDVA) is an Industry-driven and fully self-financed international non–for-profit organisation under Belgian law. BDVA has over 170 members all over Europe with a well-balanced composition of large and small and medium-sized industries as well as research and user organizations.

The objectives of the Association are to boost European Big Data Value research, development and innovation and to foster a positive perception of Big Data Value. In particular, BDVA aims at:

- strengthening competitiveness and ensuring industrial leadership of providers and end users of Big Data Value technology-based systems and services;
- promoting the widest and best uptake of Big Data Value technologies and services for professional and private use;
- establishing the excellence of the science base of creation of value from BIG DATA.

The Big Data Value Association (BDVA) is the private counterpart to the EU Commission to implement the BDV PPP programme (Big Data Value PPP). The BDV PPP was launched at the end of 2014, but its operationalization has been especially pushed forward with the launch of the LEIT work programme 2016/2017.

About the Authors

This position paper is delivered as part of the work of BDVA Task Force 5 (Policy and Societal) in collaboration with BDVA Task Force 6 (Technical Priorities, in particular with the input of TF6-SG6 Standardisation) and contributions from the whole BDVA community.

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