

A CALL TO ACTION

This manifesto calls to action both public and private organisations in Europe to set up an industry-led initiative that could help to structure and coordinate efforts aiming at building the basis of an ecosystem that puts Europe at the forefront through Big Data innovations.

The era of Big Data has started

Data is the raw material on which digital societies and economies build their own structure and wealth. Digital societies and economies are so complex that they can only prosper through the full use and understanding of their intimate nature, a nature that is materialised through data.

Data are not useful per-se, and is only when they are properly handled and understood in the right context that they generate value, i.e. 'the potential economic and social value that ultimately motivates the accumulation, processing and use of data'¹.

Data is more and more becoming the basis for competitive advantage. Today we are creating every two days the equivalent of all data generated through human history up to 2003: to cope with such phenomenal explosion and bring to light the era of Big Data value, new technologies and new way of handling data are needed.

Because of the absence of a coherent data ecosystem, insufficient technology deployment and transfer, and low level of investment in data infrastructure, Europe risks lagging behind

In this context, the latest European Council dealing with the digital economy called for actions² and collaboration on Big Data.

A disruptive change creating opportunities for innovation and growth

Europe and the world will significantly change by 2020. Value creation from Big Data will be a major driver that will **transform** the 21st century economy and society, and it will have a **disruptive influence** on **social innovation**, **economic growth** and **public services provision**. New jobs and businesses will be created and the professions of data analyst and data scientist will become essential to support decisions at all levels.

From healthcare to education, from energy to water management, from entertainment to mobility, in all sectors Value generation from Big Data will be a key factor in fuelling innovation, developing new business models, supporting productivity growth, and coping with societal challenges.

Engaging the private and public sectors to exploit the socio-economic potential of Big Data

European policy makers at all levels - together with industry and academia - have the opportunity to build a conducive data eco-system for fully exploiting the socio-economic potential of value generation from Big Data. **The definition and implementation of a solid long-term research and innovation agenda** on data is a first and necessary building block for the creation of such eco-system.

There is a need to **delineate a research private-public collaboration on data**, paving the way for a new Big Data ecosystem where Europe plays a leading role within the global context, not only in terms of technology adoption, but also in terms of technology development, creating a solid and innovative industry by 2020. This collaboration should aim at:

- Building Big Data infrastructures, technologies and solutions
- Generating a suitable research and innovation space on data for both social innovations and new business opportunities
- Participating in building a pan-European framework to address those non-technical barriers that that could prevent Europe from fully exploiting the socio-economic benefits of Big Data and from becoming a leading actor in the global market by 2020

Join in for further information at BigDataValue@NESSI-Europe.eu

¹ OECD (2013), 'Exploring Data-Driven Innovation as a New Source of Growth : Mapping the Policy Issues Raised by "Big Data"', OECD Digital Economy Papers, No. 222, OECD Publishing

² 24.10.2013 European Council conclusions: http://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/ec/139197.pdf