The New Economic Asset

Become a member of BDVA at www.bdva.eu
Big Data is high **Volume**, high **Velocity**, high **Variety**, and high **Veracity** information that demand cost-effective and innovative forms of information processing. This allows for enhanced insights and improved decision making so releasing high **Value**.

**Current research and innovation priorities in Big Data Value**

- Volume
- Velocity
- Variety
- Veracity

**Value**

- Improving efficiency
- Creating transparency
- Discovering user needs
- Better product/service customization

**Data**

- Data Management
- Data Processing
- Data Analytics
- Data Protection
- Data Visualization

**Zettabytes of data generated in the world**

**Why is Big Data important?**

Data is a key asset to generate value by fostering new business models and generating powerful ecosystems with strong European players along the entire value chain.

**Impact**

<table>
<thead>
<tr>
<th>Public Administration</th>
<th>300 €</th>
<th>New Value due to Reduced Administrative Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Healthcare &amp; Social Care</td>
<td>90 €</td>
<td>Reduction of National Healthcare Expenditure</td>
</tr>
<tr>
<td>Transports &amp; Logistics</td>
<td>500 €</td>
<td>Time and Fuel Savings</td>
</tr>
<tr>
<td>Retail &amp; Trade</td>
<td>3300 €</td>
<td></td>
</tr>
<tr>
<td>Geospatial</td>
<td>800 €</td>
<td>Releasing Revenue to Service Providers</td>
</tr>
<tr>
<td>Application &amp; Services</td>
<td>51 €</td>
<td>Primary Big Data Market Size</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>45 €</td>
<td>Productivity gain</td>
</tr>
</tbody>
</table>

Source: Big Data Value Association, “Big data value strategic research and innovation agenda (SRIA)”
The **Big Data Value Public Private Partnership** (Big Data Value PPP) commenced in 2015. It will start its first projects in 2016 and will run until 2020. The PPP, in which the European Commission represents the 'public' side and the Big Data Value Association represents the 'private' side, will lead to a comprehensive innovation ecosystem for achieving and sustaining European leadership on Big Data, and for delivering maximum economic and societal benefit to Europe, its businesses and its citizens.

The **Big Data Value Association** is a fully self-financed non-profit organization under Belgian law. The BDVA is an industry-led association representing the Big Data Value stakeholder community with a presence in Europe. Its principles are openness, transparency and inclusiveness. If you would like to be a **Full, Associate or subscribing member of BDVA** please check out our website at [www.bdva.eu](http://www.bdva.eu). Benefits include:

- Representing a strong industry voice and enabling impact in Big Data Value topics across Europe.
- Direct information and representation of interests to the European Commission and member states.
- Gaining access to peers, key players and networking within project and proposal consortia.
- Membership of the General Assembly with access and influence in BDVA Task forces and Subgroups.

**Big Data Value Innovation Strategy**

**EU Commission**

- Research objectives

**Big Data Projects**
- Horizon 2020
- Stakeholders
  - Community
  - Industry Large
  - Industry SME
  - Research
  - User
  - Others

**Big Data Value Association**

**Research & Innovation Actions**

**Innovation Actions**

**Lighthouse Projects**

Projects to demonstrate specific Big Data Value ecosystems and sustainable data marketplaces; for example:

- Health
- Manufacturing
- Transport
- Logistics
- Energy
- Media
- Demo
- Experimentation, Training, Test, Showcase and Benchmarking

**i-Spaces**

**Innovation Spaces**

Geographic and sectorial infrastructures that allow research on BDV technologies to be quickly tested, piloted and exploited, to develop skills, share best practices, develop new business models and evaluate social impact.
Research & Innovation Priorities

Data Management
Engineering data and its management
- Handling unstructured and semi-structured data
- Semantic interoperability
- Measuring and assuring data quality
- Data management lifecycle
- Data provenance, control and IPR
- Data-as-a-service model and paradigm

Data Processing
Optimized architectures for data-at-rest and data-in-motion
- Architectures for data-at-rest and data-in-motion
- Techniques and tools for processing real-time heterogeneous data
- Scalable algorithms and techniques for real-time analytics

Data Analytics
Novel algorithms for predictive and prescriptive analytics
- Improved Models and Simulations
- Semantic Analysis
- Event and Pattern Discovery
- Multimedia (Unstructured) Data Mining
- Deep Learning Techniques for Business Intelligence

Data Protection
Mechanisms to make data owners comfortable about sharing data
- Complete Data Protection Framework
- Data minimization
- Mining Algorithms
- Robust anonymisation algorithms
- Protection against reversibility
- Pattern hiding mechanism
- Secure Multiparty Mining mechanism

Data Visualization
Intelligent visualization of complex information relying on enhanced user experience and usability
- End User Centric visualization and analytics
- Dynamic Clustering of information
- New visualization for geospatial data
- Interrelated Data and Semantic relationships
- Qualitative Analysis at a high semantic level
- Real-time and collaborative 3-D visualization
- Time dimension of Big Data
- Real-time adaptable and interactive visualization

BDVA Founding Members