

Health



Food & Agriculture



Energy



Transport



Climate



Social Sciences



Security

BIG DATA EUROPE

Empowering Communities
with Data Technologies

BIG DATA EUROPE PROJECT

EMPOWERING MOBILITY MANAGEMENT WITH BIG DATA

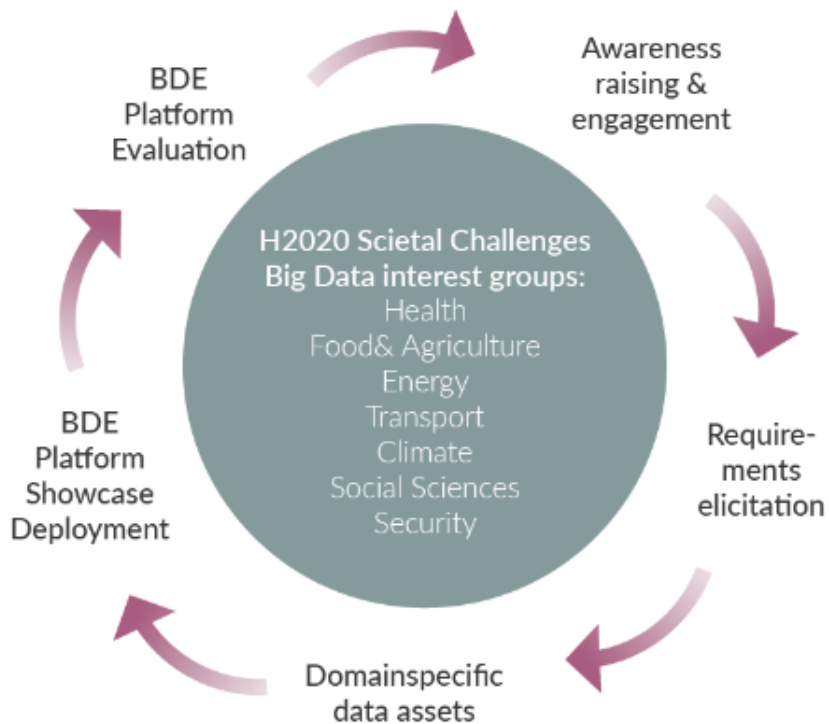


14.09.2017

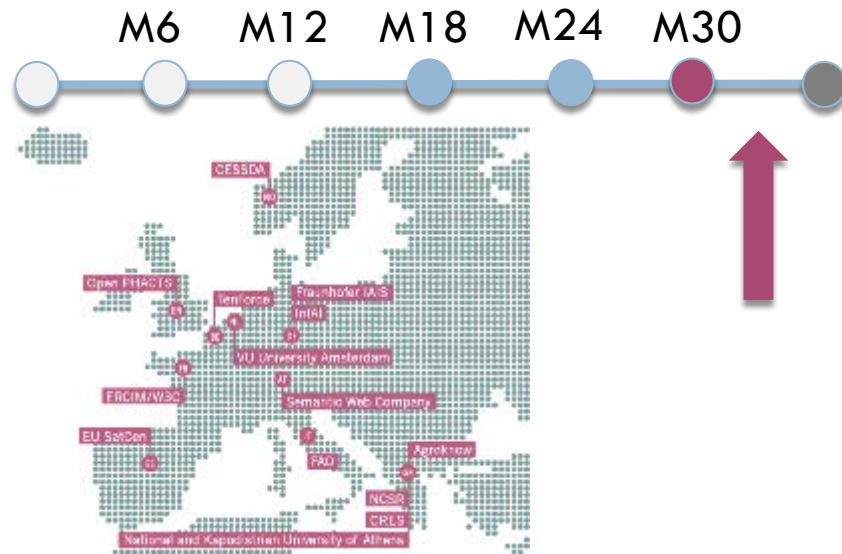
SC4 Final Workshop



Stakeholder Engagement & Activities

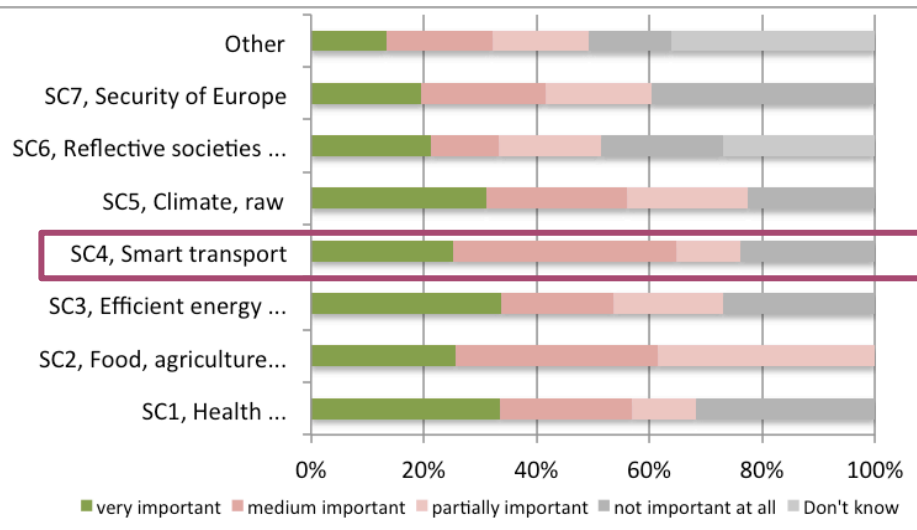


Coordination & Support Action 2015-17

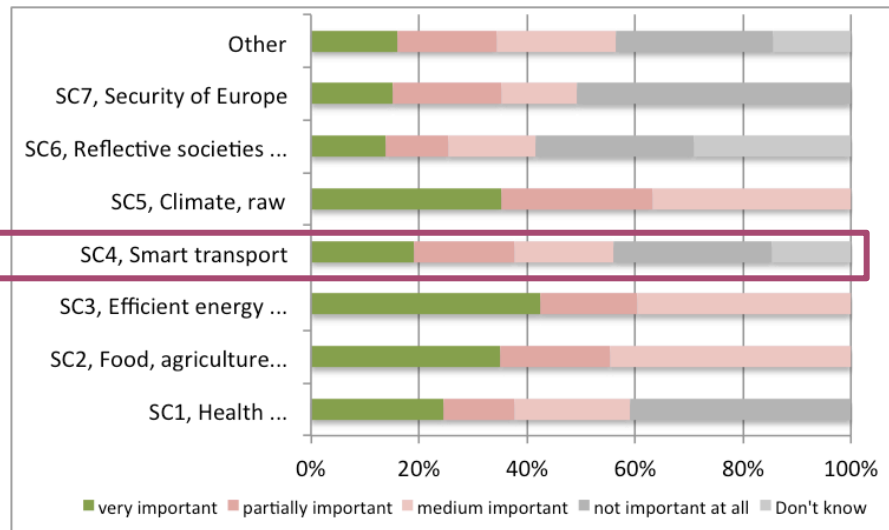




Stakeholder Requirements (1)



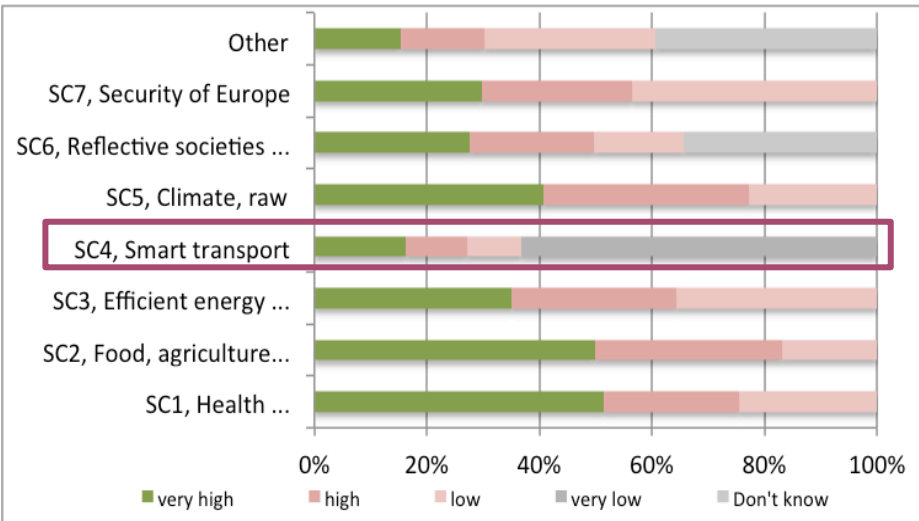
Importance of Volume



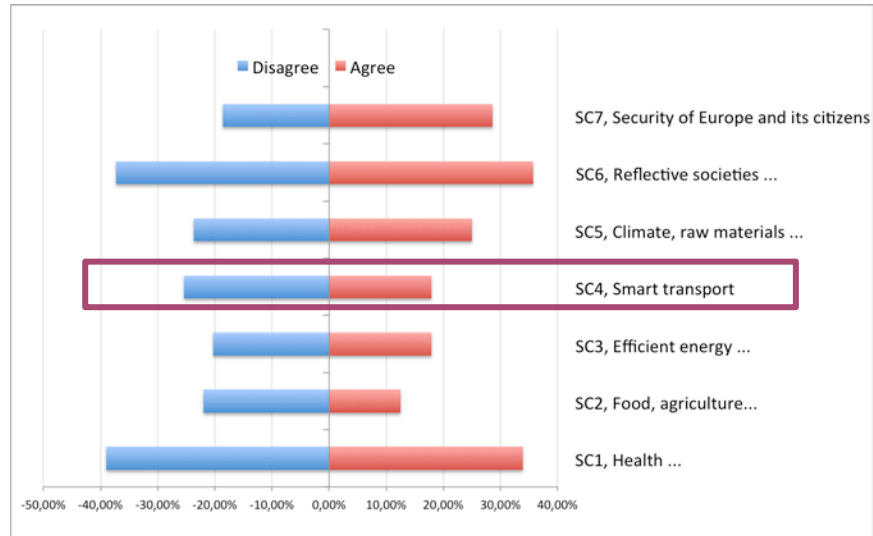
Importance of Velocity



Stakeholder Requirements (II)



Importance of Variety



Efficiency of Data Infrastructures



Societal Data Value Chain Requirements

| | | | Societal Challenge | | | | | | |
|--|--|---------------------------------------|--------------------|------------------|------------------|-----------|-----------|------------------|-----------|
| | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| D A T A V A L U E C H A I N | Data Generation, Acquisition and Harvesting | Using API | Common | Common | Specific | Common | Specific | Specific | Common |
| | | Using metadata | Specific | Specific | Specific | No common | Specific | Specific | Specific |
| | | Crawling/ingestion/loading components | Specific | Specific | No reliable data | Specific | No common | No reliable data | Specific |
| | Data Analysis and Processing | Data enriching | Specific | Specific | Specific | Specific | No common | Specific | Specific |
| | | Analysis | Specific | Specific | Specific | Specific | Specific | Specific | Specific |
| | Data Curation | Cleaning | Common | Common | Specific | Common | Common | Specific | Specific |
| | | Normalizing | Specific | No reliable data | Specific | No common | Specific | Specific | Specific |
| | | Data update | Specific | Specific | No reliable data | Specific | Specific | Specific | Specific |
| | Data Storage | Amount of data used | Common | Common | Specific | Specific | Specific | Specific | Common |
| | | Storage | Common | Specific | Common | Specific | Specific | Specific | Common |
| | Data Dissemination, Visualisation and Usage & Data-driven Services | Present/visualize the output | Common | Specific | Specific | Common | Specific | Common | Common |
| | | Publish data | Specific | Specific | No common | Specific | Specific | Specific | No common |

- Common requirements for a common functionality identified
- Specific requirements for a common functionality identified
- Specific requirements for a specific (set of) functionality identified
- No common requirements identified
- No reliable data available

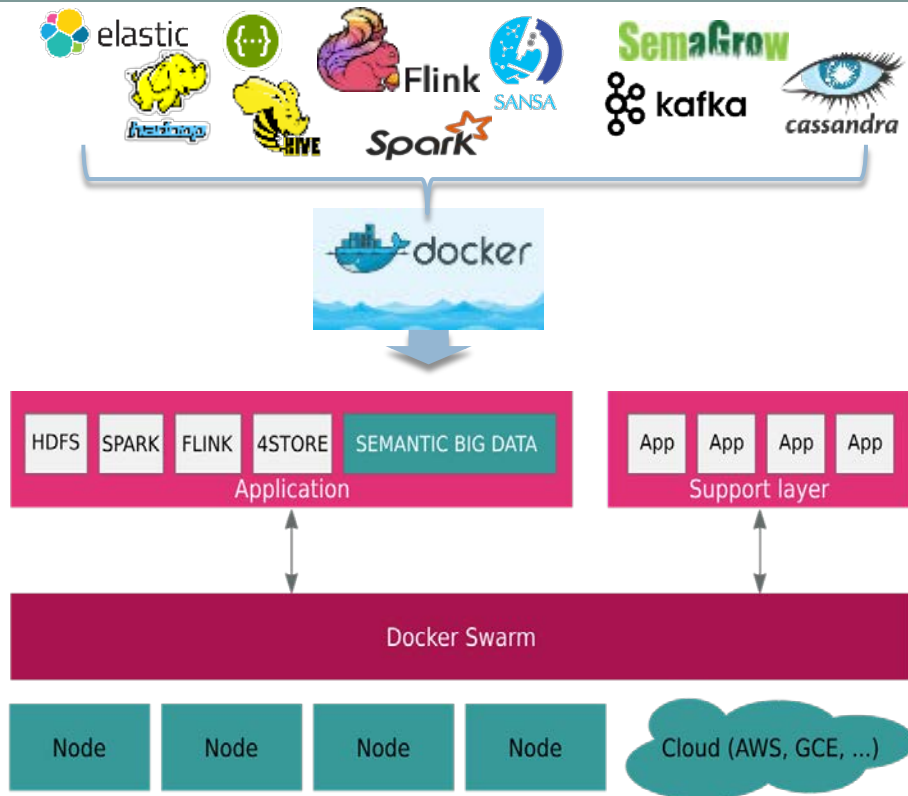


BDE Integrator Platform Released!

- ⊙ Stacks Open Source solutions (Free)
- ⊙ **Dockerization**
- ⊙ Facilitates integration and deployment
- ⊙ Plug-and-play BD Platform
- ⊙ Key BDE additions
 - Support layer: integrated UI
 - Semantification layer
- ⊙ **Final Release:**
 - November 2017

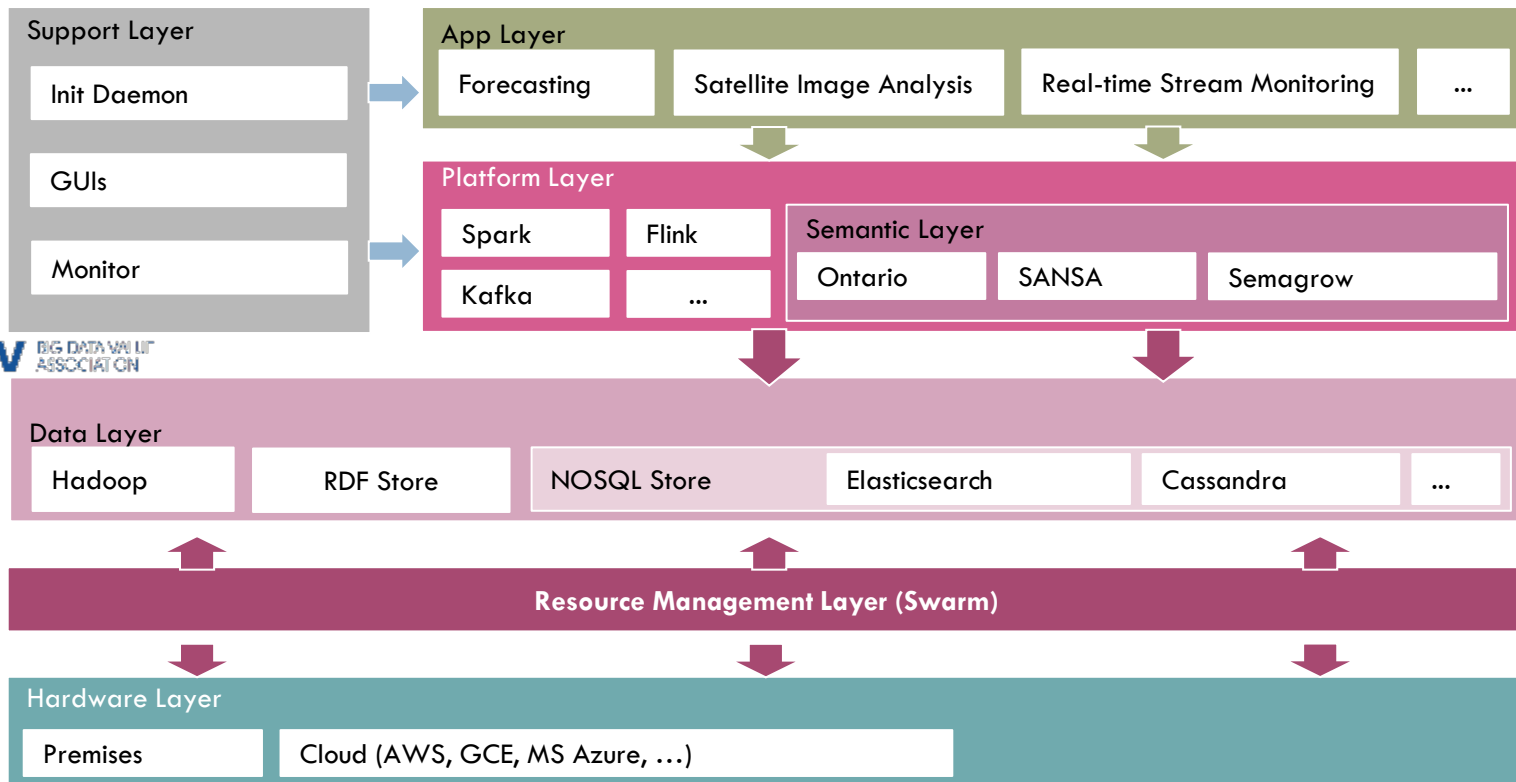


www.big-data-europe.eu





Positioning BigDataEurope into BDVA Ref. Model





BigDataEurope's 7 Pilots

◎ BigDataEurope Platform Instantiations

- Allow end-users to easily deploy functionality in own system environment
- Modularized Docker approach - easier to replace components
- Reduces effort to keep 3rd party software updated & integrated

◎ 7 Societal Challenge Pilots

- Aligned with 7 European Commission H2020 Societal Challenges
- Real-world use-cases (**Data, Objectives, Solutions**)
- Some pilots have different data & objectives but a similar solution

◎ More info: www.big-data-europe.eu/pilot/



7 Integrator Platform Instances



Health



Food & Agriculture



Energy



Transport



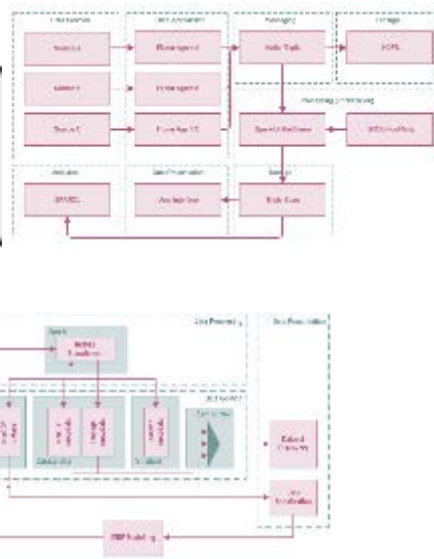
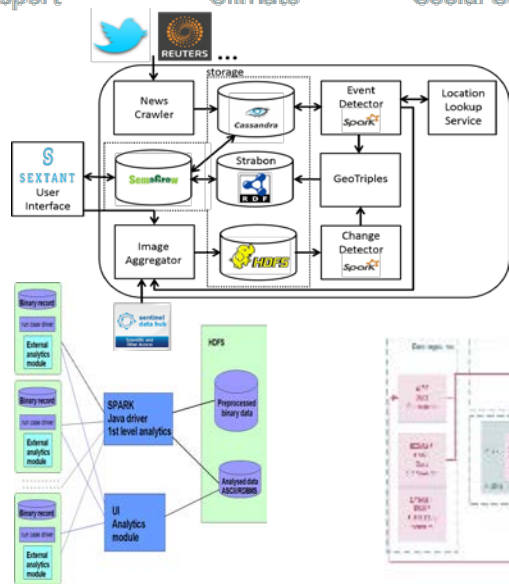
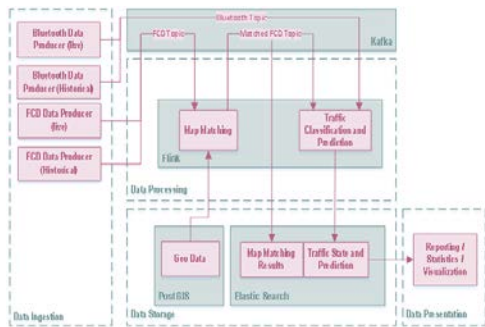
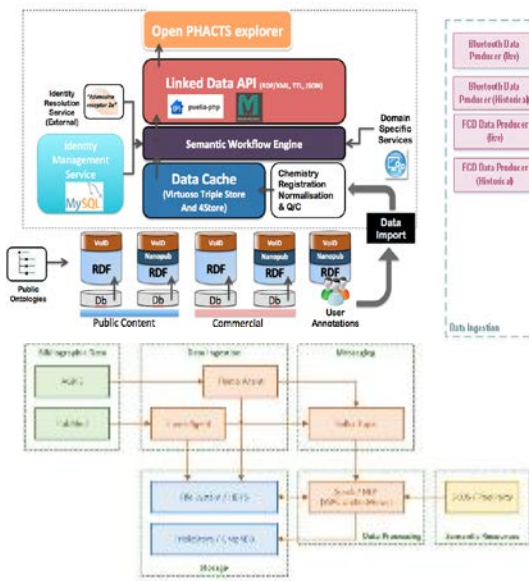
Climate

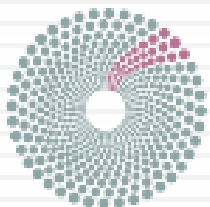


Social Sciences



Security





www.big-data-europe.eu



#BigDataEurope



Questions & Contacts



Leads Fraunhofer
Big Data Alliance



Full Member

Input: Requirements,
Technical, Standardisation

BIG DATA INTEGRATOR  **GitHub**

www.github.com/big-data-europe

PILOT DESCRIPTIONS

<https://www.big-data-europe.eu/pilot/>

PROJECT COORDINATION (Fraunhofer IAIS)

Prof. Sören Auer, auer © cs.uni-bonn · de

> **Dr. Simon Scerri**, scerri © cs.uni-bonn · de

EIS Department/Group,

Fraunhofer IAIS & CS Department Uni-Bonn, Bonn, Germany