H2020-LEIT-ICT WP2018-2020

European Data Infrastructure
ICT-13
Supporting the emergence of data markets and the data economy

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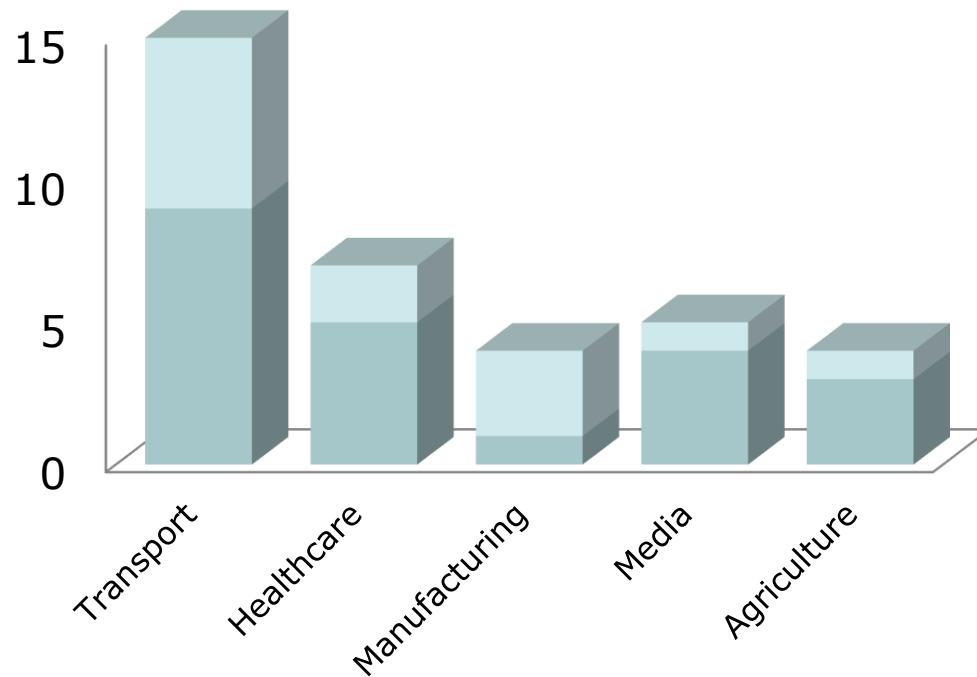
Problem statement

Sharing and re-using of *Open Data* is well underway

- PSI directive (since 2003)
- European Open Data portal
  https://www.europeandataportal.eu/
- ODINE Open Data Incubator

But "closed data" (e.g. data from connected vehicles, industrial sensors, client/patient data...) is not re-used because of many obstacles (legal, commercial, attitudes...). Data anonymization is difficult and can often be cracked. **No culture of data sharing/trading!**

CONNECT G1 Big Data H2020 project portfolio

42 Projects (35 ongoing, 7 already concluded) + 17 starting in 2018

Main sectors of impact

Two ongoing H2020 projects

Transforming Transport https://transformingtransport.eu/

- Lighthouse project of 47 partners 18.7 MEUR EU funding (plus significant industrial investment) – to kick of a data-driven transformation of the transport/logistics sector

- Several pilots (airport, rail transport, ports, highways...) to develop and test Big Data methods that allow integration and analysis of real transport data, developing transport patterns and exploiting these in decision making

AutoMat http://www.automat-project.eu/

- Big Data market place for vehicle data

- Partners include VW, Renault, Fiat, Here, Atos

- To enable/stimulate sharing/trading of manufacturer-independent vehicle data across sectors for re-use and new business models

- Vehicle fleets as sensor networks

ICT-13

Three different parts:

a) Innovation Actions (2019)

b) Research and Innovation Actions (2018)

c) One Coordination and Support Action

ICT-13a (IA): the challenge

Fostering the European Data Economy by setting up platforms for sharing/trading industrial and/or personal data to create new business opportunities.

ICT-13a (IA)

Innovation Actions for setting up and operating platforms for secure and controlled sharing of "closed data" (proprietary and/or personal data).

The actions should address the necessary technical, organisational, legal and commercial aspects of data sharing/brokerage/trading, and build on existing computing platforms. Proposals shall address one or both of the following sub-topics:

ICT-13a (IA)

- *Personal data platforms* shall ensure respect of prevailing legislation and allow data subjects and data owners to remain in control of their data and its subsequent use. Solutions should preserve utility for data analysis and allow for the management of privacy / utility trade-offs, metadata privacy, including query privacy. Solutions should also develop privacy metrics that are easy to understand for data subjects and contribute to the economic value of data by allowing privacy-preserving integration of independently developed data sources.

- *Industrial data platforms* shall enable and facilitate trusted and secure sharing and trading of proprietary/commercial data assets with automated and robust controls on compliance (including automated contracting) of legal rights and fair remuneration of data owners.

ICT-13a (IA)

- Set-up and operations
- Adoption of privacy preserving technologies
- Trusted and secure sharing
- Automated contracting
- Sustainable business models

ICT-13a: additional information

- See a Commission paper on "Personal information management services – Current state of service offers and challenges" analysing feedback from public consultation

- See "Industrial Data Platforms – Key Enablers of Industry Digitization", IDC study report 28/7/2016

ICT-13b (RIA): the challenge

- Provide secure, privacy respecting operations for industrial and personal data platforms.
- Make data providers confident in participating in data sharing mechanism
- Provide citizens privacy safeguards
- Make industrial/personal data platform GDPR compliant

ICT-13b (RIA): the challenge

Not a new topic, it follows the footprints of ICT-18 of the H2020-ICT 2016-2017 Work Programme

ICT-18 Funded Projects:

SPECIAL: data sticky policies and queryable encryption

SODA: multi-party computation (MPC) techniques.

MyHealth-MyData: distributed, peer-to-peer architecture, based on Blockchain.

e-Sides: a CSA researching the ethical and societal implications of data and its use

ICT-13b (RIA)

- Research and Innovation Actions <u>to advance the state of the art</u> in the scalability and computational efficiency of methods for securing desired levels of privacy of personal data and/or confidentiality of commercial data, particularly when they are combined from multiple owners.

- Proposals shall also analyse and address, as appropriate, privacy/confidentiality threat models and/or incentive models for the sharing of data assets.

ICT-13b (RIA): Impact

- Personal data protection is improved, and compliance with the General Data Protection Regulation (and other relevant legislation) is made easier for economic operators

- Citizens' trust is improved as privacy-aware transparency and control features are increasingly streamlined across data platforms and Big Data applications.

- Better value-creation from personal and proprietary/industrial data.

- 20% annual increase in the number of data provider organisations in the personal and industrial data platforms

ICT-13b (RIA): Impact (...continued)

- 30% annual increase in the number of data user/buyer organisations using industrial data platforms

- 50% annual increase in number of users (data subjects) in the personal data platforms

- 20% annual increase in volume of business (turnover) channelled through the platforms

ICT-13b (RIA): Requirements

- Focused to be an enabler of trusted, secure data markets. ICT-13a proposals will build on such technologies.

- Computationally efficient

- Capable of handling very large volumes of data

- Manages composition of independent data sets about the same subjects

- Trade-offs/customization are explained in a way that can be understood by a data subject or a data controller who are not scientists

- Addresses the operational constraints of likely application domains (telecom, geospatial, IoT, …)

The Call for proposals

ICT-13 a)

- The Call will open on 16/10/2018
- The Call will close on **28/03/2019** at 17:00 CET
- **Budget: 48 M€**
- Proposals expected average size: 4-6 M€

ICT-13 b) and c)

- The Call opened on 31/10/2017
- The Call will close on **17/04/2018** at 17:00 CET
- Budget:
  - **ICT-13b (RIA) 10 M€**
  - **ICT-13c (CSA) 3 M€**

Article 30.3 (Commission right to object to transfers or licensing) will be added to all Grant Agreements

Public-Private Partnership (PPP) Big Data Value

Big Data Value Association (BDVA) updated Strategic Research and Innovation Agenda, version 4

http://www.bdva.eu