European Commission

Digital Single Market

Commission strengthens trust and gives a boost to the data economy

Building the European Data Economy

The digital revolution is built on data

Data is a new type of economic asset, which is rapidly becoming vital in the global economy. Most economic activity will depend on data within a few years → This provides great opportunities for all sectors, including:

- health
- food security
- resource efficiency
- energy management
- intelligent transport
- smart cities
- smart agriculture
- civil protection

Access to large and diverse datasets is a prerequisite for innovation.

Agriculture
weather or soil data used by farmers

Energy
data from smart meters for the development of infrastructure: patterns of consumption show where energy demand is likely to grow/fall

Manufacturing
sensor data used to predict maintenance needs

Geo-spatial data
data from satellites, e.g. earth observation and meteorological data

The EU wants to make data available to businesses and citizens.

The datasets resulting from technologies such as the Internet of Things are large and complex → It is currently too difficult to process such data with the traditional data management tools and methods → New technological advances on data analytics, processing and storage will make this possible.

The potential of the data-driven economy

- Big data is an essential resource for economic growth, job creation and societal progress.
- The value of the EU data economy was €272 billion in 2015, close to 1.9% of GDP.
- With adapted policy and legal solutions, its value could more than double by 2020.

The way forward

The Commission is entering an intense dialogue with Member States and other stakeholders to develop the most appropriate actions to reap the full potential of the European data economy. It also proposes to interested Member States to explore data related issues in a real-life cross-border situation, building on several ongoing connected cars projects.

Public consultation on building European data Economy: https://ec.europa.eu/digital-single-market/news-redirect/52039
Public consultation on Liability for Defective Products: http://ec.europa.eu/growth/tools-databases/newsroom/cf/itemdetail.cfm?item_id=9048

Addressing current barriers

- **Unjustified restrictions**: Increasing number of barriers to the movement of data around the EU.
- **Legal uncertainties**: Limited access to data generated by new technologies because there are no clear rules for sharing this data.

1. Free Flow of Data

Due to digitisation, more and more goods and services depend on the availability and innovative use of data.

PROBLEM

Legal or administrative restrictions on data location may prevent the private and public sectors from having a good choice of data services.

EXAMPLE:

It is difficult for a small provider of digital invoicing and accountancy services to offer competitive prices in several markets within the EU, because it would have to arrange data storage or processing capacity in every Member State.

SOLUTION:

Removing data localisation restrictions except if they are required for national security and similar objectives. Data does not have to be stored in one specific Member State. Free flow of data is enshrined in the General Data Protection Regulation. All existing rights and obligations on data protection and privacy will be applied.

2. Data access and transfer

PROBLEM

Companies tend to analyse data only in-house, data sharing with other stakeholders remains uncommon.

There are no comprehensive policy frameworks for the economic utilisation, re-use and tradability of non-personal and anonymised data generated by machines and sensors.

EXAMPLE:

Farming machines need 90 minutes to map yields from one hectare.

A specialized provider, who operates drones and uses data from farms, can do the same in 10 minutes.

SOLUTION:

Improve access to non-personal/ anonymous machine-generated data.

Facilitate and incentivise data sharing and re-use.

Protect investments and assets.

Minimise lock-in efects.

3. Legal responsibility for data based products

PROBLEM

Due to many market players providing different elements for very complex systems like the Internet of Things, it is difficult to identify who is responsible.

This legal uncertainty affects innovation and uptake of data-driven products and services.

EXAMPLE:

In the case of a fire, a smart home security system should contact the fire service and the owner, unlock doors and switch on security lights. But if it fails, it can be difficult to establish the part of the system which did not work and who may be liable for any damage.

SOLUTION:

Defining responsibilities according to how a risk is generated or how it is managed (a so-called risk-generating or risk-management approach); considering voluntary or mandatory insurance schemes.

4. Data portability, interoperability and standards

PROBLEM

Personal data portability is a right. Non-personal data portability can be complicated or costly in practice, including for data stored in cloud services.

EXAMPLE:

A business using cloud services cannot easily extract or port their data (e.g. to switch providers) because it might be too expensive or technically complicated.

SOLUTION:

Reducing switching costs to stimulate an innovation-friendly environment; developing rights to data portability; improving technical interoperability and data standards.