Article – Big data: definition, benefits, challenges (infographics)

Opportunities created by the use big data

Big data presents great opportunities in a number of areas.

Industry

Big data enables companies to innovate, either through better analysing people's needs and wants or by offering entirely new products. While personal data is central for the operation of apps and platforms that have become an important part of our lives and economy, better exploitation of industrial data could bring a new wave of innovation in the EU. Data can also boost productivity and help cut costs, for example by predicting sales or maintenance in smart factories.

Environment

Satellite data can improve research and help the EU reduce greenhouse emissions and help in preventing and responding to natural disasters such as wildfires. Improving production efficiency in ithe ndustry should lower emissions and waste.

Healthcare

The analysis of large clinical data sets – for example: anonymised health records or data entered by patients in apps – can enable better diagnostics,

treatment and development of medicine, while reducing costs.

Agriculture

Farmers can use data from satellites and sensors to better use resources such as water or sunlight and adapt crops to changing circumstances.

Public sector

Data and advanced analytics can increase the efficiency and effectiveness of public services, to improve transparency and offer better-tailored services.

Transportation

Big data collected from GPS and social media can help mitigate traffic jams. Better regulation of traffic flows also contributes to savings in time and fuel and lowers CO_2 emissions.