

# Advanced Technology Watch - Technology Focus on the Internet of Things

The Internet of Things (IoT) refers to a network of uniquely identifiable endpoints that autonomously connect bidirectionally using Internet Protocol (IP) connectivity. However, in a broader sense, IoT refers to "an ecosystem in which applications and services are driven by data collected from devices that sense and interface with the physical world".

This ecosystem establishes end-to-end solutions that leverage those connected devices and the data they generate. This data is then used to obtain new insights, transform and automate systems and processes, provide new products and services, and bring a host of benefits to users, organisations, economies and societies.

The European Commission committed to investing nearly

# €500 million

between **2014** and **2020** in IoT development as part of the Horizon 2020 programme.

# The European Commission has supported the advancement of IoT

## Communication

"Internet of Things: An Action Plan for Europe"

## **Alliance**

Alliance for Internet of Things Innovation (AIoTI)



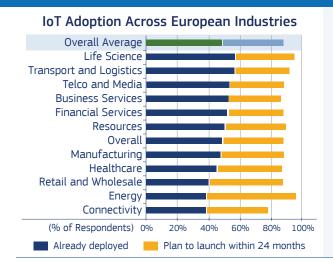
## Initiative

IoT European Platform Initiative (IoT-EPI)

# Staff working document

"Advancing The Internet of Things in Europe"

IoT is steadily becoming a core part of the digitalisation strategy of European organisations across industries



#### The majority of European organisations have deployed IoT in their business, or are planning on doing so **IoT Deployment Status IoT Investment Plans** No current plans to No plans to do Plan to deploy (11.1%) so (23.3%) launch IoT project or extend Have deployed an existing Plan to do an IoT project one within so within (49.4%) the next 24 months (39.4%) 24 months

No plans to do/deploy Planned within 24 months Deployed

(76.7%)

IoT will grow at a compound annual growth rate (CAGR) of 12%, from approximately €131 bn (2019) to approximately €230 bn (2024)

### Reasons for Investing in IoT Projects



Investing in **IoT** has favourable and tangible returns for the organisation



## Further development of key technologies enables IoT solutions to be deployed more rapidly, cost-effectively and at lower risk













Modules and Sensors

Connectivity

**Cloud Computing** 

**Edge Computing** 

IoT Platforms

**Analytics** 

IoT accelerates initiatives on environmental sustainability and social good, and it has an important role in battling the effects of the COVID-19 pandemic







## **Environmental Sustainability**

- Waste and water management
- Circular economy
- Food traceability
- Electric Vehicle Charging

### Social Good

- Life on Land: Connected Conservation
- Social Justice
- Water and sanitation
- Clean air

## COVID-19

- Body temperature monitoring
- · Securing safe distances in the workplace
- Adding intelligence to sensorised medical equipment
- Increase automation and reduce costs to cope with reduced staffing
- IoT-based remote health monitoring

## About the Advanced Technologies for Industry (ATI) project

The ATI project – funded by the European Commission – supports the implementation of Europe's new growth strategy with a systematic monitoring of **technological trends** and reliable, **up-to-date data** on advanced technologies.



The Advanced Technology Watch Reports explore the futuristic, upcoming technologies that are on the horizon of technology development today and that are characterised by high speed of evolution and a significative disruptive potential.



For more information, read the full Advanced Technology Watch Report on the Internet of Things here: https://ati.ec.europa.eu/reports/technology-watch/technology-focus-iot