European Commission

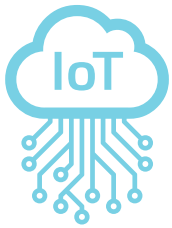
#DSM

Digital Single Market

INTERNET OF THINGS

WHAT IS THE INTERNET OF THINGS?

The Internet of Things (IoT) is a network of interconnected devices or systems ('things') that can be remotely controlled over the Internet. These devices collect and exchange data that can be analysed and used for monitoring, maintenance and improvement of processes, with the goal of delivering products and services to consumers.



WHY IS IOT RELEVANT?

IoT will allow the interconnection of objects and people through communication networks, enabling them to report about their status or the surrounding environment. It represents the next step towards the digitisation of our society and economy, and will benefit European citizens and businesses in the years to come.

WHAT IS THE EU DOING IN THE AREA OF IOT?

RESEARCH AND DEVELOPMENT AND INNOVATION

The European Commission is currently co-funding five IoT Large-scale Pilot projects under the Horizon 2020 Research and Innovation programme, with a financial contribution of €100 million.

A further investment of €120 million will support the new large-scale pilots starting from the last quarter of 2019, in the areas of healthcare, energy and agriculture. The Commission will continue to invest in these IoT systems underpinning the field of artificial intelligence.

POLICY SOLUTIONS: LOOKING FORWARD

IoT applications need to be trusted, accessible and usable. Therefore, the European Commission continues to work in the areas of standardisation and certification, especially on cybersecurity, as well as on the regulatory challenges that are necessary to deploy IoT in a safe and secure manner.

Foundational technological research and development has also been funded to ensure that:

Future IoT solutions can interoperate and share data openly	IoT security and privacy is included by design	Europe can supply open platforms and standards-based solutions for IoT

WHAT ARE THE BENEFITS OF THE LARGE-SCALE PILOTS FOR EUROPEAN CITIZENS AND INDUSTRY?

ACTIVAGE PROJECT

SMART LIVING ENVIRONMENTS TO SUPPORT THE ELDERLY

1. Improves the quality of life for the elderly, accommodating active and healthy ageing solutions.
2. Ensures sustainability of European social and healthcare systems by enabling new business models that maximise the value of technology, open data, open systems and open services.
3. Creates and fosters a culture of social participation by engaging local stakeholders, including older people and their families.

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SMART FARMING AND FOOD SECURITY

1. Optimises farming practices, resulting in more food with less input by increasing agricultural productivity and reducing food waste.
2. Contributes to resource and energy efficiency, sustainable infrastructure and better quality of life.
3. Increases food safety and quality by improving nutrition with the help of sustainable agriculture.

WEARABLES FOR SMART ECOSYSTEMS

1. Deploys IoT technologies that help make open-air cultural and sporting events more secure, safe and enjoyable.
2. Benefits all stakeholders in the promotion and preservation of European culture while complying with EU and national regulations, such as data protection.
3. Supports the creation of new business applications and services by providing open data, developer tools and business models.

REFERENCE ZONES IN EU CITIES

1. Delivers a high quality of life for smart cities and communities, while implementing standards of efficiency, security and sustainability.
2. Opens a global IoT marketplace where cities and businesses create and trade common digital services to improve citizens' wellbeing and grow local economies in Europe and beyond.
3. Benefits 19 cities with more effective standards-based innovation and procurement, bringing together 33 partners from 9 European countries and 1 from South Korea.

AUTONOMOUS VEHICLES IN A CONNECTED ENVIRONMENT

1. Develops a range of driving services by employing IoT's potential to improve automated driving.
2. Speeds up the transformation from connected vehicles to highly and fully automated vehicles.
3. Increases safety, providing more comfort and creating business opportunities for mobility services.