



Internet of Things

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About Watify

The Watify initiative is an awareness-raising campaign, funded by the European Commission, to support EU efforts to stimulate the modernisation of Europe's industry by:

- Disseminating information to boost the technological transformation of European SMEs
- Supporting Europe's regions to translate their smart specialisation strategies in the areas of digitisation and KETs into concrete projects

1. THE OPPORTUNITIES & CHALLENGES OF INTERNET OF THINGS FOR SMES

Internet of Things (IoT) refers to the inter-connectivity of all physical objects (e.g. wearable devices, medical devices, vehicles, machines, household objects, consumer goods, infrastructure assets, etc.) bridged with the cyber world. The components of IoT include wireless communication technologies (RFID, etc), internet connectivity, sensors, actuators, machine learning, embedded software and intelligent systems, Big data and real-time analytics, and ubiquitous and cloud computing.

The limitless applications of IoT offers business opportunities and benefits to any industry sector, particularly in manufacturing, transport, consumer goods, energy, agriculture and healthcare. Business benefits and opportunities range from service innovation, optimised efficiency, enhanced product design, decreased maintenance and operating costs, improved customer experience, deeper business and consumer insights, and traceability and real-time tracking in supply chains and logistics.

In smart factories, IoT is characterised by machine-to-machine automation or cyber-physical production systems – combined with sensors, actuators and embedded computing. Machines will be able to automate decisions and even identify and communicate impending equipment failure. IoT in smart agriculture and food production enables producers to monitor temperature, humidity, soil moisture and solar radiation and to use the vast amounts of data collected to enhance crop management. Connected or IoT-enabled products will allow companies to monitor product usage, which in turn can provide input for the smart design/engineering and smart sales and marketing. Connected products or smart packaging will lead to traceability and real-time tracking in smart supply chains and logistics. These smart products will be delivered to smart homes and buildings located in smart cities. As IoT spreads – with tens of billions of objects and devices connected in the next decade – it will give rise to ‘smart anything, everywhere’. Wearable (and possible implantable) connected devices will take us from IoT to ‘Internet of People’.

Despite the business opportunities and the inevitable spread of IoT, SMEs have been slow to take up IoT solutions and applications. This is partly due to their lack of awareness and required know-how or skills, the risky investment needs, and the complexity of integrating IoT systems and big data into products and services.

Overall barriers facing the wide-spread deployment of IoT concern cybersecurity, internet connectivity infrastructure needs, the diversity of standards on the market and the lack of interoperability between systems.

2. THE NEED FOR INTER-REGIONAL COOPERATION

The objective of the matchmaking event is to facilitate inter-regional / cross-border cooperation between regional public and private sector actors in the development of joint initiatives /partnerships or joint demonstration / pilot projects in IoT – matching S3 priorities and exploiting identified synergies and complementary resources and strengths.

Inter-regional or cross-border cooperation can help to exploit complementarities/synergies (i.e. different value chain positions, technologies, etc.), work towards interoperability, pool resources and infrastructures across Europe, address non-technological issues (e.g. standards), enlarge the potential user-base and pilot IoT solutions and demonstration cases.