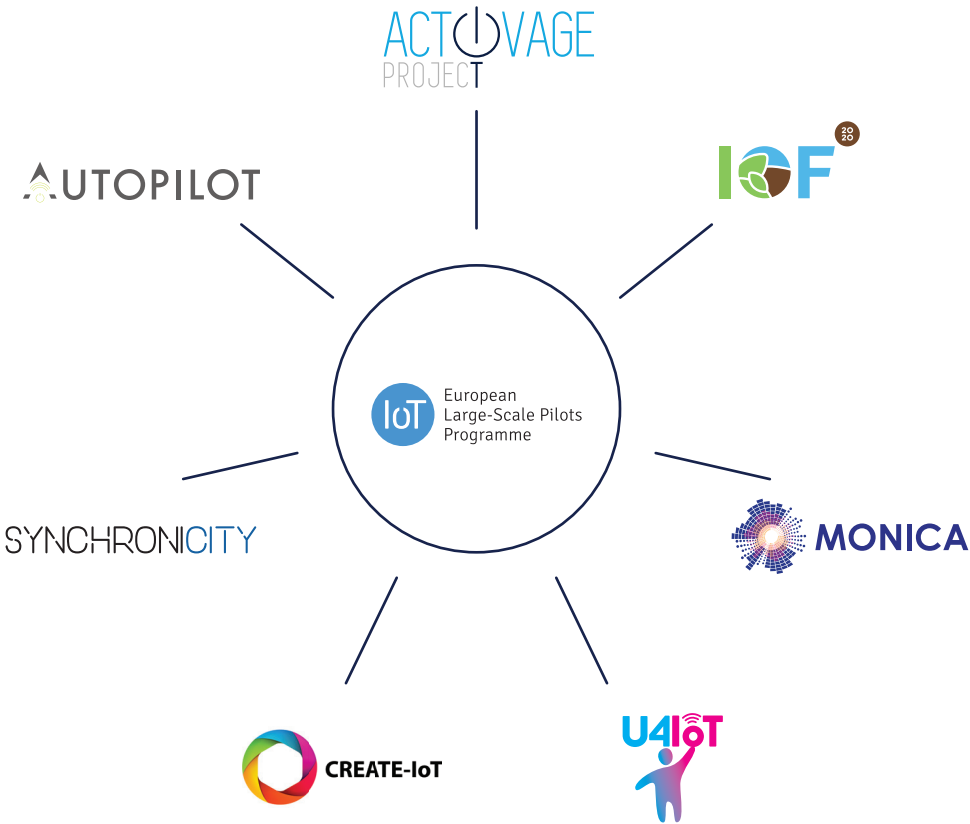
EUROPEAN LARGE-SCALE PILOTS PROGRAMME

IoT European Large-Scale Pilots Programme


ACTIVAGE PROJECT
AUTOPILOT
IOF 2020
IoT European Large-Scale Pilots Programme
SYNCHRONICITY
MONICA
CREATE-IoT
U4IoT

IoT European Large-Scale Pilots

This brochure provides an overview of the IoT European Large-Scale Pilots (LSPs), the overarching goals of the programme, and information about each of the 7 EU-funded projects. The programme was launched in 2016 with the aim to develop, apply and integrate multiple Internet of Things (IoT) solutions in Europe, as close as possible to operational conditions. The key objectives are the development, research and interoperability of advanced technologies in an economically sustainable IoT ecosystem, increasing acceptability by respondingto end-user needs.

Each of the funded projects apply IoT approaches to specific real-life challenges across different use cases, based on European relevance, technology readiness and socio-economic interest in Europe. With a total funding budget of €100M, these LSPs address five different and individual, but interconnected domain areas, from smart living environments for ageing well, to smart farming and food security, wearables for smart ecosystems, reference zones in EU cities and autonomous vehicles in a connected environment. A coordination body ensures the efficient interplay on which the collaborating projects thrive upon, and liaises with relevant initiatives at European Union, Member State and international levels.


ACTIVAGE
AUTOPILOT
IOF2020
European
Large-Scale Pilots
Programme
SYNCHRONICITY
MONICA
CREATE-IOT
U4IOT

ACTIVAGE

Breaking barriers for a sustainability Active and Healthy Ageing through IoT technologies.

IOF2020

Strengthen competiveness of farming and food chains in Europe.

MONICA

Sound and security solutions for large open-air events in the smart city.

U4IOT

Actively engage end-users and citizens to achieve IoT societal acceptance.

CREATE-IOT

Stimulate collaboration between IoT initiatives, by supporting the development and growth of IoT ecosystems based on open technologies and platforms.

SYNCHRONICITY

Creating a global market for IoT-enabled urban services

AUTOPILOT

Unlocking the potential of IoT to take autonomous driving to the next level.


ACTIVAGE
AUTOPILOT
IOF2020
European
Large-Scale Pilots
Programme
SYNCHRONICITY
MONICA
CREATE-IOT
U4IOT

ACTIVAGE

ACTIVAGE is breaking the barriers for a sustainable and large-scale implementation of technologies for active and healthy ageing. It uses IoT to create smart living environments which contribute to the healthcare systems by extending the time elderly live independently, thus acting in response to the demographic shift. ACTIVAGE responds to the needs of caregivers, service providers and public authorities to promote autonomy of older adults.

HIGHLIGHTS

- Integrates thousands of devices;
- Collects and analyses lifestyle information and identifies needs;
- Provides customised solutions while ensuring data privacy and security
- Involves 10,000 participants across nine cities in seven EU countries
- Harnesses the benefits of technologies to improve the quality of life
- Ensures the sustainability of social and health systems in Europe

ACTIVAGE is building the first European open IoT ecosystem enabling a wide range of Active & Healthy Ageing solutions and services


ACTIVAGE
AUTOPILOT
IOF2020
European
Large-Scale Pilots
Programme
SYNCHRONICITY
MONICA
CREATE-IOT
U4IOT

IoF2020

IoF2020 aims to consolidate Europe's leading position in IoT technology applied to the agri-food sector, maintain its competitiveness and ultimately increase the sustainability by addressing environmental and social challenges. With an open ecosystem and collaboration space - consisting of farmers, food companies, policy-makers, technology providers, research institutes and end-users - the project relies on existing standards, as well as security and privacy platforms.

HIGHLIGHTS

- Strengthens the European farming and food chains through the Internet of Things technology;
- Increases the economic viability and market share of developed technologies;
- Focuses on user acceptability, stakeholder engagement and sustainable business models;
- Demonstrates the value of IoT solutions for the European food and farming sectors in 19 use-cases spread throughout Europe;
- Is organised around 5 agriculture areas: dairy, meat, arable crops, fruits and vegetables.

Data driving farming and supply for more sustainable food production reaching higher competitiveness.


ACTIVAGE
AUTOPILOT
IOF2020
European
Large-Scale Pilots
Programme
SYNCHRONICITY
MONICA
CREATE-IOT
U4IOT

MONICA

MONICA is a large-scale demonstration of how cities can use existing and new IoT solutions to meet sound, noise and security challenges at big open-air events, which attract and affect many people. To support the applications, a cloud-based platform connects devices while control systems monitor the data collected to analyse and handle emerging incidents.To ensure data security and trust, the solutions are built on Privacy by Design principles.

HIGHLIGHTS

- Deploys several sound, security and user experience applications at large events;
- Is implemented in six European cities, involving more than 100,000 application users;
- Uses IoT-enabled devices such as smart wristbands, video cameras, loudspeakers, smart glasses, airships and smartphones;
- Centralises the involvement of multiple stakeholders in the design, deployment and evaluation of the applications;
- Makes several innovation tools available in terms of open data, development kits, entrepreneurship packages and business models.

Sound, security and crowd solutions for large, open-air events taking place in the smart city


ACTIVAGE
AUTOPILOT
IOF2020
European
Large-Scale Pilots
Programme
SYNCHRONICITY
MONICA
CREATE-IOT
U4IOT

U4IoT

End-user and societal acceptance is critical to the success of the IoT large-scale pilots. Thus, U4IoT provides support with end-user engagement methodologies, including co-creative workshops, crowdsourcing tools, expert pools and personal data protection measures. Activities consist of supporting communication, sharing and dissemination of knowledge. It will enable a citizen-driven process by combining multidisciplinary expertise and complementary mechanisms from European state-of-the-art technologies.

- Actively engages end-users and citizens in the large-scale pilots' design, deployment and assessment;
- Involves 9 partners from 5 European countries;
- Combines complementary expertise encompassing responsible research and innovation, personal data protection, social and economic sciences, and Living Labs;
- Uses an online portal for interactive knowledge gathering, exchange and end-user feedback;
- Analyses societal, ethical and ecological issues and adoption barriers to develop strategies boosting educational needs to further enhance IoT deployment in Europe.

U4IoT strives to help LSPs to understand, reach out to and engage users in a co-creative, impactful and secured way.


ACTIVAGE
AUTOPILOT
IOF2020
European
Large-Scale Pilots
Programme
SYNCHRONICITY
MONICA
CREATE-IOT
U4IOT

CREATE-IoT

The aim of CREATE-IoT is to stimulate exchange between IoT initiatives, support the development and growth of IoT ecosystems based on open technologies and platforms, and foster the uptake in Member States. The project enhances cross fertilisation through common interests of the various application domains and use cases of the Large-Scale Pilots (LSPs), which requires alignment on strategic, legal, methodological and technical terms.

HIGHLIGHTS

- Accelerates the development and deployment of IoT technologies and applications;
- Coordinates and supports upcoming projects in sustaining their developed ecosystems;
- Maps the architecture and addresses interoperability and standard approaches at technical and semantic levels;
- Brings together 18 partners from 10 European countries;
- Develops common methodologies for design, testing and validation of impact measurement through a set of LSP specific and Programme specific KPIs (key performance indicators);
- Builds strong connections with Member States' initiatives and will transfer learning points to the broader IoT policy framework.

CREATE-IoT builds strong connection between IoT initiatives to foster the take up of IoT in Europe and support the growth of IoT ecosystems based on open technologies and platforms.


ACTIVAGE
AUTOPILOT
IOF2020
European
Large-Scale Pilots
Programme
SYNCHRONICITY
MONICA
CREATE-IOT
U4IOT

SYNCHRONICITY

The aim of SynchroniCity is to establish a global IoT marketplace where cities and businesses create and trade common digital services to improve the lives of citizens and grow local economies in Europe and beyond. The project attempts to lower the barriers for participation on the established digital single market/digital infrastructure to harness the potential of technologies, enabling sustainable and healthy lifestyles and at the same time respecting privacy.

HIGHLIGHTS

- Builds upon a mature European knowledge base, derived from numerous initiatives and partners with leading roles in standardization activities;
- Will deliver a harmonized ecosystem for IoT-enabled smart city solutions, where IoT device manufacturers, system integrators and solution providers can innovate and openly compete;
- Uses interoperability points to create momentum for a strong European presence in a global digital market of IoT enabled urban services;
- Connects 39 partners from 13 countries over 3 continents.

To deliver quality of life in tomorrow's cities & communities, while being efficient, secure and sustainable, we must use digital technologies in new ways. For this reason, we created SynchroniCity.


ACTIVAGE
AUTOPILOT
IOF2020
European
Large-Scale Pilots
Programme
SYNCHRONICITY
MONICA
CREATE-IOT
U4IOT

AUTOPILOT

There is little doubt that autonomous vehicles will be part of the IoT revolution. AUTOPILOT's goal is to develop a range of driving services, which take advantage of the potential of IoT to improve automated driving. By combining Big Data for mobility and technologies from the automotive world, vehicles become moving objects in a connected environment.

- Is expected to increase safety, provide more comfort and create new business opportunities for mobility services;
- Will accommodate data from vehicles, road infrastructure and connected IoT objects in a cloud platform;
- Pays particular attention to safety-critical aspects of automated driving;
- Will be tested in real conditions at large-scale pilot sites in Finland, France, Italy, Korea, the Netherlands and Spain;
- Technological test will allow multi-criteria evaluations (technical, user, business, legal) of the impact of IoT on autonomous driving.

AUTOPILOT brings together relevant knowledge and technology from the automotive and the Internet of Things (IoT) domains in order to develop an IoT architecture and an IoT connected vehicle platform.

THE INTERNET OF THINGS

The whole is greater than the sum of its parts. With an expected European IoT market of €200B by 2020 encompassing 50 Billion connected devices, the Internet of Things will reshape our environment with great economic and social opportunities.

ACTIVAGE	IOF2020	MONICA
49 PARTNERS/CONSORTIUM	73 PARTNERS/CONSORTIUM	29 PARTNERS/CONSORTIUM
9 COUNTRIES	14 COUNTRIES	9 COUNTRIES
9 USE-CASES	19 USE-CASES	6 USE-CASES
15 SMES	42 SMES	12 SMES
20.000.000 EU CONTRIBUTION	30.000.000 EU CONTRIBUTION	15.000.000 EU CONTRIBUTION
'17-'20 DURATION	'17-'20 DURATION	'17-'20 DURATION

U4IOT

8
PARTNERS/CONSORTIUM

5
COUNTRIES

4
USE-CASES

5
SMES

998.625
EU CONTRIBUTION

'17-'19
DURATION

CREATE-IOT

18
PARTNERS/CONSORTIUM

10
COUNTRIES

8
USE-CASES

8
SMES

300.000
EU CONTRIBUTION

'17-'19
DURATION

SYNCHRONICITY

38
PARTNERS/CONSORTIUM

13
COUNTRIES

3
USE-CASES

8
SMES

15.000.000
EU CONTRIBUTION

'17-'20
DURATION

AUTOPILOT

44
PARTNERS/CONSORTIUM

15
COUNTRIES

5
USE-CASES

0
SMES

19.924.984
EU CONTRIBUTION

'17-'19
DURATION

FOR MORE INFO,
PLEASE VISIT

ACTIVAGE
www.activageproject.eu

IOF2020
www.iof2020.eu

MONICA
www.monica-project.eu

U4IOT
www.u4iot.eu

CREATE-IOT
www.european-iot-pilots.eu/project/create-iot

SYNCHRONICITY
www.synchronicity-iot.eu

AUTOPILOT
www.autopilot-project.eu

The IoT European Large Pilots have received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 731884 (IoF2020), No 732929 (CREATE-IoT), No 732078 (u4IoT), No 732240 (SynchroniCity), No 732350 (MONICA), No 731993 (AUTOPILOT), No 732679 (ACTIVAGE). The content of this brochure is maintained by Schuttelaar & Partners. The views expressed in this brochure reflect the views of the editors. The European Commission is not liable for its content and the use that may be made of the information contained herein.