

IoT European Research Cluster Partners

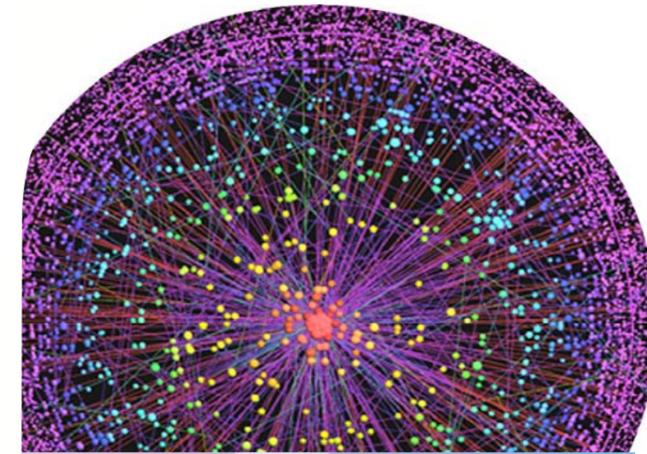
CASAGRAS2		IoT-A	
	IoT-I		INTERPID
ELLIOT		SPRINT	
	NEFFICS		IoTWork
AMI-4-SME		ASPIRE	
	CASAGRAS		BRIDGE
CASCADAS		CE-RFID	
	CoBIs		CONFIDENCE
CuteLoop		ETP EPoSS	
	DACAR		DiYSE
Dynamite		EU-IFM	
	EURIDICE		EUWB
FIA/RWI		GRIFS	
	HYDRA		IMS2020
INDISPUTABLE KEY		iSURF	
	LEAPFROG		PEARS
PrimeLife		PRIME	
	PROMISE		RACE networkRFID
SMART		SMMART	
	StoLPaN		SToP
TraSer		WALTER	
	SPIKE		SmartSantander
CONET		eDIANA	
	Future Internet		PPP
ARTEMIS		ENIAC	



IERC
European Research Cluster
on the Internet of Things

The European Research Cluster

**COORDINATING AND BUILDING
A BROADLY BASED CONSENSUS
ON THE WAYS TO REALISE THE
INTERNET OF THINGS IN
EUROPE.**



www.internet-of-things-research.eu

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IERC



COORDINATING AND BUILDING A BROADLY BASED CONSENSUS ON THE WAYS TO REALISE THE INTERNET OF THINGS (IoT) VISION IN EUROPE.

OBJECTIVES

- Identifying IoT technology research challenges at the European level in the view of global development
- Linking its activities with the innovation and policy activities on European level and with the European Member States
- Coordinate its activities with the activities of the IoT Expert Group
- Define and promote a commonly accepted vision of the IoT
- Coordination of the strategic research agenda at the European level in the view of global development
- Be concerned about the societal implications of IoT

Sustaining Europe's leading position in the future Internet of Things within a global context.



IoT European Research Cluster

The aim of European Research Cluster on the Internet of Things is to address the large potential for IoT-based capabilities in Europe and to coordinate the convergence of ongoing activities.

European Dimension

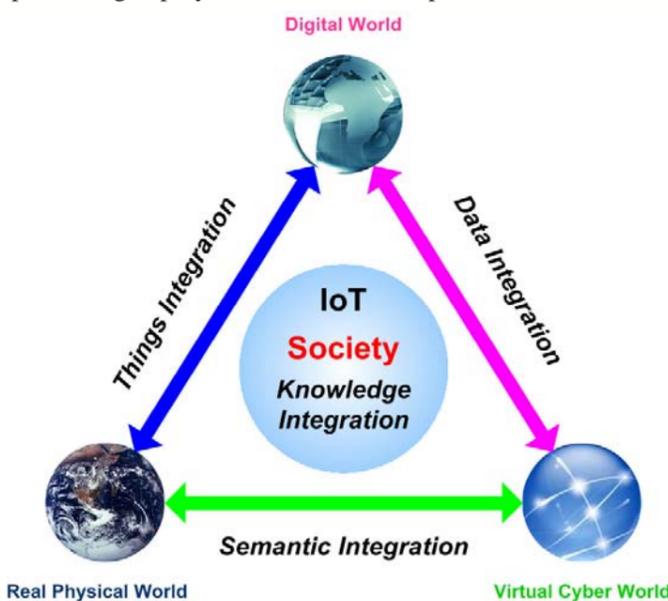
IoT has the potential to enhance Europe's competitiveness and is an important driver for the development of an information based economy and society. A wide range of research and application projects in Europe have been set up in different application fields. Communication between these projects is an essential requirement for a competitive industry and for a secure, safe and privacy preserving deployment of IoT in Europe.

European Dimension

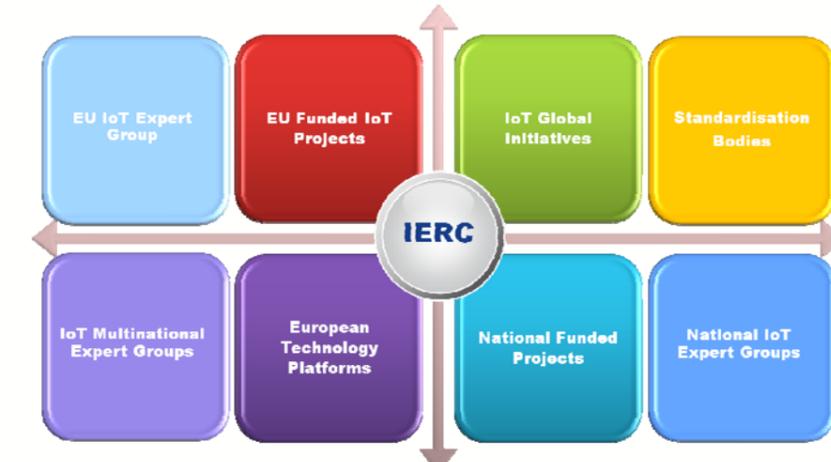
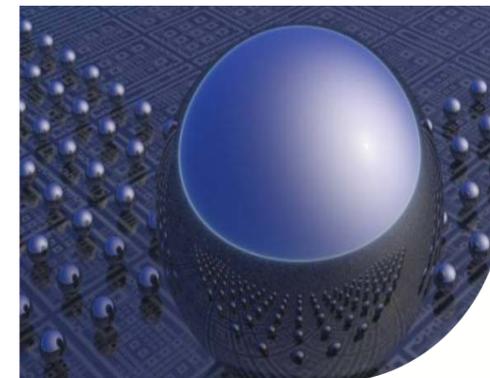
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Global Dimension

IERC will facilitate the knowledge sharing at the global level and will encourage and exchange best practice and new business models that are emerging in different parts of the world. In this way, measures accompanying research and innovation efforts are considered to assess the impact of the Internet of Things at global and industrial level, as well as at the organisational level.



Connecting:



INTERNET OF THINGS

Internet of Things (IoT) is an integrated part of Future Internet and could be defined as a dynamic global network infrastructure with self configuring capabilities based on standard and interoperable communication protocols where physical and virtual "things" have identities, physical attributes, and virtual personalities and use intelligent interfaces, and are seamlessly integrated into the information network.

In the IoT, "things" are expected to become active participants in business, information and social processes where they are enabled to interact and communicate among themselves and with the environment by exchanging data and information "sensed" about the environment, while reacting autonomously to the "real/physical world" events and influencing it by running processes that trigger actions and create services with or without direct human intervention.

"The meaning of things lies not in the things themselves, but in our attitude towards them".

Antoine de Saint-Exupery

Interfaces in the form of services facilitate interactions with these "smart things" over the Internet, query and change their state and any information associated with them, taking into account security and privacy issues.

The Internet of Things will create a dynamic network of billions or trillions of wireless identifiable "things" communicating with one another and integrating the developments from concepts like Pervasive Computing, Ubiquitous Computing and Ambient Intelligence.

Internet of Things hosts the vision of ubiquitous computing and ambient intelligence enhancing them by requiring a full communication and a complete computing capability among things and integrating the elements of continuous communication, identification and interaction. The Internet of Things fuses the digital world and the physical world by bringing different concepts and technical components together: pervasive networks, miniaturization of devices, mobile communication, and new models for business processes.

The Internet of Things allows people and things to be connected Anytime, Anyplace, with Anything and Anyone, ideally using Any network and Any service. This implies addressing elements such as Convergence, Content, Collections (Repositories), Computing, Communication, and Connectivity in the context where there is seamless interconnection between people and things and/or between things and things so the A and C elements are present and addressed.



Identifying IoT technology research challenges at the European level in the view of global development