IoT.est aims to create an effective and dynamic service creation environment and to accelerate development and deployment of new IoT enabled business services. Solution for the following problems will be investigated.

1. Automated composition of business services based on common IoT service and test components;
2. Self-management capable of automated configuration and testing of services for “things”;
3. Abstraction of the heterogeneity of underlying technologies to ensure interoperability.

IoT.est focuses on providing means and tools to define IoT services that exploit data across domain boundaries and facilitate run-time monitoring that enables autonomous service adaption to environment, context and network changes.

**Project Objectives**

**Key Issues**

- **Semantic Description**: to model IoT enabled business services and IoT resources.; to support a knowledge based approach for service creation, provision and testing.

- **IoT service composition environment**: to support IoT based business service composition with re-usable components for data acquisition and distribution, pattern recognition, context interpretation, human behavior recognition, decision support, and action control.

- **Mapping to Heterogeneous Platforms and Large Scale Deployment**: to enable self-configuration and self-optimisation for automated service deployment.

- **Automated Generation of Tests**: to provide mechanisms to test IoT services in the service provider’s infrastructure, before deployment.

- **Context-aware Service Adaptation**: to provide automated mechanisms and methods for services adaptation on configuration, behaviour, presentations with run-time monitoring, management of events and changes in the service environment.

**Business Players in IoT services**

- **Website**: [http://ict-iotest.eu](http://ict-iotest.eu)
- **Twitter**: IOTest_news
- **Duration**: October 2011 - October 2014
- **Contact**: Prof. Klaus Moessner (K.Moessner@surrey.ac.uk, or via the web site)

**Work Plan**

**WP1: Management**

- **WP2: Requirements Analysis and Architecture for IoT Services**
- **WP3: Re-usable Components and Semantic Modeling**
- **WP4: Goal-oriented IoT Service Composition and Testing**
- **WP5: Automated IoT Service Provisioning and Adaptation**
- **WP6: Proof of Concept**

**The Consortium**