

FESTIVAL Project

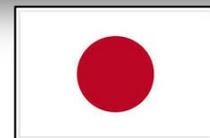
*Federated interoperable Smart ICT services
development And testing platform*

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October 6th 2016



This project has received funding from the European Union's Horizon 2020 Programme for research, technological development and demonstration under grant agreement 643275, and from the Japanese National Institute of Information and Communication Technology



- Expectation

- Realize Smarter City

- Various application possibilities

- Issues

- Business model

- Sustainability

- Citizen Engagement

- Are Citizen's problems properly solved?
- Are privacy issues properly handled?

BigBerry



<https://www.youtube.com/watch?v=v7y5-YzUHAY>

Placemeter



<https://vimeo.com/69091237>

Smart City development and testing platform is required

EU-JP Collaborative Project: FESTIVAL



construction of Smart ICT experiment platform &
field trials of Smart ICT applications

Experimentation

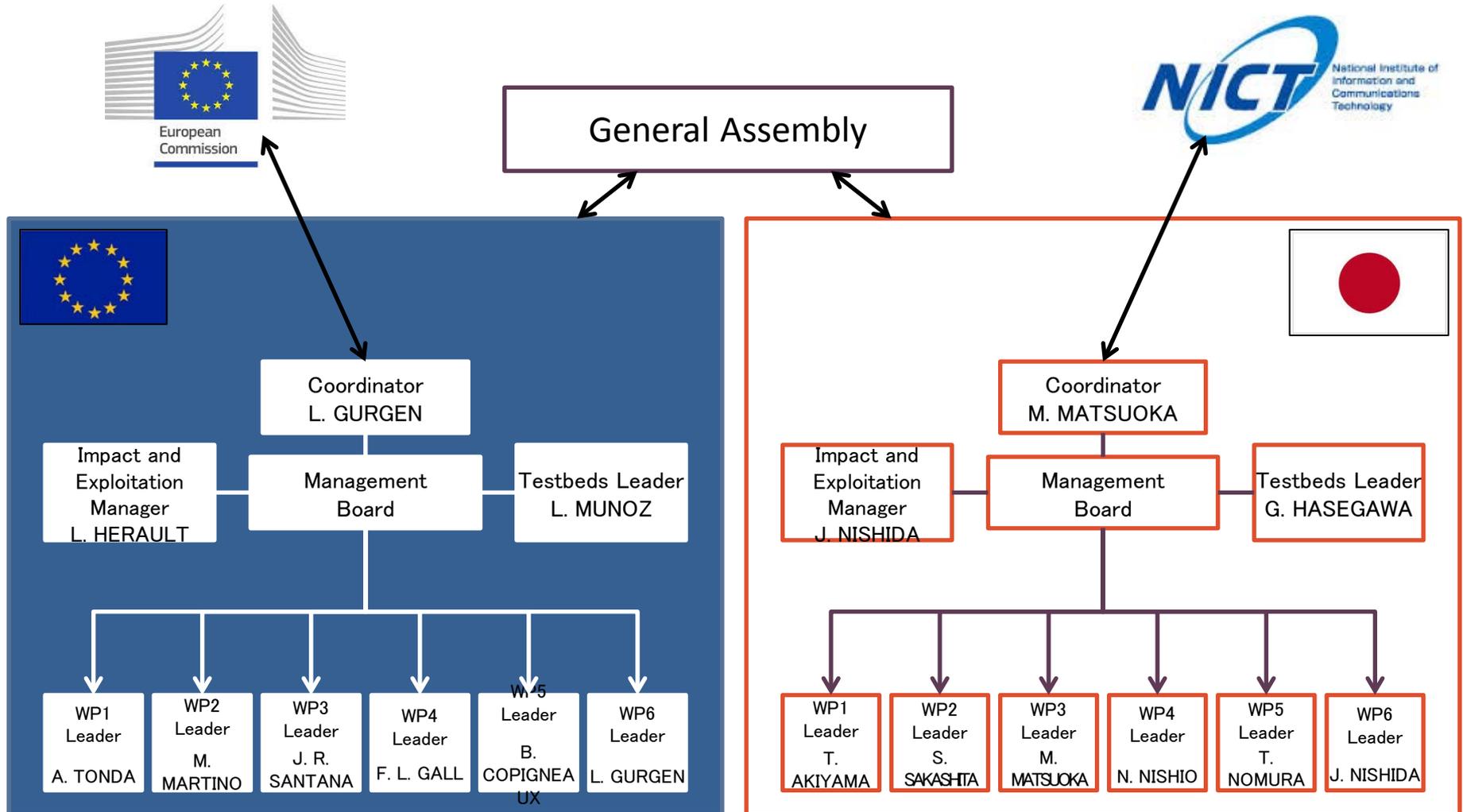
FEderated interoperable
Smar**T** ICT services de**V**elopment
And testing p**L**atform

A blurred photograph of a crowd of people walking through a modern, brightly lit building with large glass windows. The image is overlaid with a semi-transparent orange box containing text.

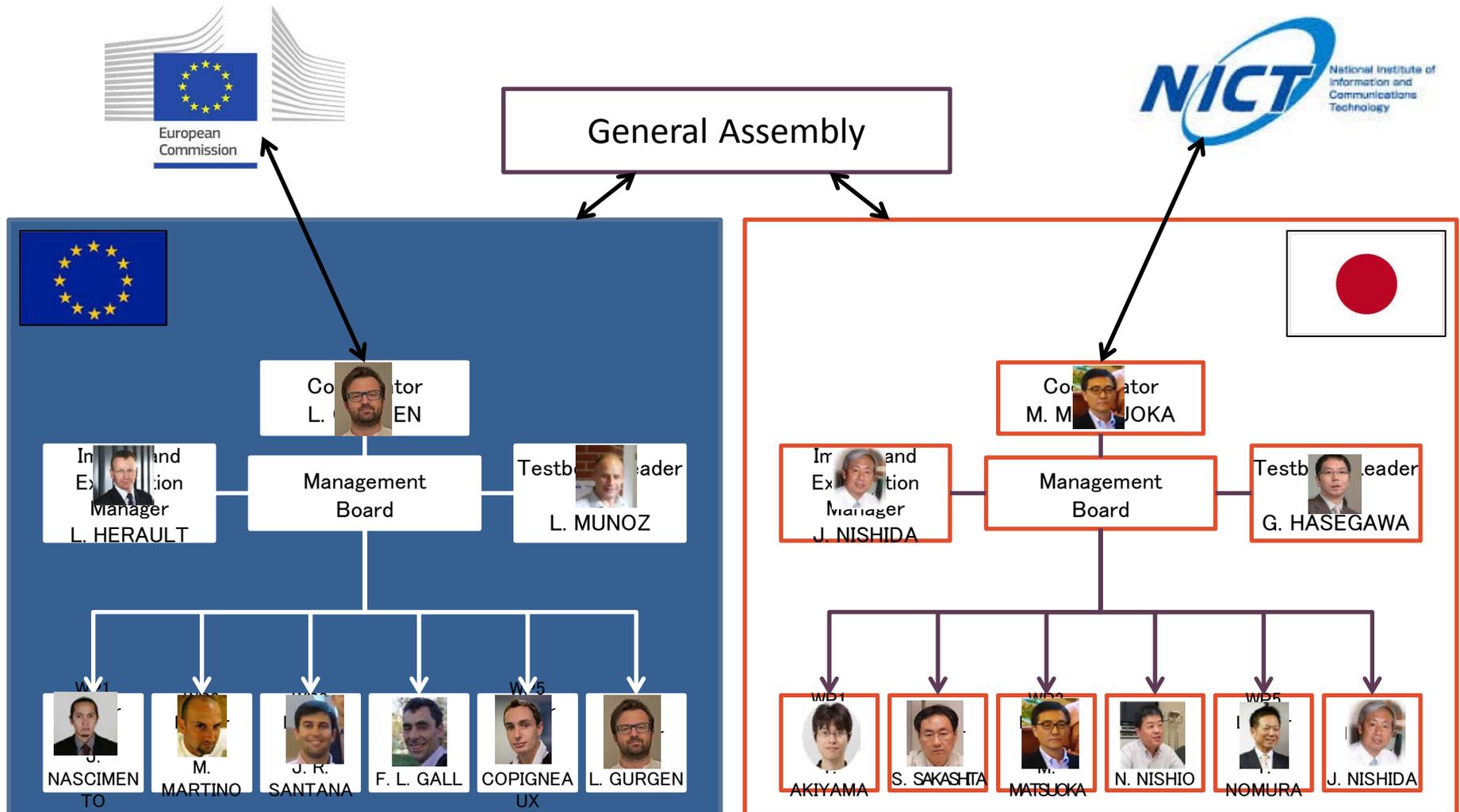
Real-life testbeds, field trials
Japan: Osaka, Kansai

-
- Start up date
 - October 2014
 - Funding
 - EU Side: receive funding from Horizon 2020 Programme
 - JP Side: receive funding from NICT

FESTIVAL management structure



FESTIVAL management structure



Requirements for Smart ICT experiment platform



(1) Provide ICT Infrastructure

- IoT/M2M Messaging
- Sensor data storage/analysis
- Visualization/actuator control

Application use case survey

Extracting common API

Existing **testbed** survey

(2) Provide reference procedures of stakeholder coordination

- e.g. Terms and conditions for personal information collection

(3) Provide reference conditions for secondary use of experiment data

- e.g. Terms and conditions for sensor data and analysis results sharing

Points

How to federate existing testbeds?

How to involve stakeholders in decision making for Smart ICT development?

Knowledge creation base like **TUBA** and **Knowledge Capital** plays important role

3 target application domains

Smart energy



Smart building



Smart shopping



iHouse



PTL



GFO – The Lab



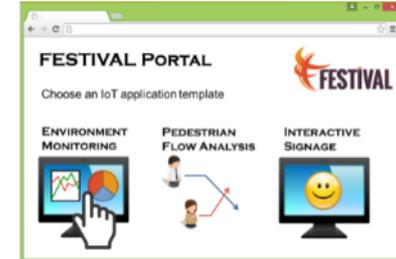
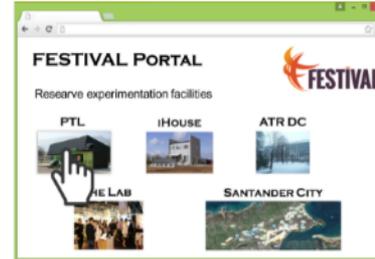
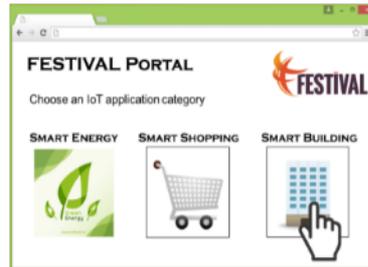
Santander



FESTIVAL Architecture



FESTIVAL Portal



Experiment based federation

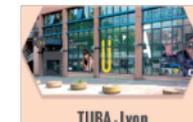
Federation through Experimentation as a Service

EaaS

Resource based federation



Resources

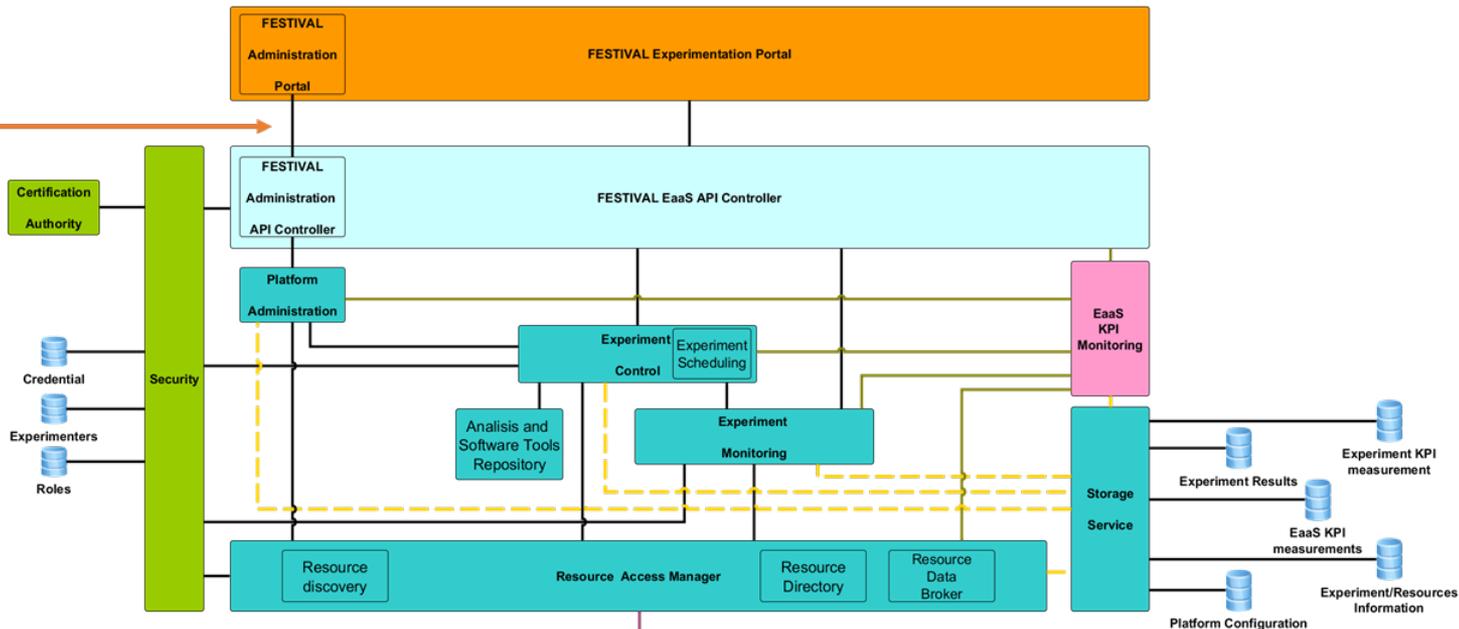


Testbeds

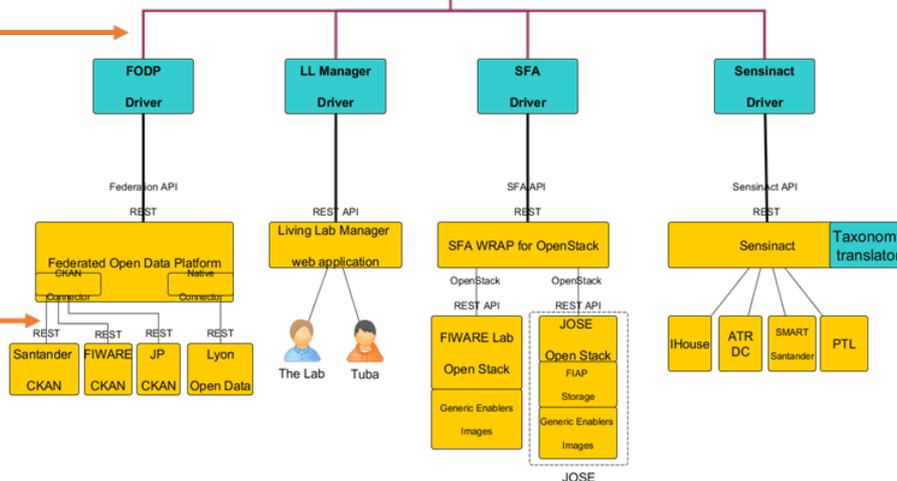


Design and implementation of EaaS APIs

Functional acceptance testing
EaaS platform level



Integration testing
Driver level



Conformance testing
Testbed level

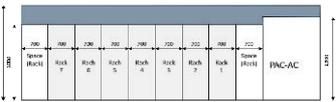
Selected applications and experiments



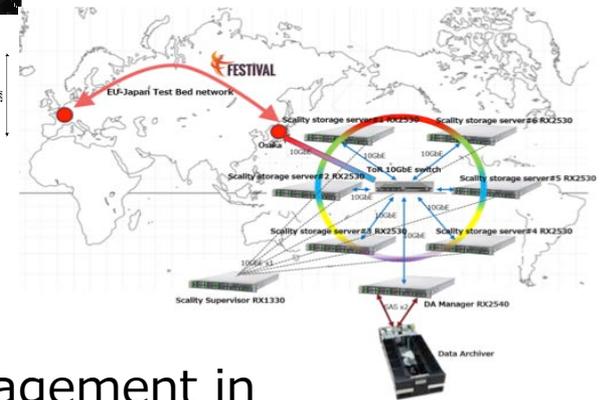
@Santander
 Mercado del Este
 Connected shop
 Advertised premium discount



@Tokyo ATR Data Center
 Smart Data Center



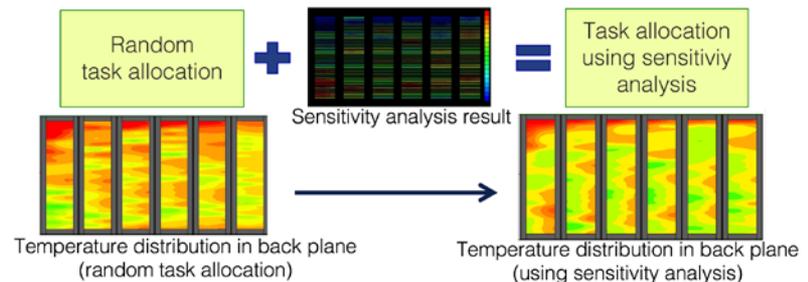
Cold Storage
 Geo-replication



@Santander SmartSantander
 Sensor data from SmartSantander
 are provided as Open Data



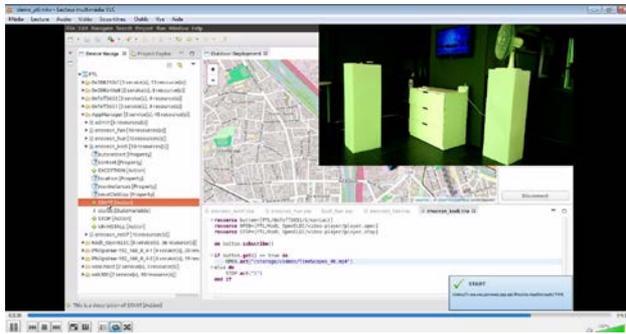
Energy Management in
 Data Center (xEMS)



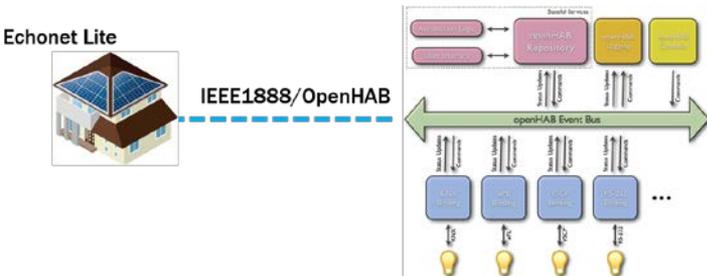
Selected applications and experiments



@Grenoble, PTL
Smart Energy Management
in Experimental Smart House



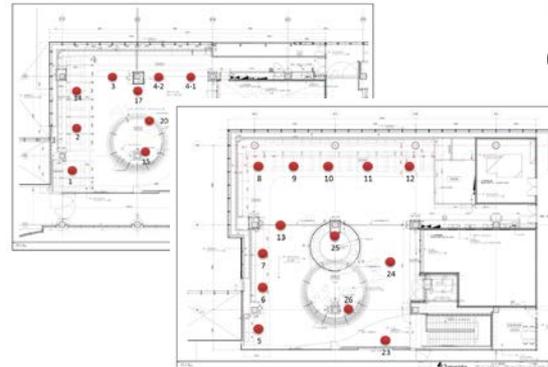
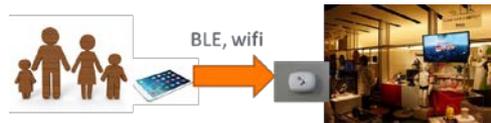
@Ishikawa, iHouse
Energy Management in
Protocol Agnostic Smart House



@Kobe, Minato Kanko (Bus company)
Safe driving support system



@Osaka, The Lab.
Recommendation
analysis system



@Kobe & Kyoto, Maya,
Kameoka Station (JR)
Environmental
monitoring using
digital signage space

*Several other
applications
will start up soon*

FESTIVAL Call for Experimenters



FESTIVAL offers key IoT resources in Europe and Japan



- For who? Researchers, SMEs, startups, innovators, developers...
- For what? To experiment with FESTIVAL testbeds in Europe and in Japan from smart building, smart energy, smart shopping and smart city domains.
- How? Through federated FESTIVAL Platform with easy-to-use APIs and the Experimenters Portal

The experimenters will benefit from the state of the art IoT testbeds and access to large quantity of IoT devices, open data repositories and computing resources in Europe and in Japan.

A Kit for Experimenters will be available on the FESTIVAL website from November!

- Call remains open from Nov. 2016 to April. 2017, New applicants will be selected every month
- No financial support, Support will be provided to experiments through the online documentation, webinars and a helpdesk

Contact : enduser@festival-project.eu

Web link : http://www.festival-project.eu/en/?page_id=849

Twitter : [@Festival_EU_JP](https://twitter.com/Festival_EU_JP)



THANK YOU FOR YOUR
ATTENTION!
ご清聴ありがとうございます!

