Open APIs
for Open
Minds

FIWARE IoT Ready Programme

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Certification of IoT devices

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FIWARE

Índex

About FIWARE

- At present, 89 cities from 19 countries in Europe, Latin America and Asia belong to the Open & Agile Smart Cities (OASC)

- The members of this Alliance have agreed to operate, share and publish their smart city data by means of the **FIWARE** interoperability model.

- Thousands of companies, including large corporations, startups, SMEs and individual developers worldwide are willing to provide their Internet of Things (IoT) solutions to these cities, basing their solutions on FIWARE open source platform components.

- The FIWARE ecosystem represents a great business opportunity for IoT products.

FIWARE

FIWARE IoT Ready Programme (I)

➢ The FIWARE IoT Ready Programme is used to demonstrate the ability of IoT solutions to seamless interoperate with FIWARE.

➢ FIWARE IoT Ready Programme aims to enlarge the FIWARE ecosystem, connecting IoT hardware (sensors/actuators) producers as technology providers to FIWARE large base of developers.

➢ FIWARE IoT Ready Programme opens a unique business opportunity for IoT products.

FIWARE IoT Ready Programme (II)

➢ The goal of the FIWARE IoT Ready Programme is the **certification of IoT devices**

➢ It provides a list of vendors distributing IoT devices and systems which can be easily connected to FIWARE ecosystems.

➢ FIWARE IoT Ready website publishes a list of commercially available certified devices including:
  - ✓ Company name
  - ✓ Company description
  - ✓ Device name
  - ✓ Photograph
  - ✓ Link to device web

FIWARE IoT Ready Programme (III)

FIWARE IoT Ready Programme is a program designed to validate the following types of implementations:

- Proprietary devices with a **complete hardware and software solution**.

- **Software implementations** working on a general purpose hardware (such as Arduino, Raspberry PI, Mini-PC, Mote sensor, etc.). This kind of products may use real or virtual sensors.

- **Libraries** to be used by different types of devices. This kind of product may use real or virtual sensors.

The program consists on an auto-evaluation process supported and reviewed by AT4 wireless.

Steps to validate your FIWARE implementation

1. Apply for validation of your implementation sending an email to IoTservices@at4wireless.com

2. Read the *Validation Guide* that you will receive (together with the FIWARE IoT Ready template) after applying for validation

3. Setup your implementation to work with the FIWARE platform.

4. Perform the tests according to the supplied *Validation Guide*, using the public instances provided by FIWARE and record the log files generated during the tests execution.
Note: Optionally you may use your own instance for the purpose of performing the planned tests.

5. Fill the FIWARE IoT Ready template provided.

6. Send logs and documentation to FIWARE IoT Ready Program reviewers (IoTservices@at4wireless.com).

7. If required, provide additional information that FIWARE IoT Ready Program reviewers may request.

8. Your device is added to the list of FIWARE IoT Ready commercial devices catalogue available at http://catalogue.fiware.org/devices.

Certification Tests

The tests that need to be executed to validate your implementation are following:

➢ **Create an IoT Service**

➢ **Register your IoT device implementation**

➢ **Obtain the list of devices**

➢ **Send measurements**

➢ **Read measurements**

➢ **Send commands**

Create an IoT Service (optional)

↓

Register your IoT hardware device

↓

Obtain the list of devices(optional)

↓

Send measurements

↓

Read measurements

↓

Send commands (*)
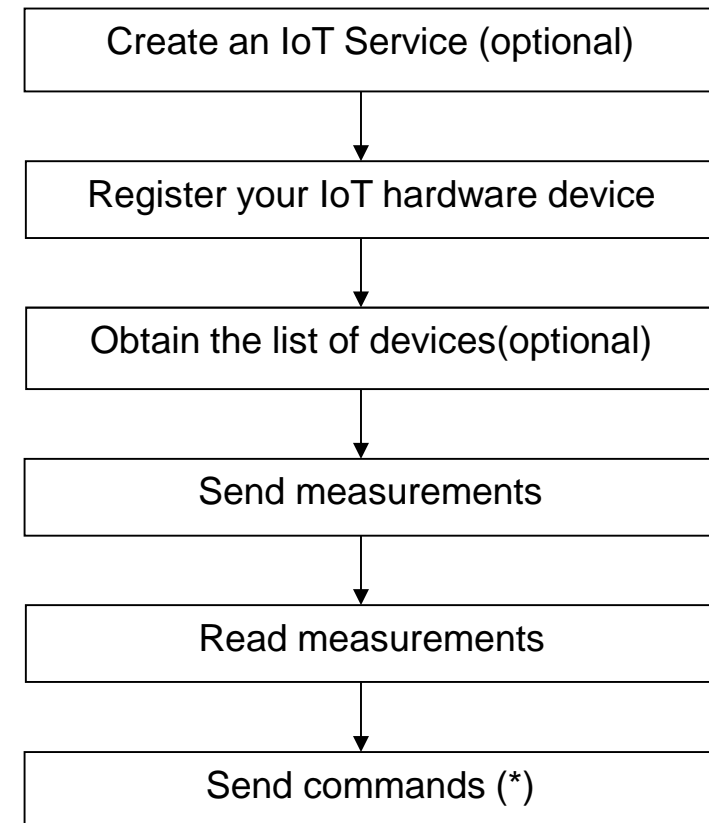
(*) Optional depending on device features

Benefits of FIWARE certification (I)

➤ FIWARE certification is expected to be a requirement by operators and service providers when choosing IoT products for IoT environments such as smartCities, eHealth, smartFarming, etc.

➤ The certification demonstrates compliance with the technical requirements established by FIWARE.

➤ It brings visibility to the certified products, as the device is displayed at the FIWARE website.
http://catalogue.fiware.org/devices

➤ At this moment, the participation in the FIWARE IoT Ready Program is free, i.e., the certification has no cost for the vendor.
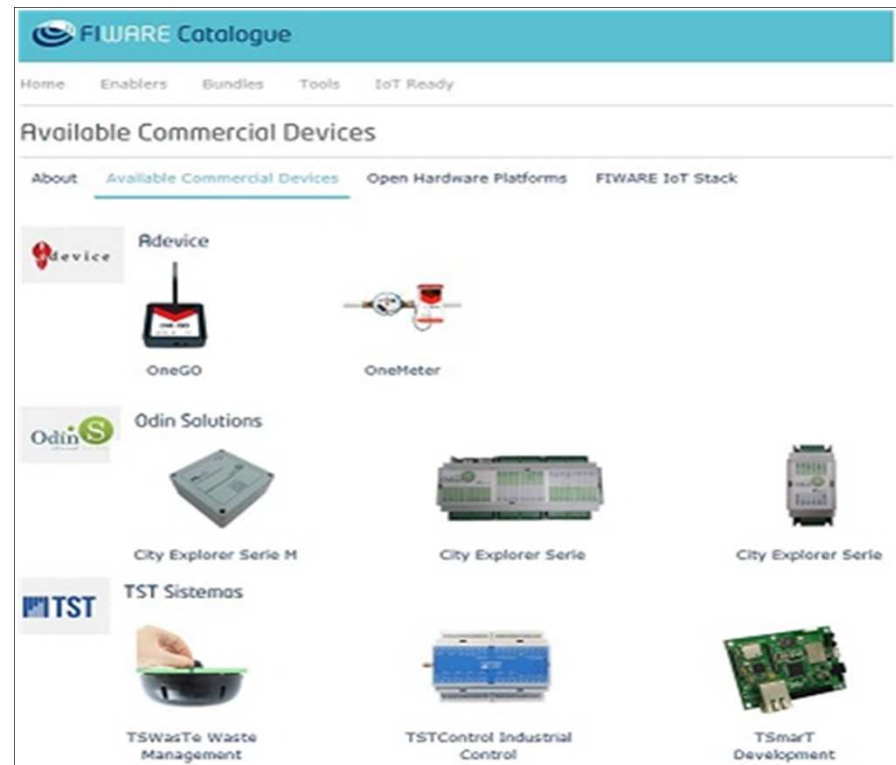
Benefits of FIWARE certification (II)

Benefits for the consumer

✓ **Confidence** to consumers, who purchase products certified and evaluated by an impartial and recognized certification body.

✓ **Added value** when selecting products from different providers.

✓ **Protection** from purchasing substandard products.

Benefits for the supplier

✓ Facilitates the commercialization of the products, by a **known and recognizable identification** (FIWARE).

✓ **Competitiveness** through the quality of the FIWARE products.

✓ Certification strengthens the **credibility** of the product.

✓ Facilitates entry into **new markets.**
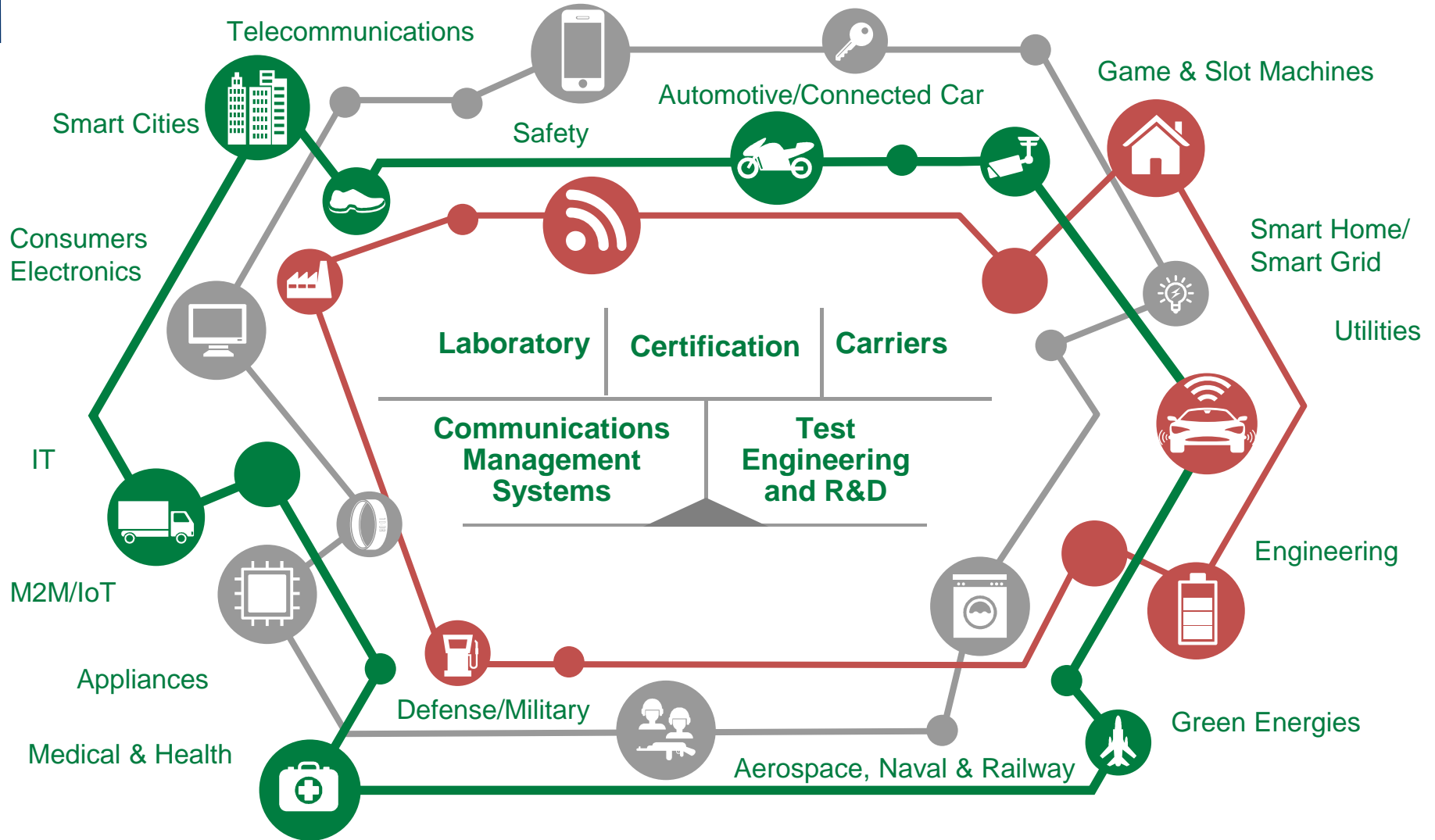
About AT4 wireless, a DEKRA company

AT4 wireless' mission is to provide advanced technological services worldwide, to ensure the safety, compliance and reliability of products and services.

- ❑ Testing and certification
- ❑ Active in the IoT ecosystem

▶ DEKRA SE is a wholly-owned subsidiary of DEKRA e.V. and manages the Group's operating business. DEKRA generated sales of around €2.7 billion in 2015.

▶ The company currently employs around 37,400 people in more than 50 countries on all five continents. With qualified and independent expert services, they work for safety on the road, at work and at home.

▶ These services range from vehicle inspection and expert appraisals to claims services, industrial and building inspections, safety consultancy, testing and certification of products and systems, as well as training courses and temporary work.

About AT4 wireless

Telecommunications
Smart Cities
Consumers Electronics
IT
M2M/IoT
Appliances
Medical & Health
Safety
Automotive/Connected Car
Game & Slot Machines
Smart Home/ Smart Grid
Utilities
Engineering
Green Energies
Aerospace, Naval & Railway
Defense/Military

Laboratory | **Certification** | **Carriers**

Communications Management Systems | **Test Engineering and R&D**

About AT4 wireless

more than **100 Worldwide Partners** and over **6.500 Compliance Certificates** achieved

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Barcelona, SP
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Istanbul, TR
Stuttgart, GER

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Guangzhou, CN
Kunshan, CN
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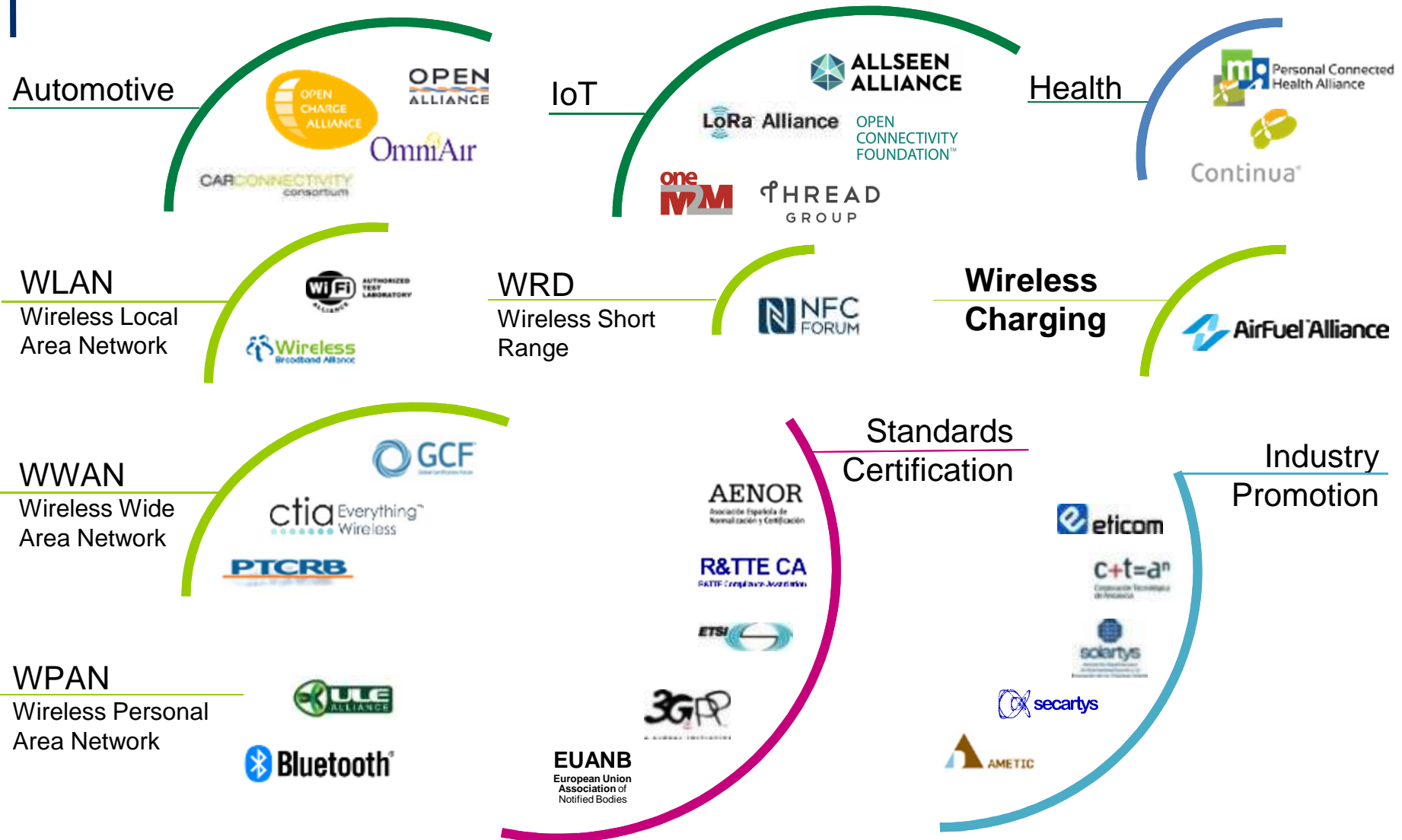
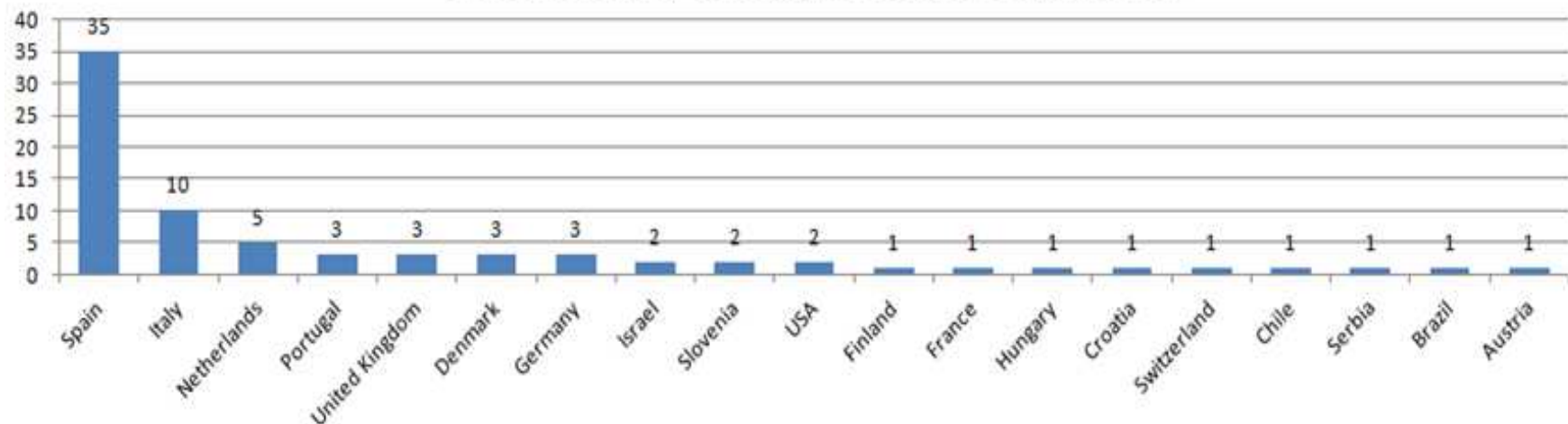# About AT4 wireless

AT4 wireless activities in FI-Core (I)

➢ AT4 wireless joined FI-Core in June 2016

➢ AT4 wireless is promoting and searching for IoT device manufactures or developers of drivers for IoT device open hardware architectures.

Companies	
Contact established	77
Initial Interest	54
Confirmed Certification intention	18
Certified companies	7

AT4 wireless activities in FI-Core (II)

➢ AT4 wireless is promoting and searching <u>internationally</u> for IoT device manufactures or developers of drivers for IoT device open hardware architectures.

Breakdown by country (contact established)

AT4 wireless activities in FI-Core (III)

➢ Consultancy: Guide vendors through the certification process.

➢ Testing: Support vendors on testing execution.

➢ Certification Body: AT4 wireless, acting as IoT Ready reviewer, evaluates the documentation provided by vendors (Logs, Template, Manuals).

➢ Administrative: Update FIWARE catalogue of commercially available products.

➢ Technical support: Creation and maintenance of the Program documentation including the creation of the 'How to validate your Implementation in FIWARE' guide. This guide identifies the procedures and requirements needed to obtain the validation, including the test cases definition.

➢ Technical support: Maintenance of the available public instances required to perform the certification testing.

Join to FIWARE IoT Ready Programme

Please send an e-mail to:

IoTservices@at4wireless.com

requesting your participation in the IoT Ready Programme.

Contact AT4 wireless

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Thank you!

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