FI-WARE

THE **OPEN PLATFORM**
FOR THE FUTURE INTERNET
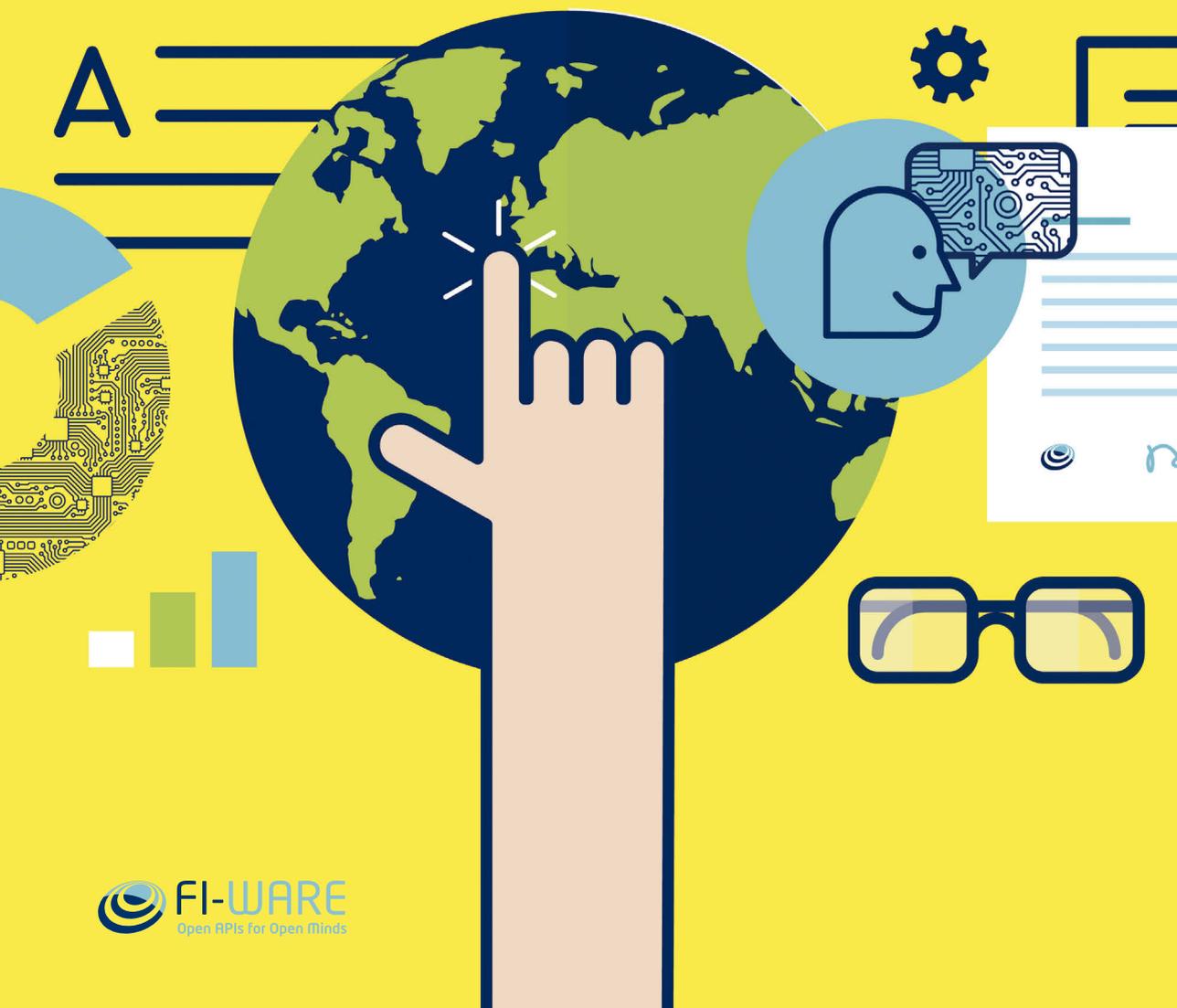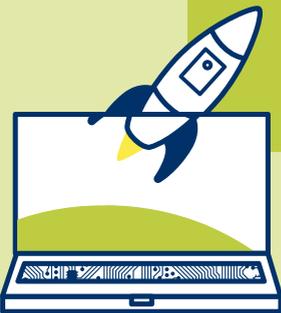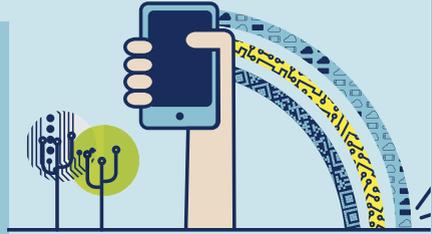
FI-WARE
Open APIs for Open Minds

INTERNET: PAST, PRESENT... FUTURE.

Few things have impacted our lives and the way companies do business as the Internet has. And it isn't difficult to predict that a new digital revolution is coming, one that, once again, will radically impact the daily lives of individuals, businesses and public administrations. This revolution relies on a simple yet powerful concept:

Internet will become The Next Computer.

This 'computer' will bring capabilities that go way beyond hosting applications and content in the Cloud. Applications will be able to connect and interact easily with objects of the physical world (Internet of Things). Extract valuable knowledge by gathering and analyzing large amounts of data (Big Data). Capture, process and publish media content in real-time. Provide richer experiences to users with functionalities such as Augmented Reality.

Most importantly, this Next Computer will be always available - seamlessly accessible from any device, from any location. And large internet corporations (such as Amazon or Google) have already understood this new technological landscape and are beginning to exploit it, with great success. But in their own ways. Which are slightly different from ours. Ours is FI-WARE.
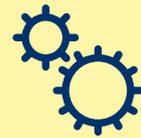
FI-WARE (where FI stands for Future Internet) is an open platform that makes sophisticated and innovative internet applications easy to build. It lowers the costs and complexity of serving large numbers of users globally and handling data at a large scale.

FI-WARE seeks to provide a truly open, public and royalty-free set of open specifications that will allow developers, service providers, enterprises and other organizations to develop products that satisfy their needs while still being open and innovative.

WHAT IS FI-WARE?

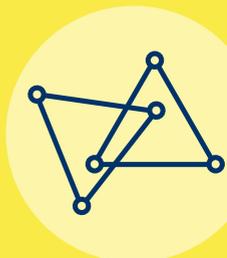Powerful Technology
+
Freedom of Choice

FI-WARE will dramatically increase Europe's Information and Communications Technology competitiveness by introducing an innovative infrastructure that enables cost-effective creation and delivery of versatile digital services, high quality of service and security guarantees.

How does it work? What makes it different?

Powerful Technology: it assembles a set of "building blocks" that can create complex internet applications. These blocks called Generic Enablers are already available and ready to use.

Freedom of Choice: it offers its technology openly, with public and royalty-free specifications. Its open nature allows application providers to choose who will create and operate their applications and where to store the data used in them. This way nobody gets tied to one single provider.

WHAT IS FI-lab?

Open Innovation Lab + Meeting Point

Upon FI-WARE there is a technological environment and meeting point that is growing larger each day: FI-Lab.

FI-Lab is a working instance of FI-WARE available on the Internet (lab.fi-ware.org). It's an Open Innovation Lab that offers two important and complementary assets:

a. **Open Data:** a space where large amounts of data can be stored and made available to developers.

b. **Powerful yet easy-to-use technology:** a whole suite of FI-WARE tools that developers can freely experiment with in order to turn brilliant and ground-breaking ideas into a reality.

The FI-Lab environment will not only be where developers can put FI-WARE to work and materialize their ideas. It will become the pillar of a global Open Innovation Ecosystem bringing attractive incentives.

Web Entrepreneurs and Developers

1. Can test with real data
2. Can run trials with real users
3. Get visibility and promotion
4. Can host permanent showcases
5. Connect to potential customers
6. Accelerate product development

Application sponsors (business, cities, etc)

1. Provide better customer service
2. Improve Corporate Reputation
3. Connect to innovators
4. Put their data to work
5. Save costs

FI-WARE Instance Providers

1. Provide added-value beyond cloud infrastructure
2. Connect to entrepreneurs
3. Create innovative business models

As a result FI-Lab turns into the perfect meeting point between small and medium enterprises, public and private data providers, investors, entrepreneurs, potential users and customers. With endless possibilities such as becoming the perfect breeding ground for Smart Cities to thrive.

FI-WARE
BUILDING BLOCKS

FI-WARE is based upon a series of elements (called Generic Enablers) that offer reusable and commonly shared functions serving multiple areas of use across various sectors.

FI-WARE Generic Enablers are classified into the following Technical Chapters:

1. Cloud hosting

The fundamental layer that provides the computation, storage and network resources on top of which services are provisioned and managed.

2. Data/Contex Management

The enablers easing access, gathering, processing, publication and analysis of data at large scale, transforming it into valuable knowledge available to applications.

3. Architecture of Applications/ Services Ecosystem and Delivery Framework

The framework to co-create, publish, cross-sell and consume applications/ services, addressing all business aspects.

4. Interface to Networks and Devices (I2ND)

The enablers to make the most of underlying network infrastructure capabilities.

5. Security

The mechanisms that ensure that the delivery and usage of services is trustworthy and meet security and privacy requirements.

6. Internet of Things (IoT) Services Enablement

The bridge where Future Internet services interface and leverage the ubiquity of heterogeneous, resource-constrained devices in the Internet of Things.

7. Advanced Middleware and Web-based User Interface

A set of enablers that make it easy to incorporate 3D & Augmented Reality capabilities in web-based user interfaces, plus the most efficient backend middleware ever.

ARE YOU
A DEVELOPER?
Start using FI-WARE now

1.

FI-Lab

FI-Lab is a free experimentation environment where you will find global GEi instances already deployed or deploy your own dedicated instances. Create a free account and check the video tutorials!

2.

e-Learning Platform

The FI-WARE e-Learning platform is a good place to start. Here you will find webcasts, tutorials and presentations of FI-WARE GEis.

FI-WARE provides advanced OpenStack-based cloud hosting capabilities and a rich library of "Generic Enablers" offering a number of added-value functions offered "as a Service". These Generic Enablers make it rather easy to connect to the Internet of Things, process data and content in real-time at a large scale or perform Big Data analysis, among other things.

Availability of open source Generic Enabler implementations (GEis) will accelerate availability of multiple commercial FI-WARE providers, all supporting the same set of APIs.

Start using FI-WARE right now. Here are the necessary resources:

3.

FI-WARE Catalogue

Visit the FI-WARE Catalogue to find all the information, documentation and tools you need as a developer to start using a Generic Enabler Implementation.

Visit our WIKI to have a tour through the essential information that may help you to get started with FI-WARE.

As a starting point here is a working set of GEis that you can use and explore, freely, on FI-Lab (don't forget to check the "Instances" tab to get endpoints to currently deployed global GEi instances).

FI-LAB infrastructure provided by

Ayuntamiento de Málaga

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