



TESTBED FOR FUTURE
INTERNET SERVICES

Common assets for Smart Cities Living Labs innovation

Assets from TEFIS

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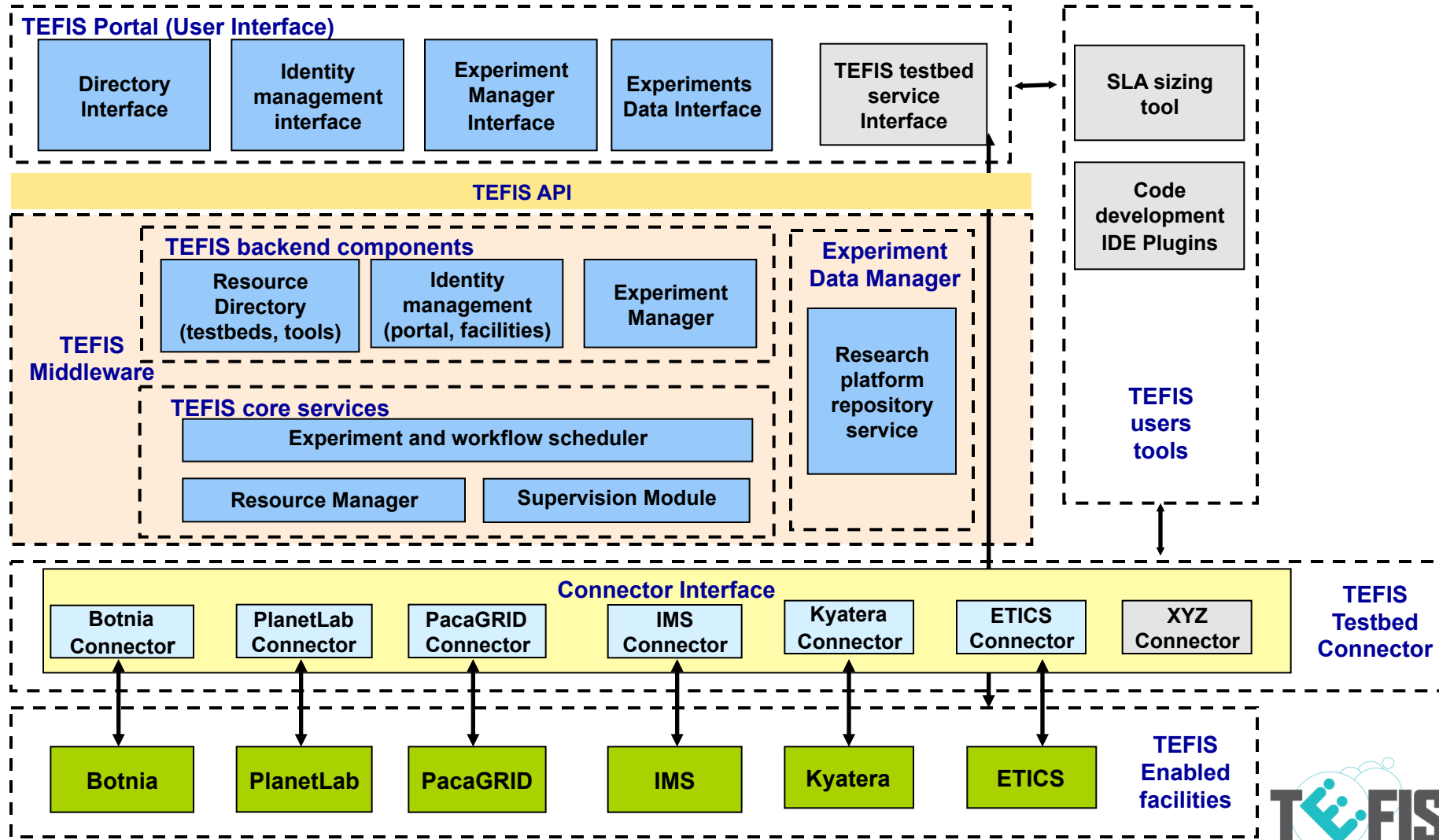
The TEFIS Mission

- TEFIS aims to provide a single access point for **EXPERIMENTERS TO MANAGE THEIR COMPLETE EXPERIMENT, ORCHESTRATED ACROSS ONE OR MORE TESTBED FACILITIES**
- Support of the entire service development lifecycle (*need finding; business model definition; software design and development; testing, quality and system engineering*)
- Be use-case driven (*supporting experimenters to get the best out of the testbeds available*)
- Provide an open framework that will enable the efficient combination of various facilities (*Network resources, Living Lab resources, Cloud resources*)

TEFIS assets for future Smart Cities experimentation

- 1. The TEFIS platform including different User tools**
- 2. The TEFIS testbed facilities**
- 3. The TEFIS connector interface**
- 4. The TEFIS use-case database**
- 5. The TEFIS experimenter database**

The TEFIS platform: Functional architecture



TEFIS Architecture definition

High-level requirements

- Plan
 - Express needs (potentially in a simple way)
 - Identify similar experiments and key resources
 - Be guided in the design of an experimental plan
- Configure
 - Get/request access rights to resources
 - Book and provision resources
 - Define test runs and resource configurations
- Execute
 - Deploy resource configurations and adequate software
 - Execute test runs
- Share
 - Collect experimental data
 - Share experimental data and the methodology



The TEFIS testbeds

Planetlab: evaluation of network protocols and large-scale distributed systems.

PACA Grid: computational resources for applications such as simulations, financial computations, image processing, etc.

ETICS : testing quality, reliability and interoperability of distributed complex systems.

SQS IMS: conformance validation and interoperability testing of applications over IMS (IP Multimedia Subsystem).

Botnia Living Lab: products and services experimentally developed in real-life contexts with real users.

KyaTera: network performance evaluation to assess the quality of the network, transmitting multimedia data to a specific Quality of Service level

			Telecommunication and networks			Application & services		Living lab
			PlanetLab	IMS	Kyatera	ETICS	PACA Grid	BOTNIA
		Need Identification						X
		Business Model definition	X	X	X		X	X
		Software design						X
		Software Development		X		X		
		Test & quality	X	X	X	X	X	X
		System engineering (Network, SLAs)	X	X	X		X	X
Users		Network operators		X	X			
		Service Developers		X		X		X
		Researchers	X		X		X	X

The TEFIS use-case database



The screenshot displays the TEFIS website homepage. At the top left is the TEFIS logo with the tagline "TESTED FOR FUTURE INTERNET SERVICES". To the right of the logo is a navigation menu with links for "HOME", "WHY TEFIS", "BECOME A MEMBER", "RUN A TEST", and "CONTACT". In the top right corner, there are logos for the European Union and the 7th Framework Programme.

The main banner features a server room background and the text "Get access to services you wouldn't have access to otherwise". Below this text are two bullet points: "– Computing capacity" and "– New Future Internet Technology", followed by a right-pointing arrow. Above the main text, a "WHY TEFIS?" section has four numbered tabs (1, 2, 3, 4), with tab 2 being the active one.

Below the banner are three content blocks:

- E-health:** "TESTS EMPOWERED BY TEFIS: E-health READ MORE >" with an image of a person wearing a surgical mask.
- I'm a TEFIS user:** "I'm a TEFIS user Follow me and some of the other users at: [Facebook icon]" with an image of a man's face.
- TUTORIALS:** "HOW TO RUN FUTURE INTERNET EXPERIMENTS >" with an image of a hand holding a globe with various icons.

At the bottom left, there is an image of network cables and the text "Contact us today >>" followed by icons for email, a mobile phone, Facebook, and Twitter.

The TEFIS user database

1. Researchers
2. SME's
3. Industrial actors
4. Public authorities

**In the domain of Future Internet
Development**

**and different testbed facility
providers**



Regulations and IPR management for TEFIS assets sharing

- Each testbed provider has different regulations for their assets
- The TEFIS platform is being developed under the conditions of Open License Terms
- Experimenters can have their specific regulations for sharing

Thanks!

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