

PROYECTO FIWARE:

FUTURE INTERNET - WARE

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GGTT REDIRIS

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- ⦿ El contexto Global
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La Internet del Futuro

Cuales son las principales carencias que se identifican en la Internet actual

Soporte inadecuado de la movilidad

Soporte inadecuado de dispositivos móviles y sensores

Identidad, Seguridad y Privacidad no son características nativas, lo que impacta negativamente en la Confianza de los usuarios y limita el crecimiento

Procedimientos de gestión poco potentes y no suficientemente automatizados

La incorporación de nuevas tecnologías no es suficientemente sencilla

Procedimientos de desarrollo de servicios demasiado complejos

Transporte de contenidos demasiado complejo y poco eficiente

La Internet del Futuro

Cuales son las principales características que se proponen para la Internet del Futuro

Accesos móviles de “banda ultra ancha” con cobertura “universal”

Accesos fijos de fibra óptica de “banda ultra ancha” con cobertura “universal” de hogares y negocios

Escalabilidad y eficiencia en el transporte de información / contenidos

Identidad, Seguridad y Privacidad como características nativas

Servicios que se adaptan automáticamente al tipo de terminal

Redes Sociales como un aspecto constituyente de todo tipo de servicios

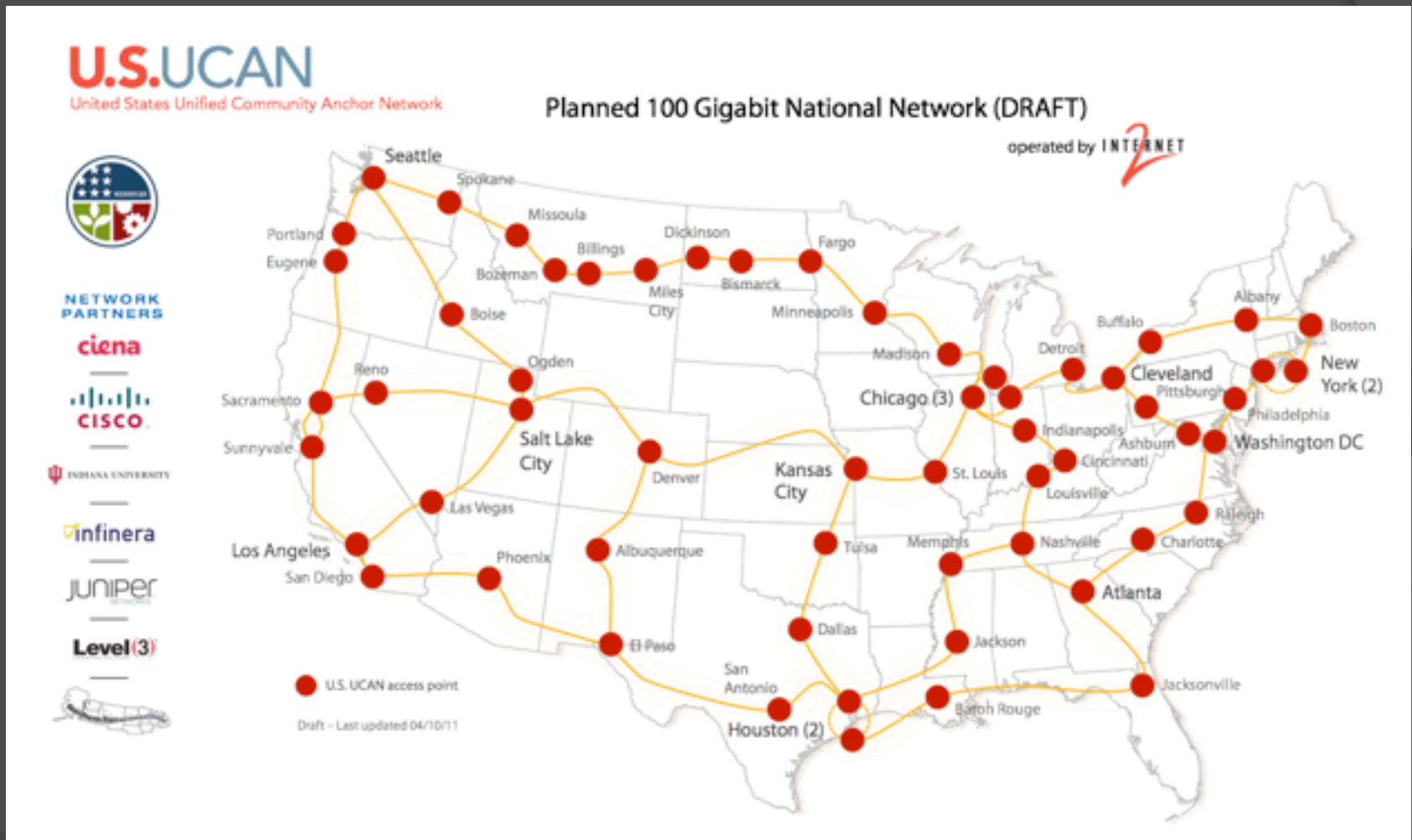
“Cloud Computing” abierto e interoperable como infraestructura básica de todo tipo de servicios

Internet de las Cosas como un elemento básico

El Contexto Global: Algunas de las principales iniciativas

Pais	Proyecto
Estados Unidos	NeTS
Estados Unidos	NetSE
Estados Unidos	FIND
Estados Unidos	GENI
Estados Unidos	Stanford Clean Slate
Estados Unidos	U.S. UCAN
Japon	Akari
Asia	Asia Internet Forum
Corea	Future Internet Korea

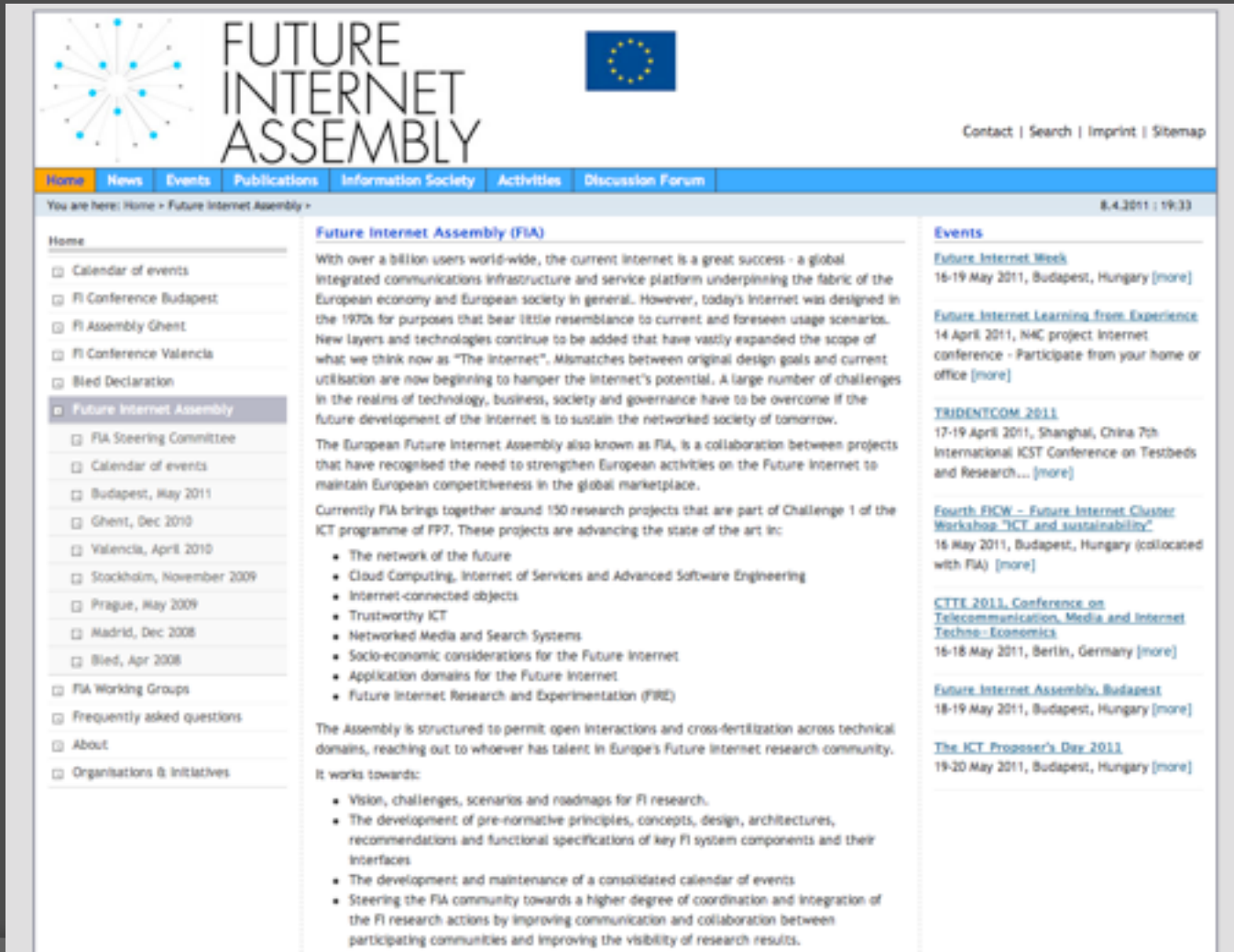
El Contexto Global: U.S. UCAN - Unified Community Anchor Network



El Contexto Europeo: Algunas de las principales iniciativas

Pais	Proyecto
Alemania	Theseus / texo
Alemania	G-Lab
Finlandia	ICT-Shok
Francia	National Future Internet Initiatives – GRIF
España	Internet del Futuro
Suecia	Ambient
UE	FIRE
UE	EIFFEL, nextMEDIA
UE	FP6, FP7 (Challenge 1:Pervasive and trusted network and service infrastructures)
UE	FIA – Future Internet Assembly
UE	FI-PPP

El Contexto Europeo: Future Internet Assembly (FIA)



The screenshot shows the homepage of the Future Internet Assembly (FIA). At the top left is the FIA logo, a stylized network of nodes and lines, followed by the text "FUTURE INTERNET ASSEMBLY". To the right is the European Union flag. A navigation bar below the logo contains links for Home, News, Events, Publications, Information Society, Activities, and Discussion Forum. The main content area is titled "Future Internet Assembly (FIA)" and contains a paragraph about the current Internet's success and challenges, followed by a paragraph about the FIA's mission. A list of bullet points outlines the FIA's focus areas. On the right side, there is an "Events" section listing several upcoming conferences and workshops. A sidebar on the left provides a "Home" menu with links to various events and documents.

Home

- Calendar of events
- FI Conference Budapest
- FI Assembly Ghent
- FI Conference Valencia
- Bled Declaration
- Future Internet Assembly**
 - FI Steering Committee
 - Calendar of events
 - Budapest, May 2011
 - Ghent, Dec 2010
 - Valencia, April 2010
 - Stockholm, November 2009
 - Prague, May 2009
 - Madrid, Dec 2008
 - Bled, Apr 2008
- FI Working Groups
- Frequently asked questions
- About
- Organisations & Initiatives

Future Internet Assembly (FIA)

With over a billion users world-wide, the current Internet is a great success - a global integrated communications infrastructure and service platform underpinning the fabric of the European economy and European society in general. However, today's Internet was designed in the 1970s for purposes that bear little resemblance to current and foreseen usage scenarios. New layers and technologies continue to be added that have vastly expanded the scope of what we think now as "The Internet". Mismatches between original design goals and current utilisation are now beginning to hamper the Internet's potential. A large number of challenges in the realms of technology, business, society and governance have to be overcome if the future development of the Internet is to sustain the networked society of tomorrow.

The European Future Internet Assembly also known as FIA, is a collaboration between projects that have recognised the need to strengthen European activities on the Future Internet to maintain European competitiveness in the global marketplace.

Currently FIA brings together around 150 research projects that are part of Challenge 1 of the ICT programme of FP7. These projects are advancing the state of the art in:

- The network of the future
- Cloud Computing, Internet of Services and Advanced Software Engineering
- Internet-connected objects
- Trustworthy ICT
- Networked Media and Search Systems
- Socio-economic considerations for the Future Internet
- Application domains for the Future Internet
- Future Internet Research and Experimentation (FIRE)

The Assembly is structured to permit open interactions and cross-fertilization across technical domains, reaching out to whoever has talent in Europe's Future Internet research community. It works towards:

- Vision, challenges, scenarios and roadmaps for FI research.
- The development of pre-normative principles, concepts, design, architectures, recommendations and functional specifications of key FI system components and their interfaces
- The development and maintenance of a consolidated calendar of events
- Steering the FIA community towards a higher degree of coordination and integration of the FI research actions by improving communication and collaboration between participating communities and improving the visibility of research results.

Events

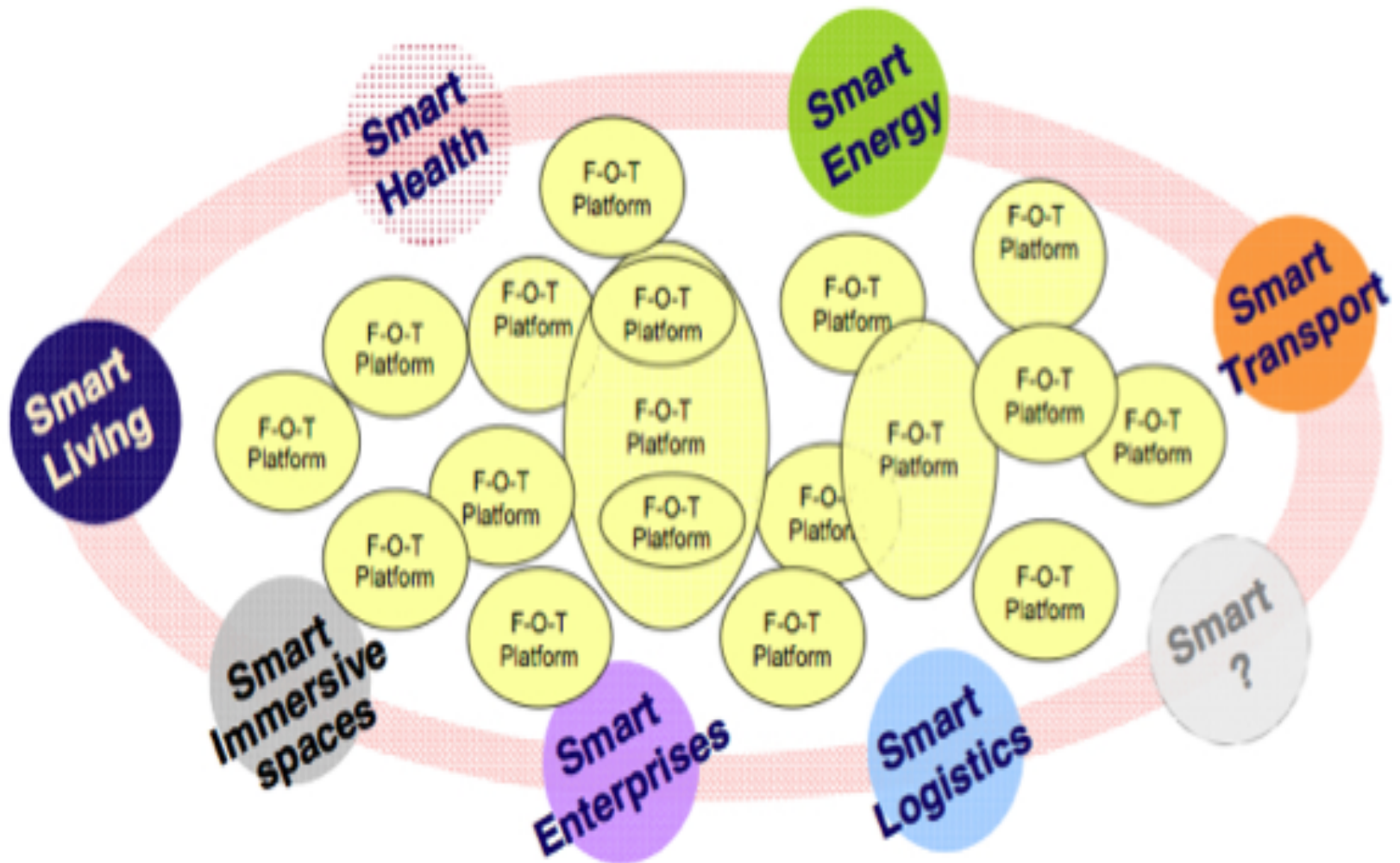
- Future Internet Week**
15-19 May 2011, Budapest, Hungary [more]
- Future Internet Learning from Experience**
14 April 2011, INAC project Internet conference - Participate from your home or office [more]
- TRIDENTCOM 2011**
17-19 April 2011, Shanghai, China 7th International ICST Conference on Testbeds and Research... [more]
- Fourth FICW - Future Internet Cluster Workshop "ICT and sustainability"**
16 May 2011, Budapest, Hungary (collocated with FIA) [more]
- CTTE 2011, Conference on Telecommunication, Media and Internet Techno-Economics**
16-18 May 2011, Berlin, Germany [more]
- Future Internet Assembly, Budapest**
18-19 May 2011, Budapest, Hungary [more]
- The ICT Proposer's Day 2011**
19-20 May 2011, Budapest, Hungary [more]

Contact | Search | Imprint | Sitemap

You are here: Home > Future Internet Assembly >

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El Contexto Europeo: Modelo de la Arquitectura de la Internet del Futuro



FI-PPP (Future Internet Public Private Partnership)

Europe's Information Society
Thematic Portal

European Commission > Information Society

Home | News | Calendar | Library | RSS | XML | Search | Contact | Help

Policies | Activities | Culture & Society | Economy & Work | Education & Training | Quality of Life | IS Industry | Regions / World | Research & Innovation

Future of the Internet Home

Opportunities

Challenges

European research

Leading the way

Socioeconomics

FI PPP

Future Internet Forum

Brief Declaration

Events

Library

Contact us

ACTIVITIES > Future of the Internet > Europe leading the way

European research - FI PPP

Future Internet Public Private Partnership

The Future Internet Public Private Partnership (FI-PPP) aims to advance Europe's competitiveness in Future Internet technologies and systems and to support the emergence of Future Internet-enhanced applications of public and social relevance. It addresses the need to make public service infrastructures and business processes significantly smarter (i.e. more intelligent, more efficient, more sustainable) through tighter integration with Internet networking and computing capabilities.

The aims of the FI-PPP are to increase the effectiveness of business process and of the operation of infrastructures supporting applications in sectors such as transport, health, or energy and to derive possible innovative business models in these sectors, strengthening the competitive position of European industry in domains like telecommunication, mobile devices, software and service industries, content providers and media.

The FI-PPP follows an industry-driven, holistic approach encompassing R&D on network and communication infrastructures, devices, soft ware, service and media technologies; and their experimentation and validation in real application contexts. It brings together the demand and the supply sides, and also requires involving users early into the research lifecycle. The platform to be developed will thus be used by many actors, in particular by SMEs and public administration services, to validate the technologies in the context of smart applications and their viability to support «user driven» innovation schemes.

The FI-PPP is based on a three-phased approach with four tightly related Objectives and two dedicated Calls under this Work Programme. A third Call is planned under Work Programme 2013.

Programme architecture

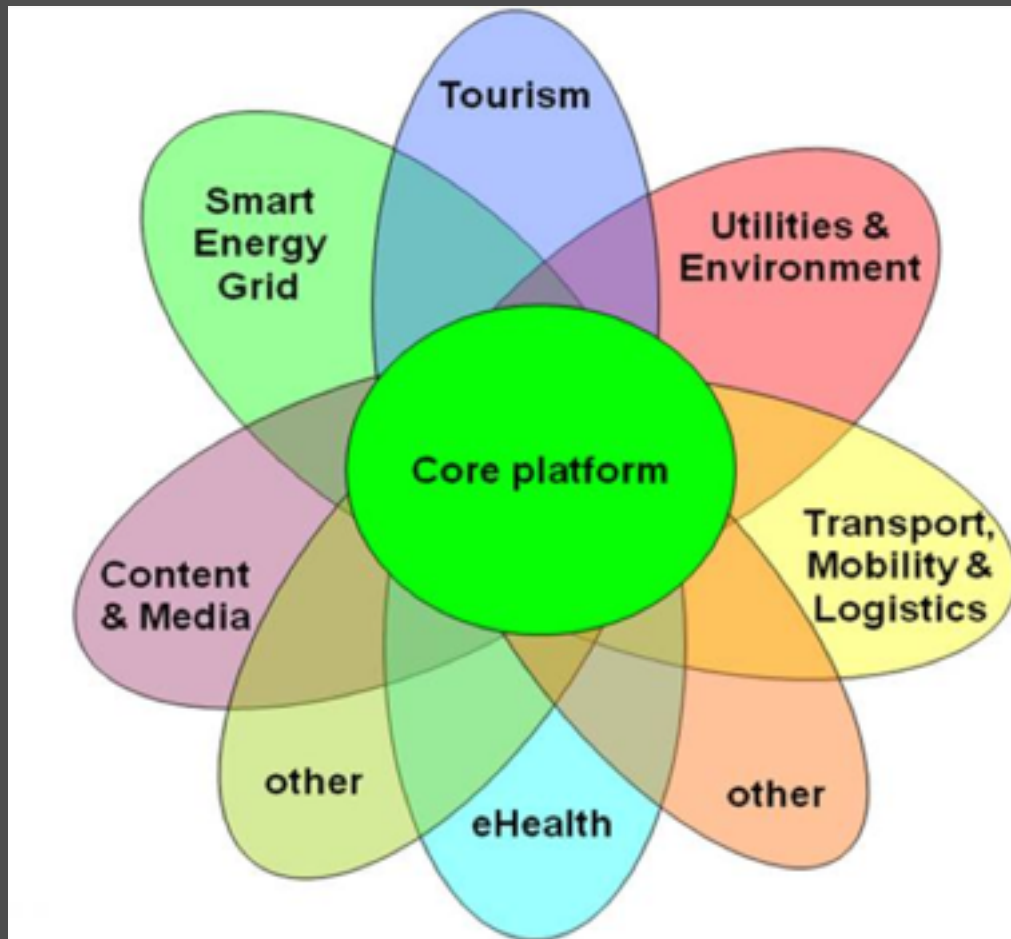
The diagram illustrates the programme architecture from 2010 to 2015, divided into three phases. Call 1 (2010) includes DOMCORD (Programme Facilitation & Support) and INFINITY (Capacity Building & Infrastructure). Call 2 (2011-2012) includes FINEST, INSTANT MOBILITY, SMARTAGRI-FOOD, FINERY, SAFECITY, OUTSMART, and FICONTENT. Call 3 (2013) includes ENVIRON. Use cases are categorized into 'Up to 2 Trials' (FINEST, INSTANT MOBILITY, SMARTAGRI-FOOD, FINERY, SAFECITY, OUTSMART, FICONTENT) and '3rd Call Use Case Expansion Phase' (ENVIRON). The timeline also shows 'TF (Technology Foundation)' from 2010 to 2012 and 'TF Continuation' from 2012 to 2015.

The major advancement in Information and Communication Technologies (ICT) could contribute to both, the management of the economic crisis and the emergence of a truly knowledge-based society and thus, a smarter world.

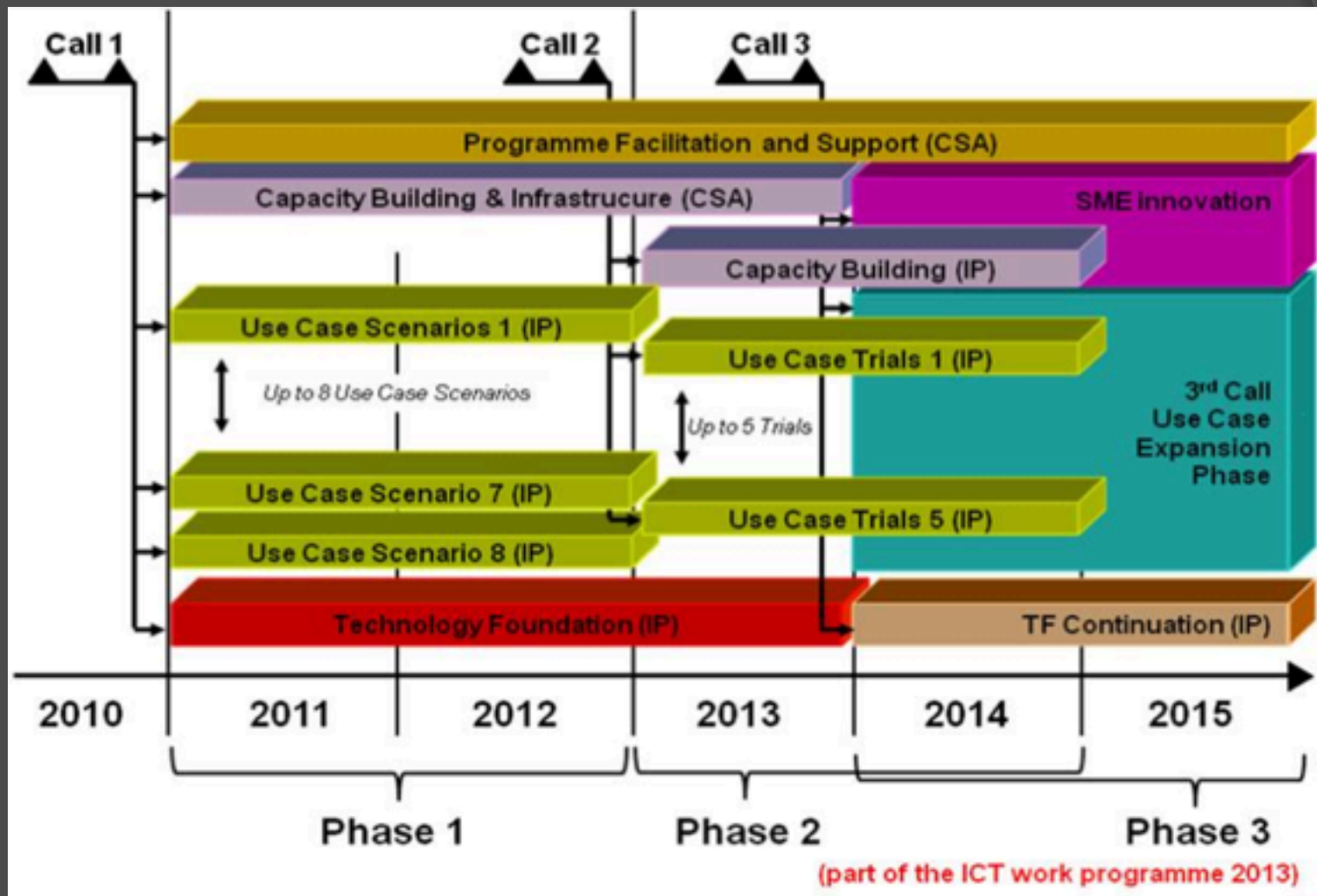
FUTURE INTERNET PPP

- Video: FI-PPP Negotiation Workshop 3/4 March 2010. *Introductory Remarks by Robert Mafolle, Director General DG INFOS*
- **Phase 1:** Short abstracts and contact information of all proposals in negotiation
- Text of the special clause 41 on "Complementary grant agreements" for FI PPP contracts. The official adoption by the Commission is expected for 2 March 2011, upon which it shall be published on Cordis
- FI-PPP evaluation. Specific information for evaluators can be found here.
- Videos: Webcast Portal

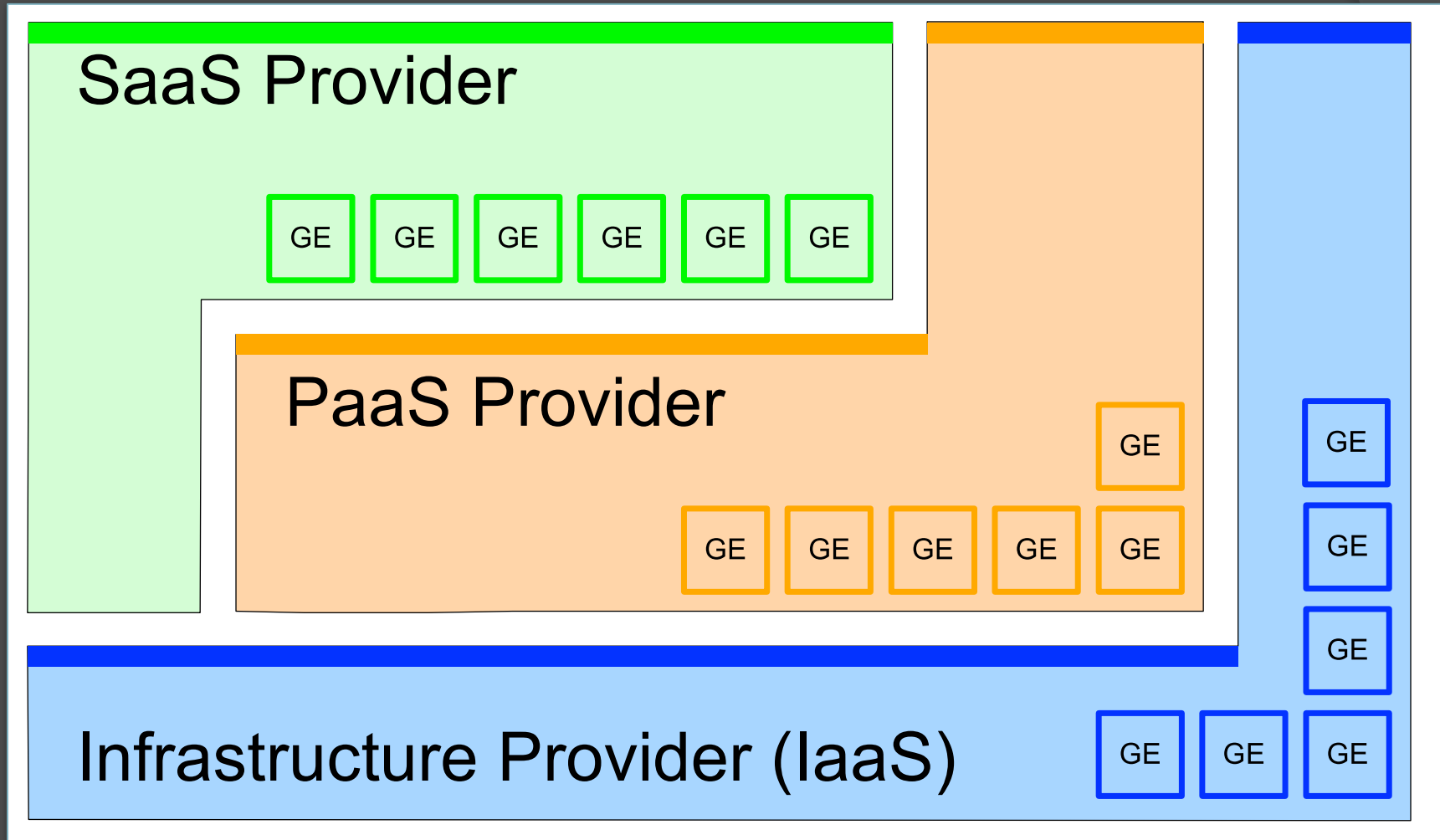
FI-PPP: Plataformas vs Areas de Aplicación



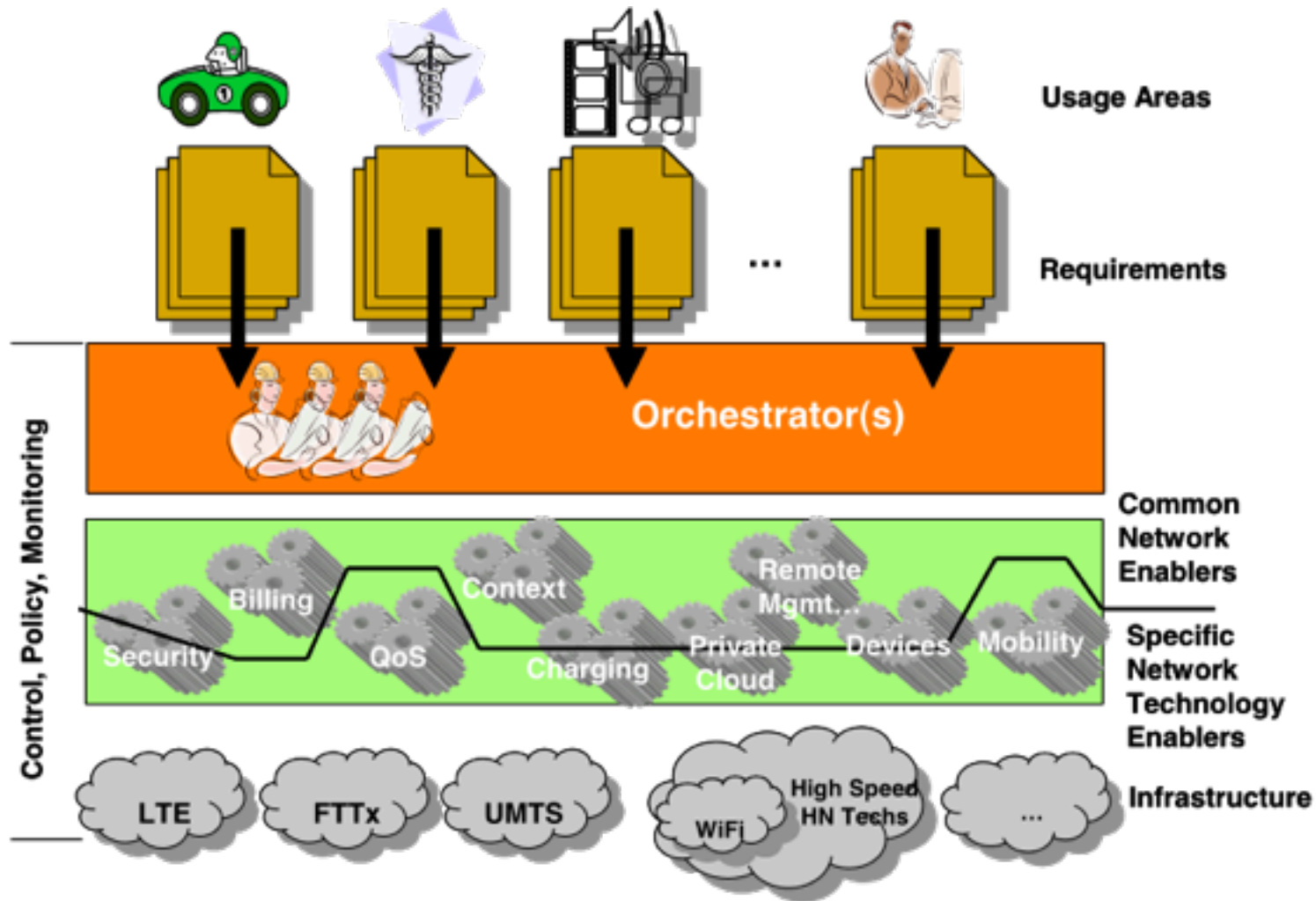
FI-PPP: Estructura del Programa



FIWARE: Modelo de capas (XaaS_ Saas + Paas + IaaS)



FIWARE: Arquitectura de la interfaz con la infraestructura



FIWARE: Elementos principales

FI-WARE envisions developing and providing an Application and Services Ecosystem and Delivery Framework that comprises a set of generic enablers for creation, composition, *delivery*, monetisation, and usage of applications and services on the Future Internet from the technical and business perspective.

Building upon existing virtualization technologies, FI-WARE will deliver a next generation Cloud Stack that will be open, standardised, and secure, and will enable Future Internet applications by providing service-driven IaaS and PaaS functionalities and extending the reach of the cloud infrastructure to the edge of the networks, much closer to final users.

FI-WARE envisions developing and providing Data/Context Management Services which comprise a set of generic enablers for storage support, profiling, contextual and semantic capabilities for supporting Future Internet services and applications tailored to user preferences and environment.

FI-WARE will build the relevant components for Internet of Things Service Enablement, in order for “things” to become citizens of the Internet – available, searchable, accessible, and usable – and for FI services to create value from real-world interaction enabled by the ubiquity of heterogeneous and resource-constrained devices.

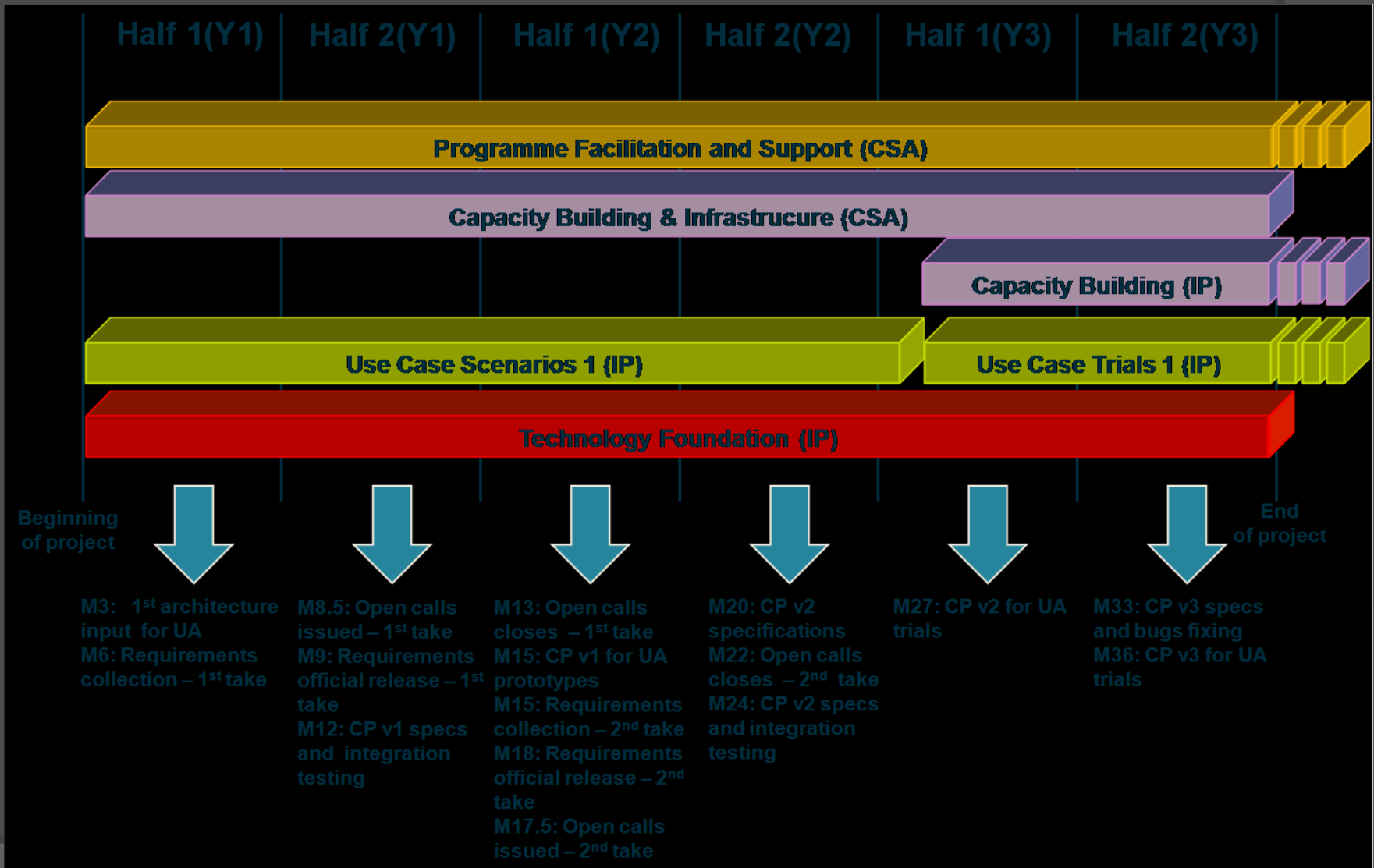
FI-WARE provides a set of open and standardised Interfaces to the Network and to the Devices, each virtualising a particular network infrastructure, network service, or device feature, and addressing a distinct intelligent connectivity need of FI-WARE GEs and the future Internet services.

FI-WARE envisions developing and providing a security enabled service delivery ecosystem which comprises a set of basic and specific security enablers for creation, delivery, and usage of security applications and services on the Future Internet.

FIWARE: Conceptos fundamentales

- **FI-WARE Generic Enabler (GE):** A functional building block of FI-WARE. Any implementation of a Generic Enabler (GE) is made up of a set of components which together supports a concrete set of Functions and provides a concrete set of APIs and interoperable interfaces that are in compliance with open specifications published for that GE.
- **FI-WARE compliant Platform Product:** A product which implements, totally or in part, a FI-WARE GE or composition of FI-WARE GEs (therefore, implements a number of FI-WARE Services). Different FI-WARE compliant Platform Products may exist implementing the same FI-WARE GE or composition of FI-WARE GEs. Actually, the open and royalty-free nature of FI-WARE GE specifications allows the existence of alternative implementations of a FI-WARE GE. FI-WARE compliant Platform Products are made up of components. While implementations of Generic Enablers developed in compliance with FI-WARE GE Open Specifications are replaceable, components linked to a particular FI-WARE compliant Platform Product may not be replaceable.
- **FI-WARE Instance:** The result of the integration of a number of FI-WARE compliant Platform Products and, typically, a number of complementary products. As such, it comprises a number of FI-WARE GEs and supports a number of FI-WARE Services. Provision of Infrastructure as a Service (IaaS) or Context/Data Management Services are examples of FI-WARE Services a particular FI-WARE Instance may support, implemented by means of combining a concrete set of Platform Products. While specifications of FI-WARE GEs define FI-WARE in functional terms, FI-WARE Instances are built by means of integrating a concrete set of FI-WARE compliant Platform Products.
- **FI-WARE Instance Provider:** A company that operates a FI-WARE Instance. Note that FI-WARE Instances may not consist only of the integration of FI-WARE compliant Platform Products but their integration with other products which allow the FI-WARE Instance Provider to gain differentiation on the market (e.g. integration with own Operating Support Systems to enhance FI-WARE Instance operation or with other products supporting services that are complementary to those provided by FI-WARE GEs) or to enable monetization of its operation (e.g., integration with own Billing or Advertising systems).
- **Future Internet Application:** An application that is based on APIs defined as part of GE Open Specifications. A Future Internet Application should be portable across different FI-WARE Instances that implement the GEs that Future Internet Application relies on, no matter if they are linked to different FI-WARE Instance Providers.
- **FI-WARE Testbed:** A concrete FI-WARE Instance operated by partners of the FI-WARE project that is offered to Use Case projects within the FI-PPP Program, enabling them to test their proof-of-concept prototypes. The FI-WARE Testbed is also offered to third parties to test their Future Internet Applications although support to them is provided on best-effort basis.
- **FI-WARE Instance in production:** A FI-WARE Instance run by a FI-WARE Instance Provider in the context of a trial (e.g., trials in phase 2 of the FI PPP) or as part of its service offering to the market. FI-WARE Instances in production will typically have their own certification and developers community support environments. However, several FI-WARE Instance Providers may establish alliances to setup common certification or developers community support environments.

FIWARE: Hitos principales



Conclusiones

- ⦿ FIWARE tiene como objetivo ofrecer una plataforma de experimentación de servicios para terceros
- ⦿ RedIRIS tiene una comunidad con usuarios reales
- ⦿ Se podría tratar de extender la plataforma a comunidad RedIRIS
 - Y mas quiza ampliamente