PROYECTO FIWARE:

FUTURE INTERNET - WARE

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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 prinicipales 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

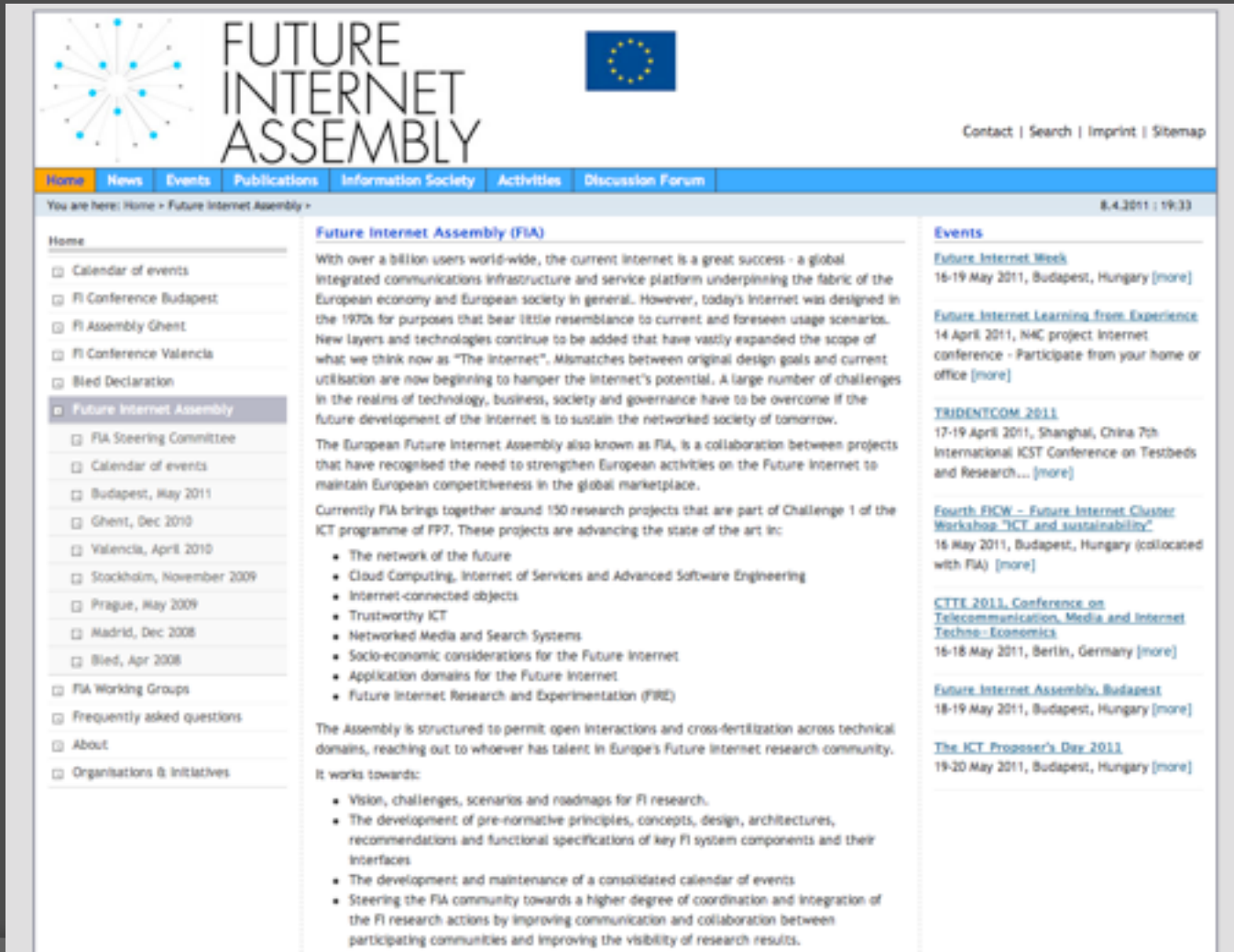| Pais	Proyecto
Estados Unidos	NeTS
Estados Unidos	NetSE
Estados Unidos	FIND
Estados Unidos	GENI
Estados Unidos	Stanford Clean Slate
Estados Unidos	U.S. UCAN
Japon	Akari
Asia	Asia Internet Forum
Corea	Future Internet Korea

El Contexto Global: U.S. UCAN - Unified Community Anchor Network
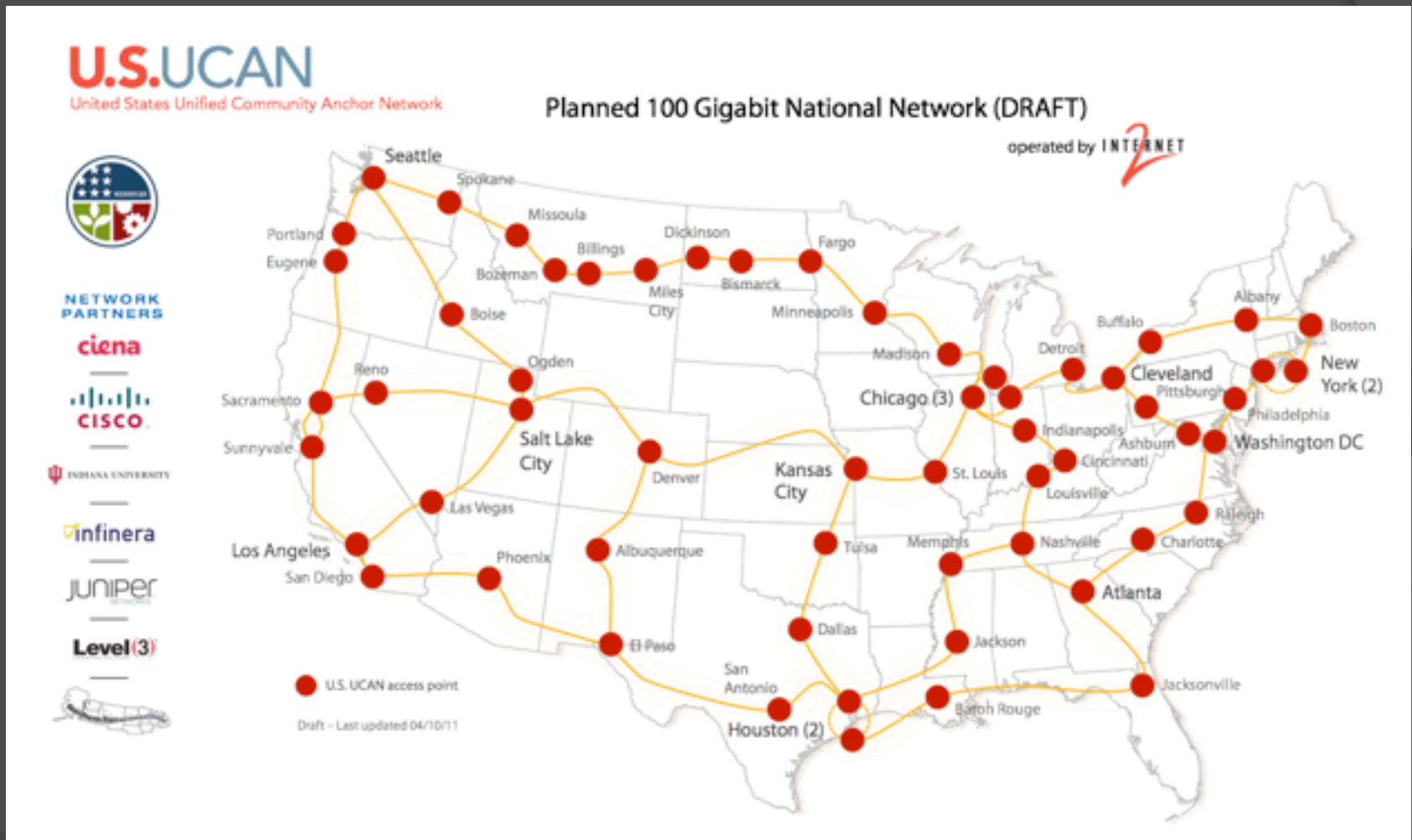
El Contexto Europeo: Algunas de las principales iniciativas

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)

El Contexto Europeo: Modelo de la Arquitectura de la Internet del Futuro
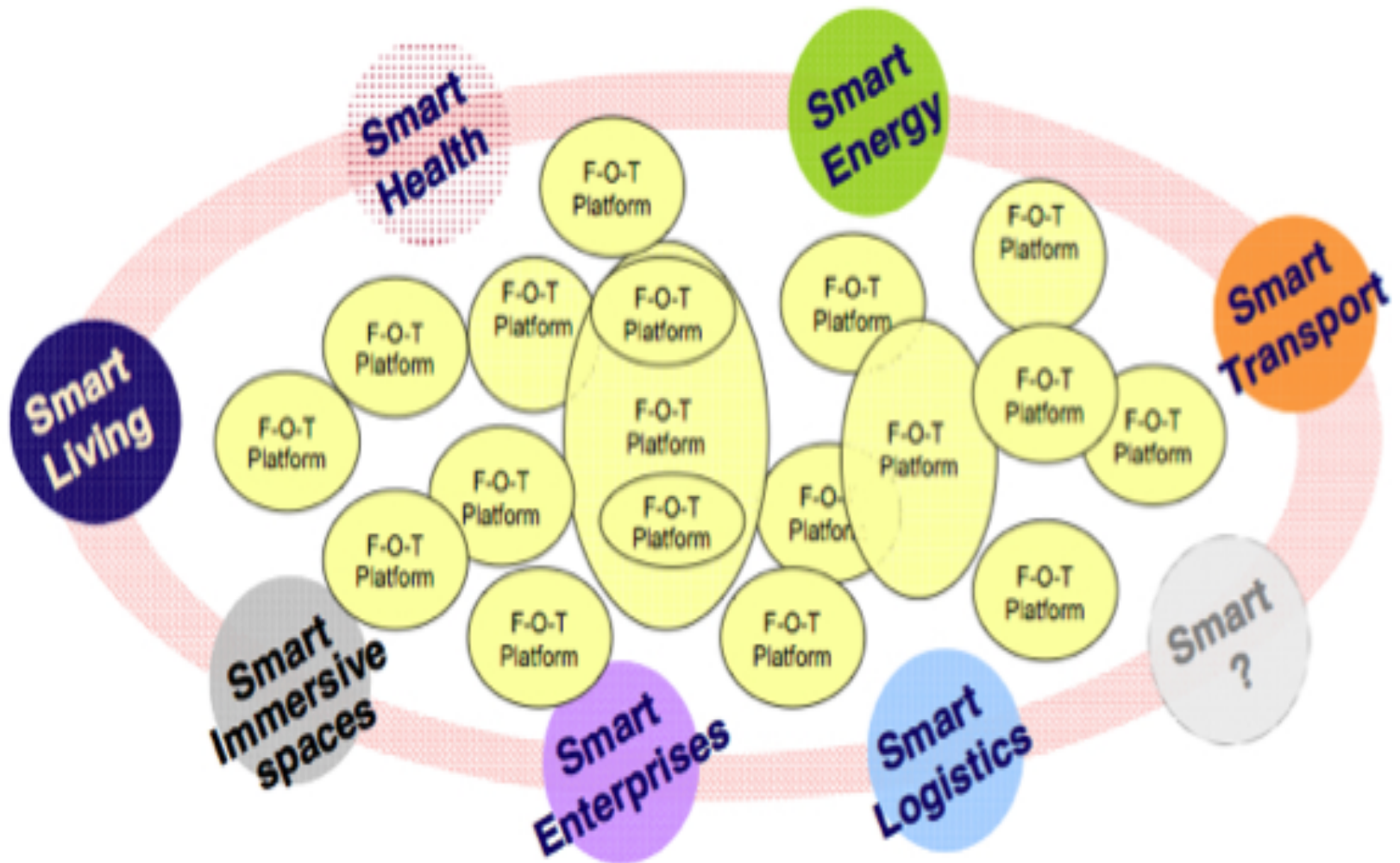
FI-PPP (Future Internet Public Private Partnership)

FI-PPP: Plataformas vs Areas de Aplicación
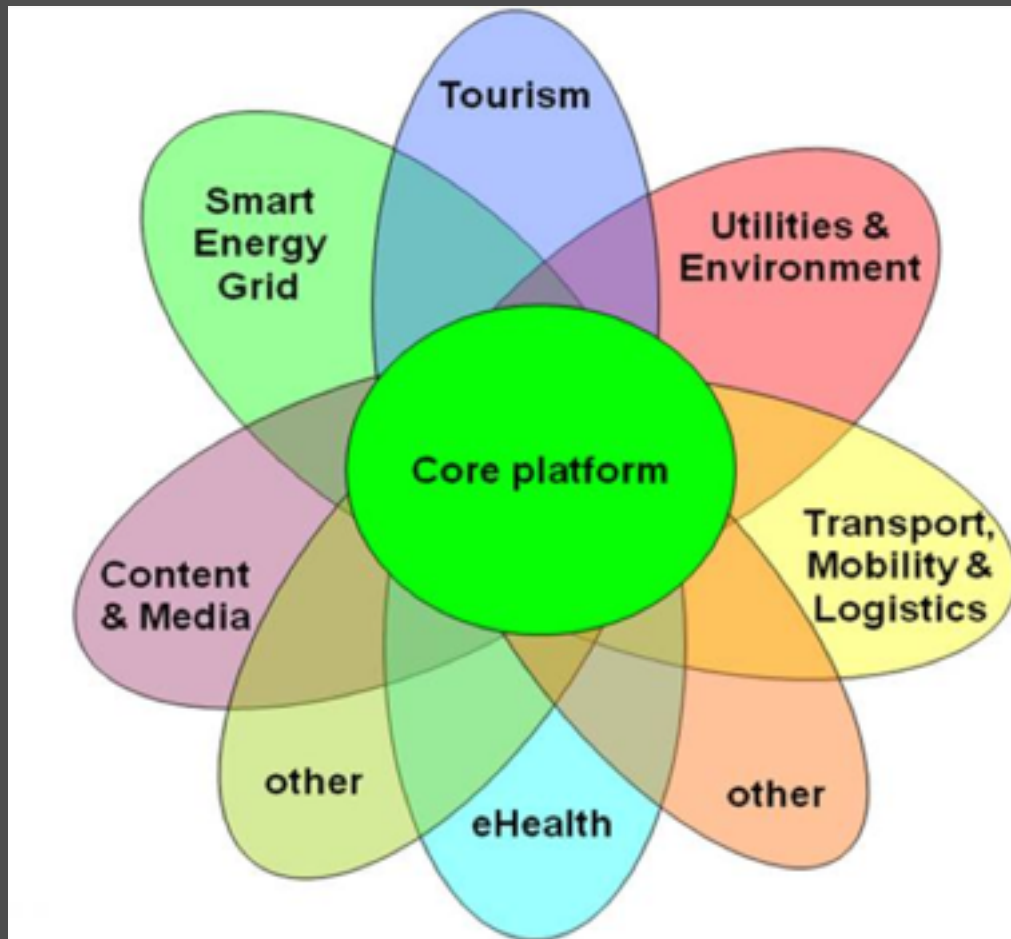
FI-PPP: Estructura del Programa
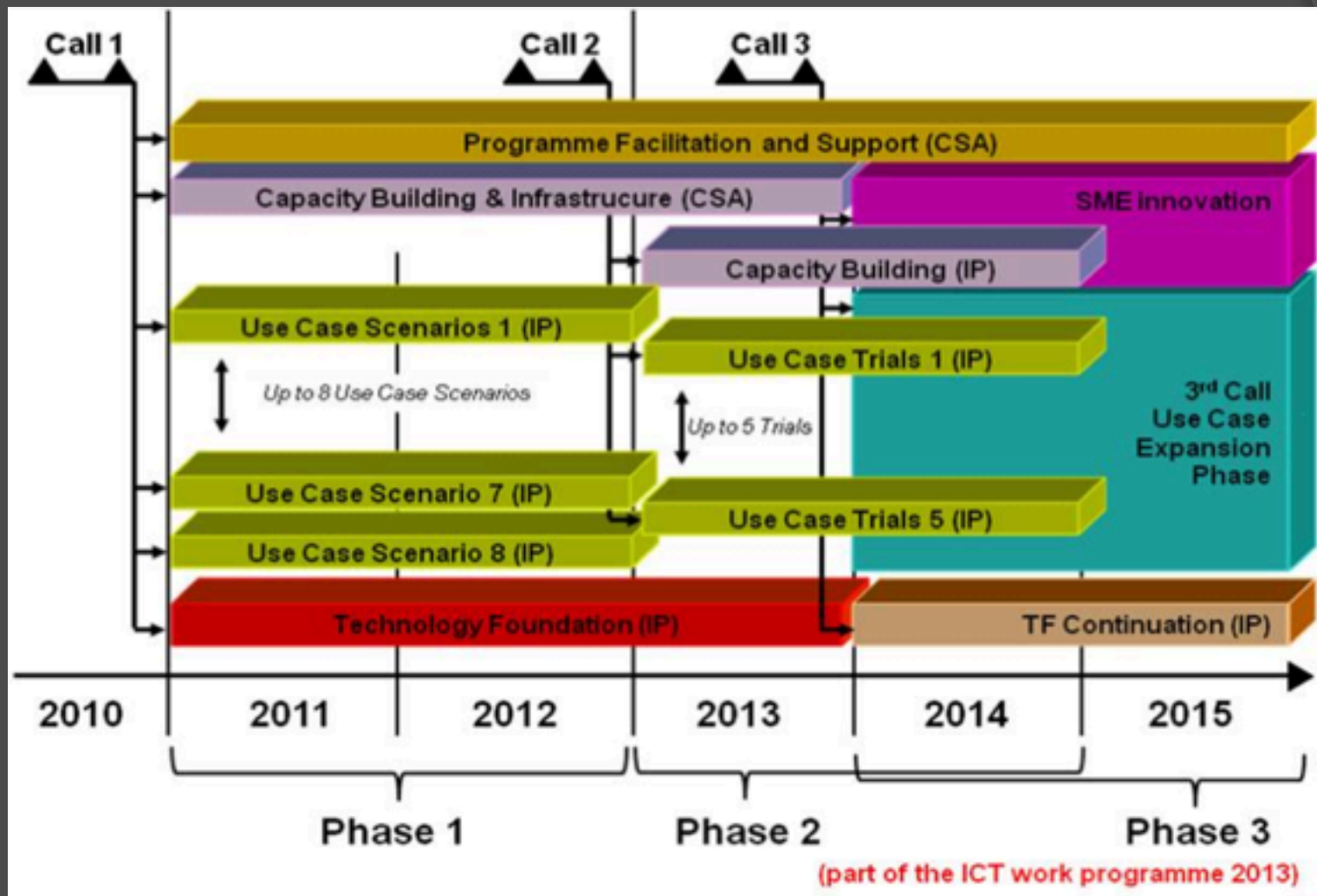
FIWARE: Modelo de capas (Xaas_ Saas + Paas + Iaas)

SaaS Provider

GE GE GE GE GE GE

PaaS Provider

GE

GE GE GE GE GE

GE

GE

GE

Infrastructure Provider (IaaS)

GE GE GE
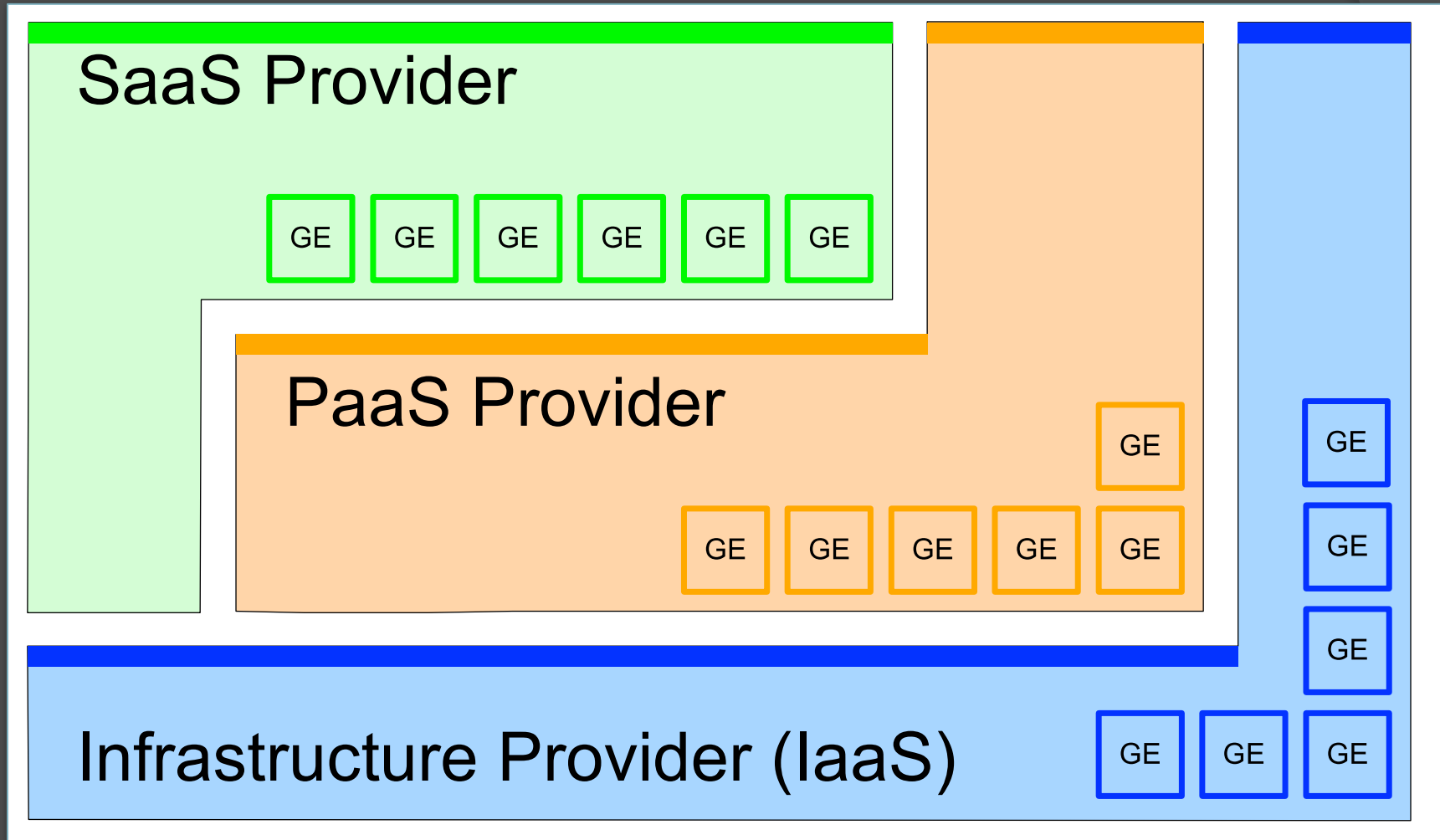
FIWARE: Arquitectura de la interfaz con la infraestructura
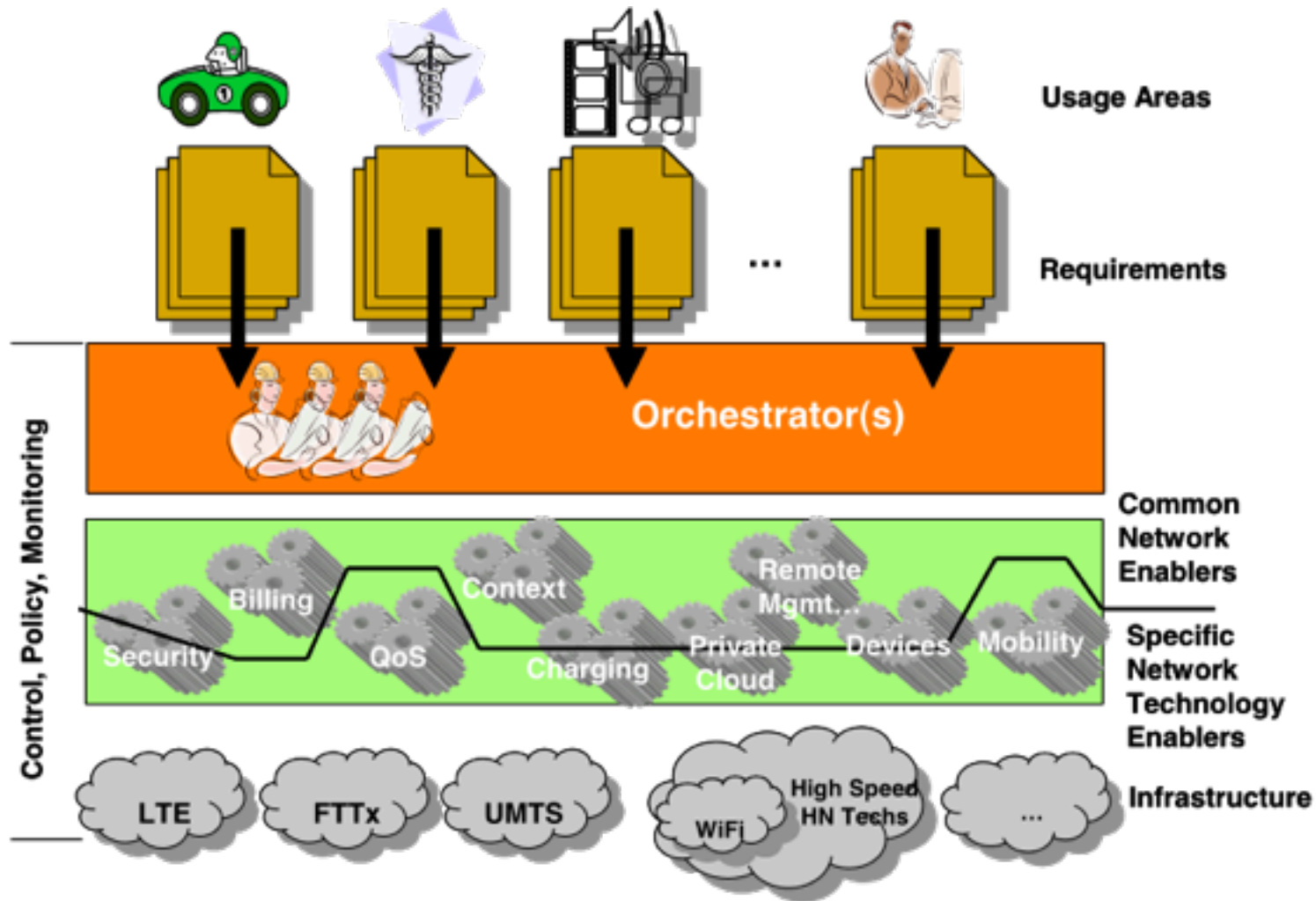
FIWARE: Elementos principales

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
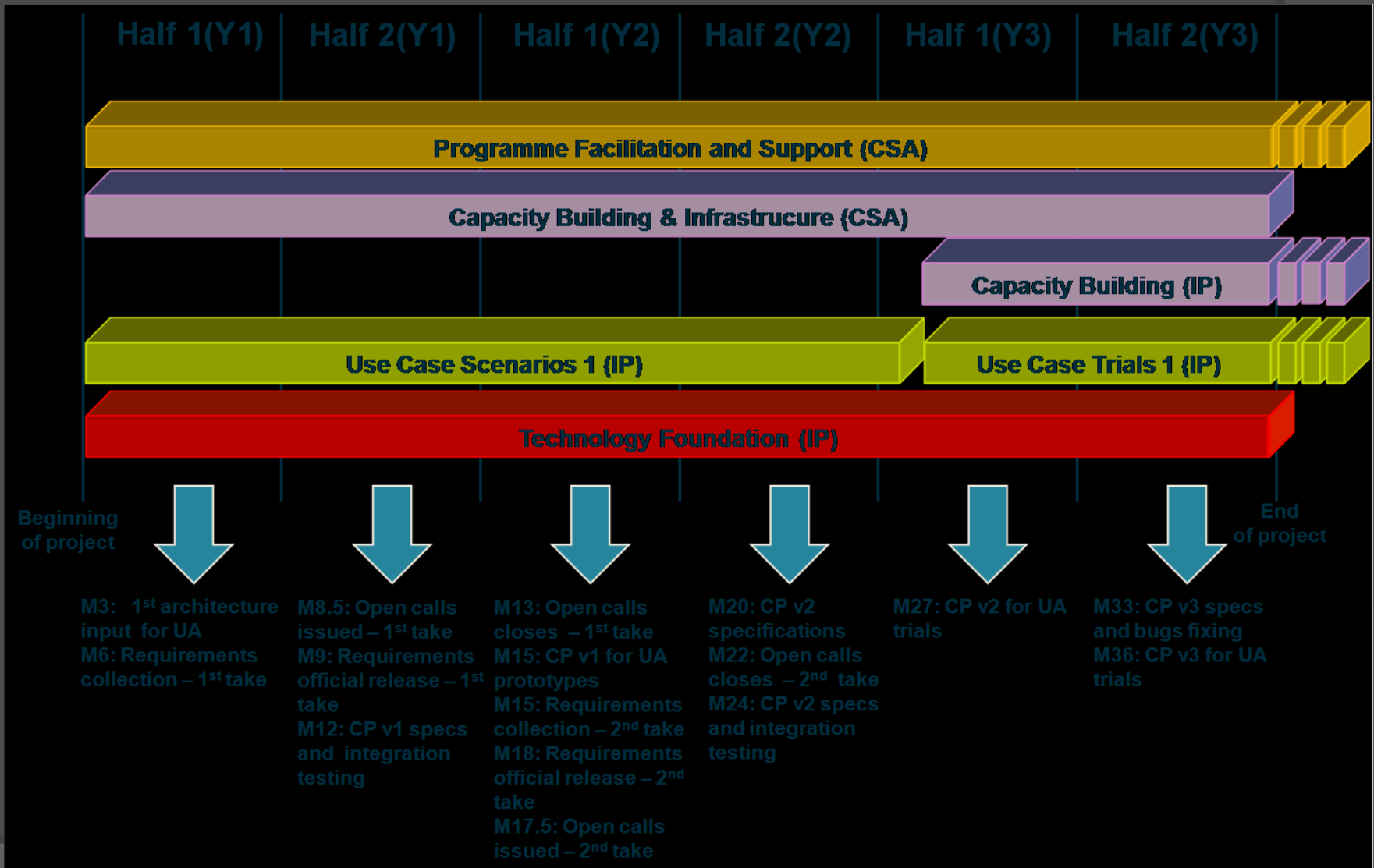
Conclusiones

- 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