The European
Future Internet Initiative

# The EUROPEAN FUTURE INTERNET INITIATIVE

# Shared Ambitions

- Contribute to sustainable growth and employment in knowledge intensive industries

- Foster a European technology base in Future Internet relevant technology and Service industries

- Provide an environment that empowers providers and citizens to develop and deploy services

- Accelerate the development of new networked based services for the citizens and consumer

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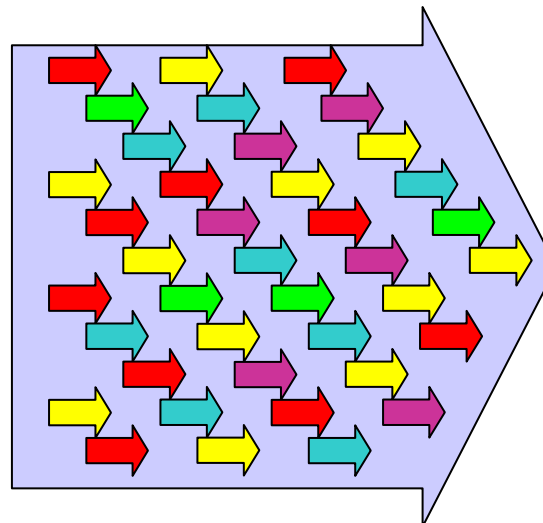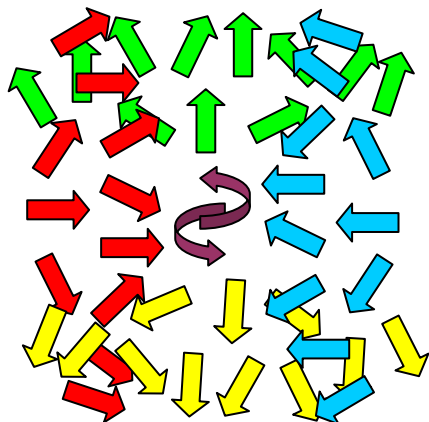# Main objectives of the FI PPP programme as proposed by EFII 1.

- Increase the effectiveness of business processes and the operation of infrastructures and applications of high societal value.
  - This should make use of reappraised internet architectures, services and technologies in large-scale application contexts,
- Address service architectures and platforms, building on the longer-term requirements of the Internet and encouraging European industry to address the challenges of smart infrastructures,…
  - …whilst contributing to EU policies in terms of innovation, sustainable growth, energy and environmental targets,
- Foster cross-sector industrial partnerships built around Future Internet value chains,
- Involving users and public authorities at local, regional and national levels,

3

# Main objectives of the FI PPP programme as proposed by EFII 2.

- Lever the Internet infrastructure as an open, secure and trusted platform for building networked applications on the basis of user-centred open innovation schemes,
- Maximise the societal benefit through involvement of civil society/consumer organisations where needed.
- Address regulatory and policy issues such as interoperability, openness, standards, data security and privacy within the context of the Future Internet complex and 'smart' usage scenarios.
  - This may also address the required methodologies, procedures and best practice needed to address transnational aspects such as cybercrime prevention
- Participation of the public sector in the PPP will be a key asset to progress in non-technological issues,
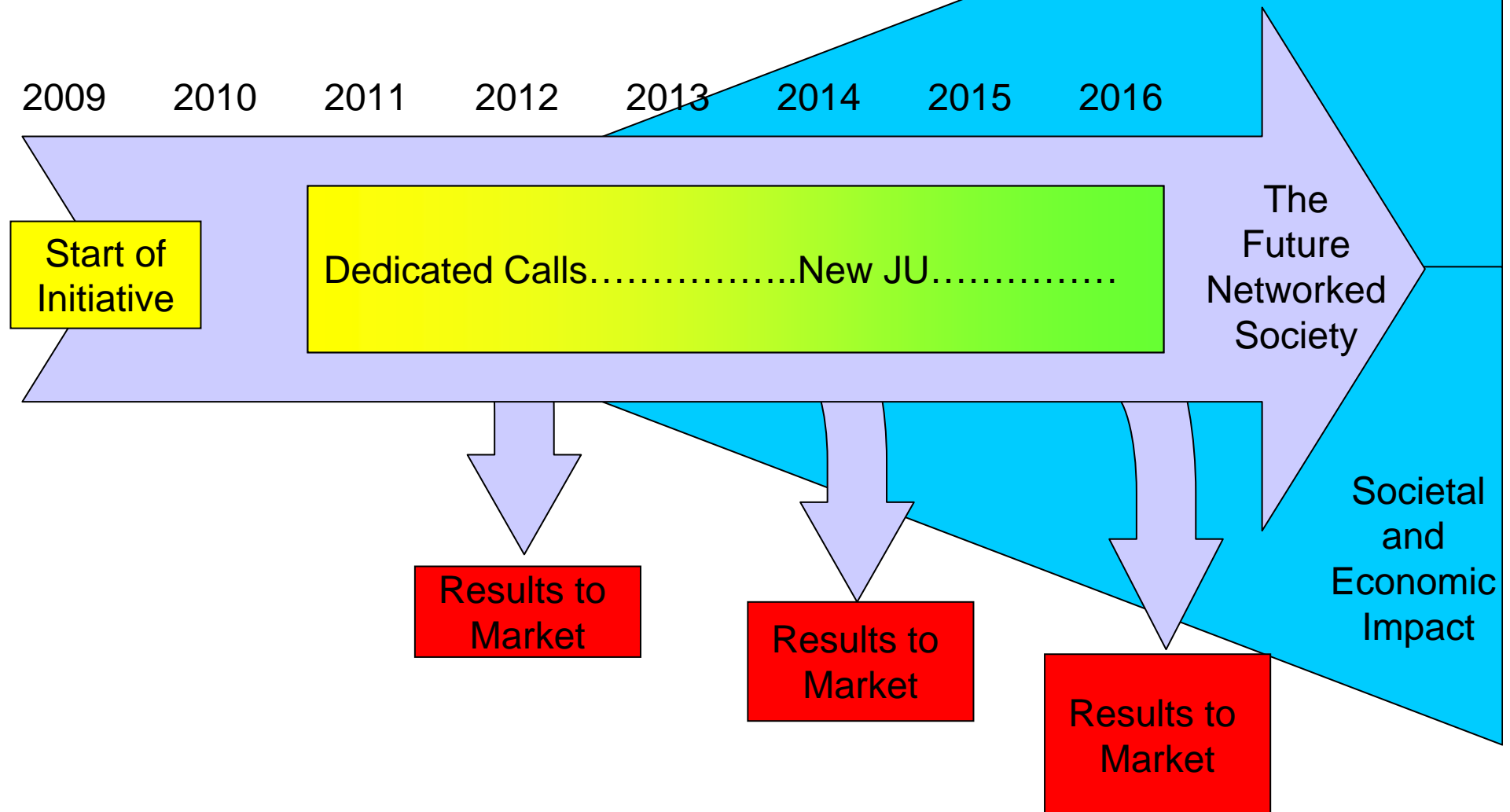
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# Cross Sector and Sustainable

- Stand alone solutions developed in any one sector, will not provide the efficiency and productivity gains that a networked solution will be able to provide and that the market can support.

- A multidisciplinary and integrated approach, where massively distributed services and applications are run over large scale and secure internet infrastructures is the only means to deal with the increasing complexity of intertwined application and service demands.

The
Future
Networked
Society

# European Initiative on Future Internet

2009   2010   2011   2012   2013   2014   2015   2016

Start of Initiative

Dedicated Calls……………..New JU……………

The Future Networked Society

Societal and Economic Impact

Results to Market

Results to Market

Results to Market

# Structure of the programme
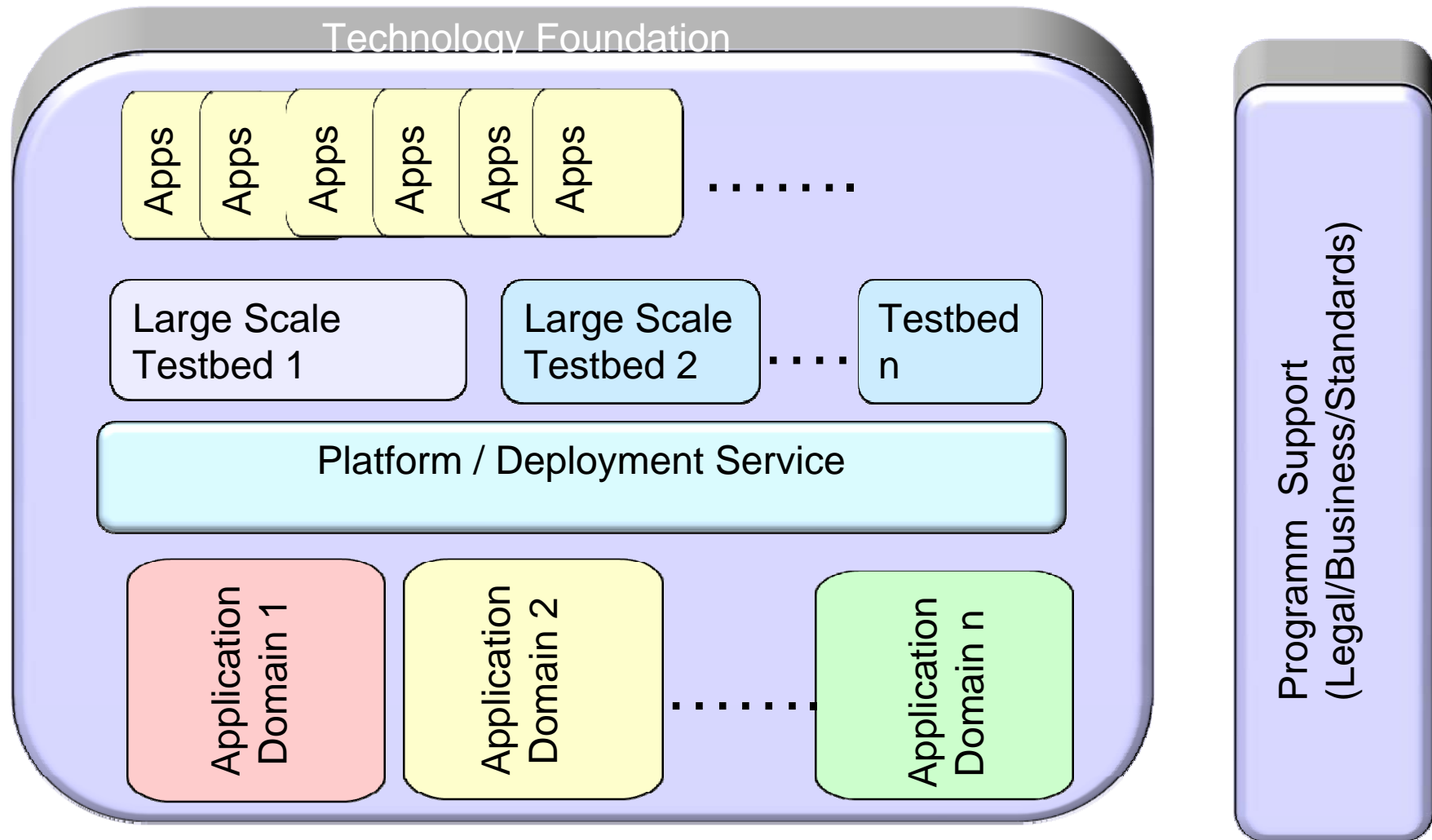
# Maximising the Common enablers

Smart
Energy
Grid

Utilities and
Environment

applications

Large Scale
Demos
and trials

Content

Transport,
Mobility and
Logistics

eHealth
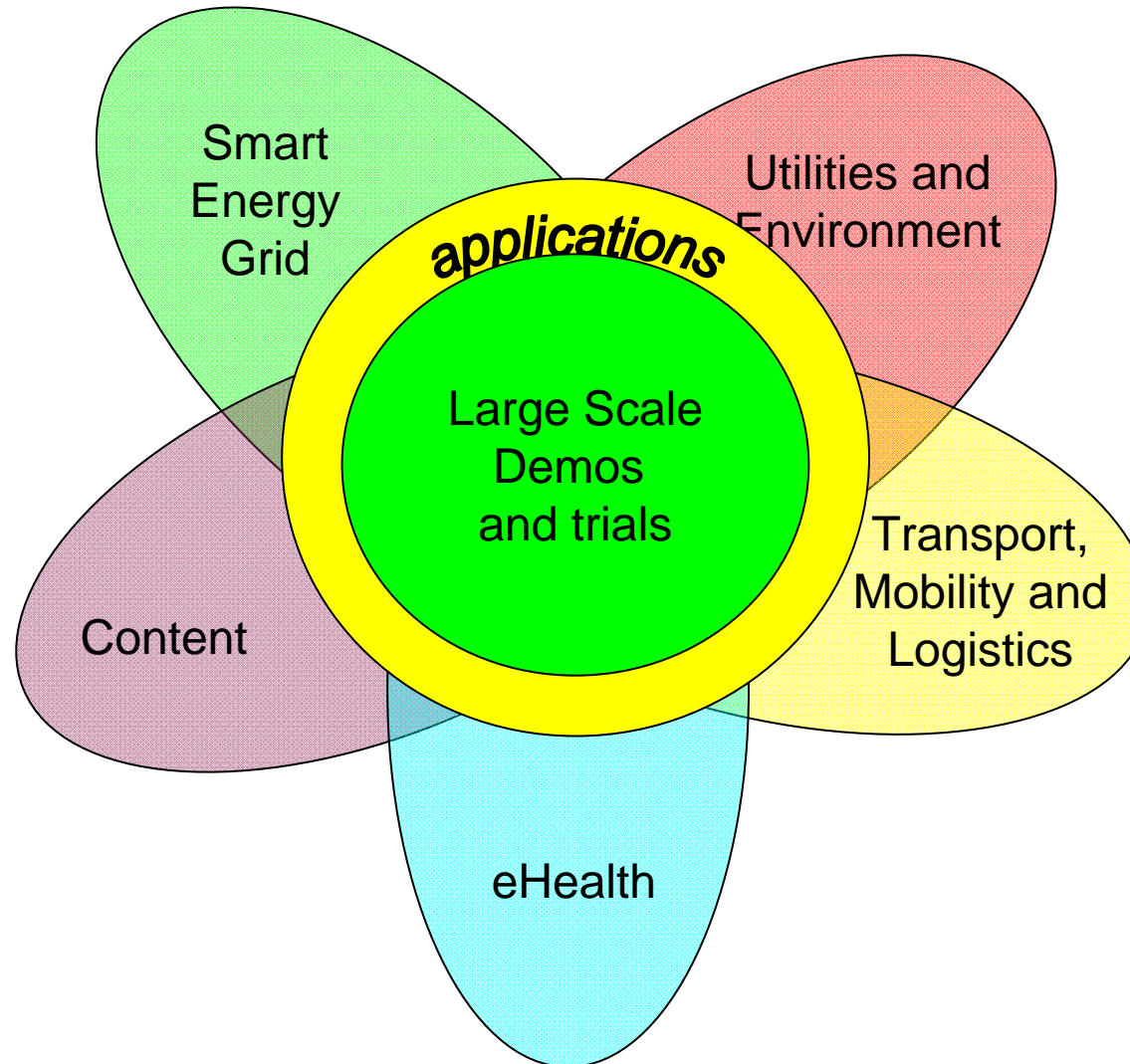
- Examine the basic enablers in each area
- Determine the common enablers
- Determine the  enhanced enablers
- Work out how to provide a core platform that supports the enablers
- Build it and show the world
- Use it in large scale trials and tests
- Use exisitng advanced infrastructures to test future Internet function

# Smart Energy Grid
## Test bed / Trial – Focus points

- **Scalability testing**:
  - many millions of households (prosumers)
  - many millions of electric cars
  - 10.000s of smaller and medium power plants (esp. renewables)
  - → not only a bandwidth problem but also a problem of complexity for control algorithms, management systems and data handling.

- **International interworking** for:
  - Responsiveness in case of a indicated blackout, global blackout prevention
  - Resilience of the whole system, stability management
  - Load / generation pattern prediction in connection with real-time configuration of adaptable balancing groups crossing international boundaries

# Smart Energy Grid
## Test bed / Trial – Ambitions

- **Ambition 1:**

  Setup a **pan-European Smart Energy Grid test environment** connecting **at least three Smart Cities** from different countries, **involving at least 100.000 participants** (from large scale power plants to residential prosumers) based on **at least 50% re-newable** energy production using the Future Internet test network for communication and control purposes within the **next 3-5 years**.

- **Ambition 2:**

  Develop a **pan-European black-out prevention** concept and **verify its functioning** through proper testing in the test bed/trial environment within the **next 5 years**

- **Ambition 3:**

  Enabling the European energy e-market. The **energy broker's role(s)** as well as the **interworking** with the residential end-users (prosumers), professional end-users as well as all considered energy sources (especially renewable ones) and storages **will be trial-wise implemented in the pan-European Smart Energy Grid test environment** within the **next 5 years**.
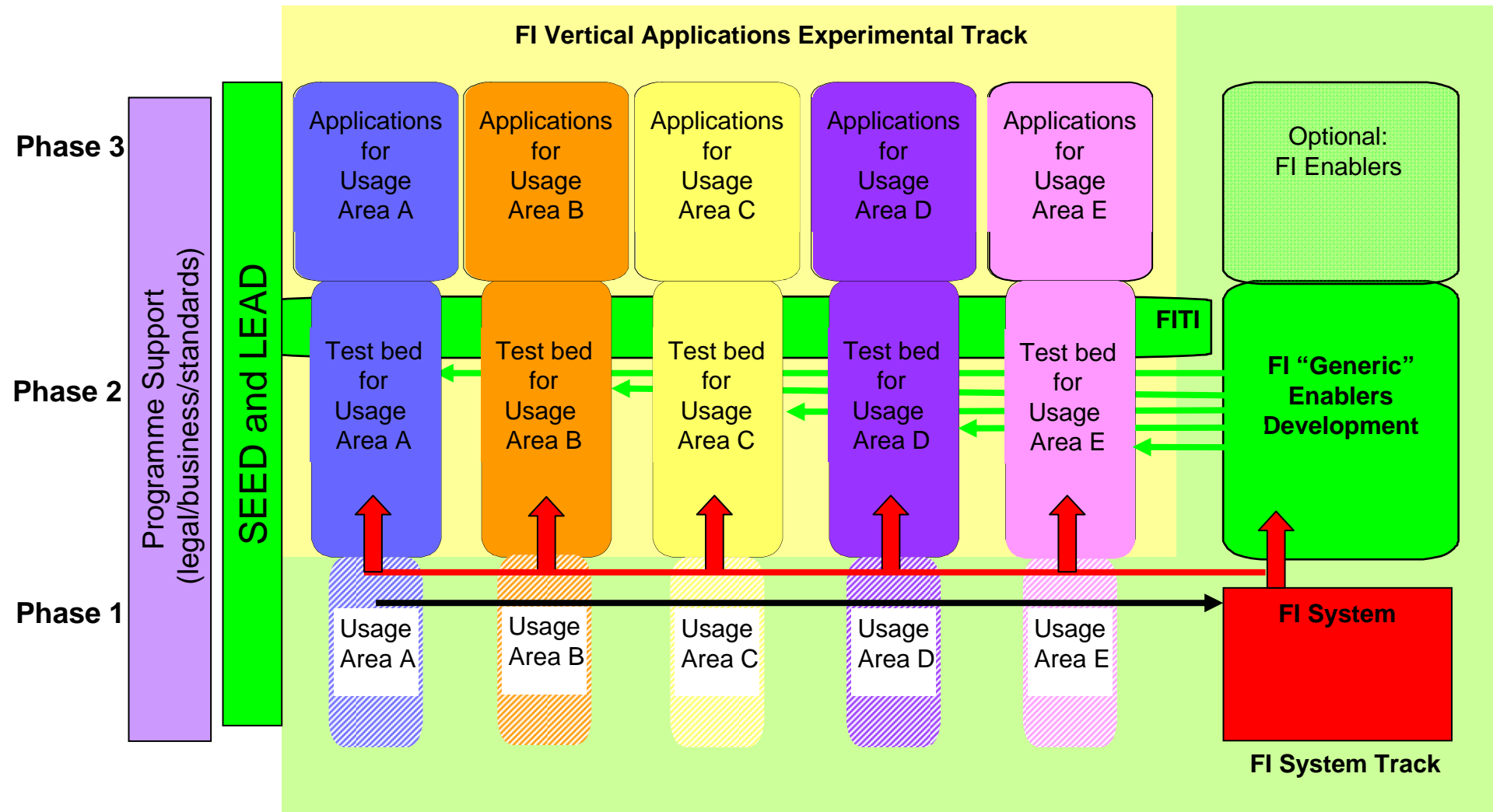
# Smart Energy Grid
# Test bed / Trial plans – Next steps

- Development of a comprehensive strategy for large scale testing
  - having in mind that large scale outage or even black-out prevention tests would badly influence peoples' life and do not seem to be suitable.
  - Combinations of real test beds with simulation/emulation could be an alternative

- Clarify mode of interworking with other existing initiatives:
  - Quite some activities are already ongoing, also in terms of pan-European Test bed set up, e.g.
    - FP7-ENERGY
  - Quite some Smart Grid Initiatives have been started (recently), e.g.
    - EU Smart Grid Task Force
    - SET / SETIS / European Industrial Initiative (EII) Smart Grid
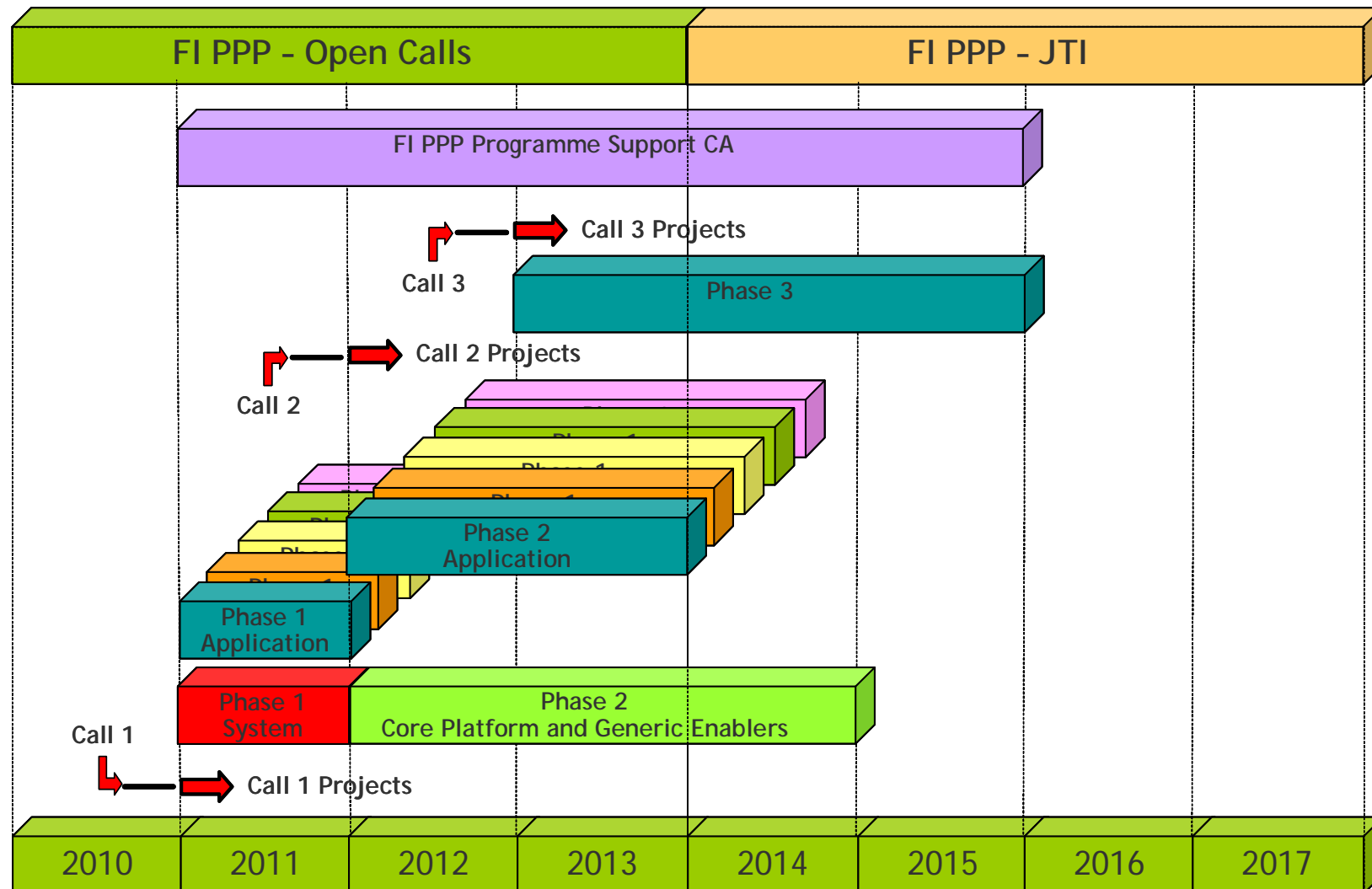    - CIP ICT PSP

# Our recommendations for the programme

- **Large scale projects**
  - Integration will not happen in many small projects
- **Flexibility in every stage**
  - The future Internet is a hard target to follow
- **Systematic approach to project selection**
  - Projects must contribute to the programmme and uniquely address aspects of the programme
- **Facilitate open sharing of project foreground**
  - IPR issues should not hinder collaboration
- **Integrate sector competence with the ICT competence**
  - The PPP target is to enhance all sectors with the Future Internet
- **Lead by example: large scale trials and demos**
  - Proving scalability and viability
- **Synergy: build on existing results and resources**
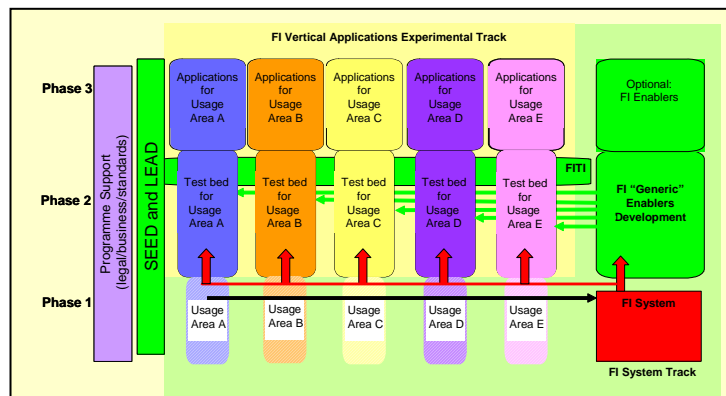  - Time and scale dictate using what we have already achieved in Europe.

# Structural View of the programme



FI Vertical Applications Experimental Track

**Phase 3**

| Applications for Usage Area A | Applications for Usage Area B | Applications for Usage Area C | Applications for Usage Area D | Applications for Usage Area E | Optional: FI Enablers |

FITI

**Phase 2**

Programme Support (legal/business/standards)

SEED and LEAD

| Test bed for Usage Area A | Test bed for Usage Area B | Test bed for Usage Area C | Test bed for Usage Area D | Test bed for Usage Area E | FI "Generic" Enablers Development |

**Phase 1**

| Usage Area A | Usage Area B | Usage Area C | Usage Area D | Usage Area E | FI System |

FI System Track

# Timeframe/Schedule

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| FI PPP – Open Calls | FI PPP – JTI |
|---|---|

**FI PPP Programme Support CA**

Call 3 Projects

Call 3

Phase 3

Call 2 Projects

Call 2

Phase 1

Phase 1

Phase 2
Application

Phase 1
Application

Phase 1
System

Phase 2
Core Platform and Generic Enablers

Call 1

Call 1 Projects

| 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |

# The Future Internet area



Regulation
Public Procurement
Open markets
Open interfaces
Standardisation

National Trials,
Test Infrastructures
Structural funds
Regional development
Enterprise support

Education
Promotion
Stimulation
Exploitation

# European Future Internet Initiaitve

**Our discusson Goals:**

- Creating a community in 2010
- Invitations to workshops on applications, enablers, and infrastructures.
- Determining the focus points, challenges, and optimal structures
- Encouraging innovation in structures as well as projects
- Position paper by end of Year
- Workshops in the new year

**www.future-internet.eu**

Alcatel·Lucent

Atos Origin

BT

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EURESCOM

ENGINEERING

Nokia Siemens Networks

SAP

THALES

orange

ERICSSON
TAKING YOU FORWARD

TELECOM ITALIA

NOKIA

SIEMENS

Telefónica
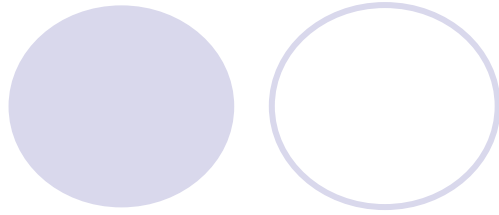Telefónica Investigación y Desarrollo

THOMSON
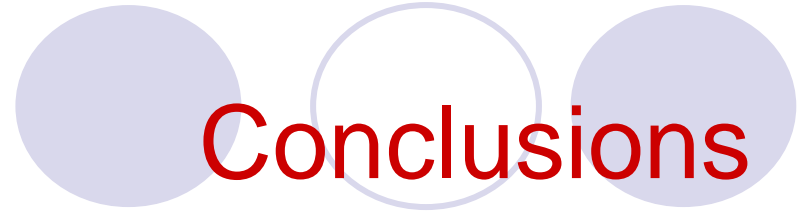
- We can accelerate take-up through demonstration

- We can gain technical and economic leadership for Europe

- We can create the framework for a new form of PPP in FP8