



# Smart Grid Task Force EG4 Infrastructure Development

CEF – a common infrastructure fund to  
deploy smart interconnected transport,  
energy and digital networks

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## **BB Infrastructure financing needs**

***Investment needs:*** Up to €270 billion to bring ultra-fast broadband to all households by 2020. Without the stimulating effect of CEF the market plans to invest no more than €50 billion by 2020.

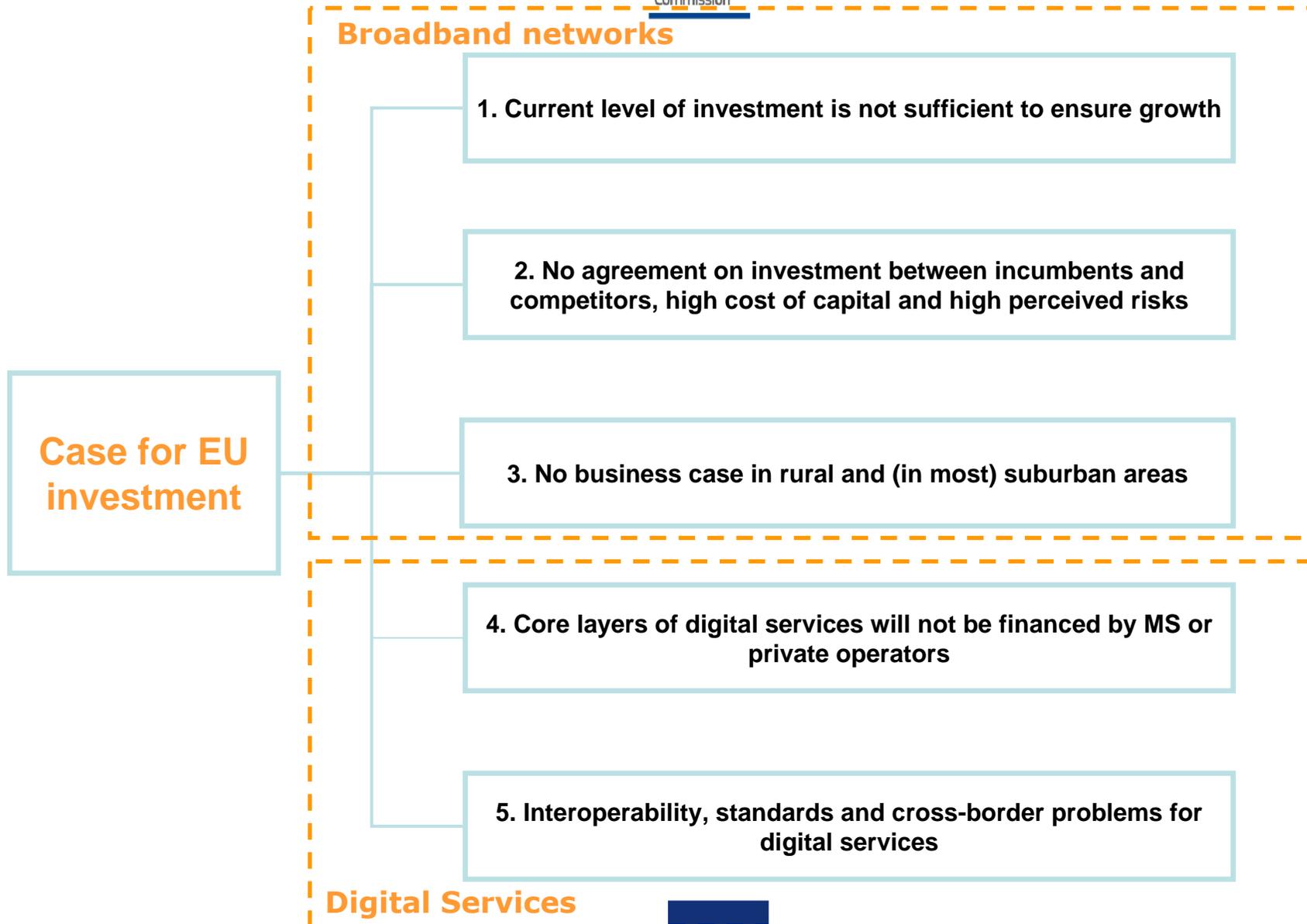
***Budget envelope:*** 9.2 BL € in the field of telecommunications

***Instruments:*** market based (financial) instruments and grants

***Leverage effects:*** 6-7x in ICT (permits to reach eg 45 million households with BB)



# Problem definition: Why investing in digital infrastructure ?

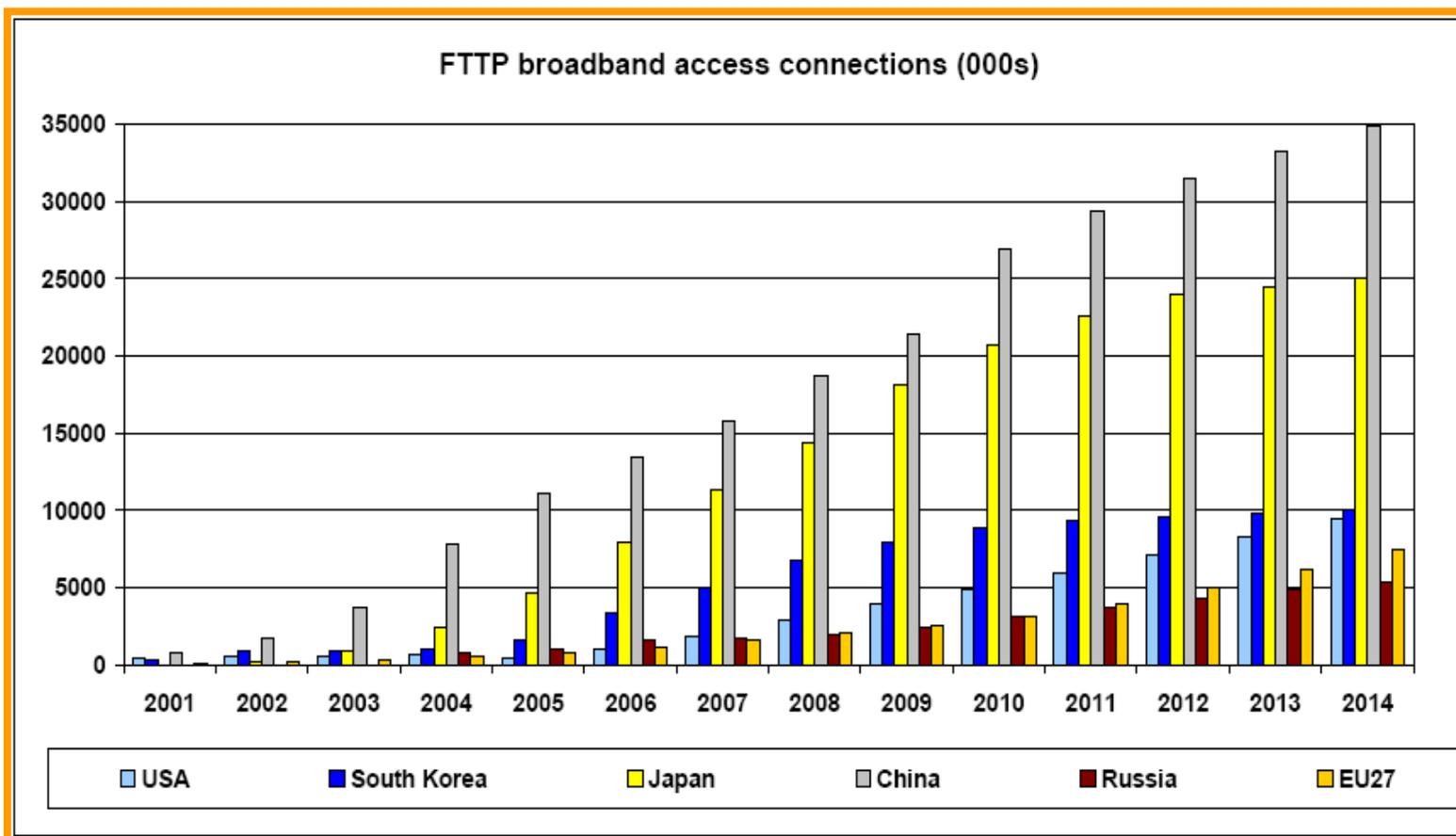




European  
Commission

# Potential supply gap

...EU well behind





# Priorities for Projects of Common Interest (PCI)

- *Actions allowing to achieve synergies and interoperability between different PCI:*
  - in the field of Telecommunications
  - concerning different types of infrastructures, including Transport and **Energy**
  - in the field of Telecommunications and projects supported by Structural and Cohesion funds
  - relevant research infrastructures.
- *Support to core service platforms in the field of digital service infrastructures*





## Projects of common interest for broadband infrastructure:

*Exploitation of potential synergies between the roll-out of broadband networks and other utilities networks (energy, transport, water, sewerage, etc.) **in particular those related to smart electricity distribution.***





# ICT Services of public interest

- Trans-European high-speed backbone connections for public administrations
- Cross-border delivery of eGovernment services (eID, eHealth, eProcurement, network of registers)
- Enabling access to public sector information and multilingual services
- Safety and security
- Deployment of ICT solutions for **intelligent energy networks and for the provision of Smart Energy Services**





## **Actions contributing to the project of common interest**

*Digital service infrastructures shall contribute to the realisation of digital single market by removing existing bottlenecks in terms of service deployment.*





## PCI for smart energy services infrastructure:

- **Core Service Platform** – deployed by **utilities in partnership with telecom operators**
  - Monitoring of assets, control for power management, automation and data management
- **Generic Services** – delivered by wide range of new and innovative actors
  - Smart metering infrastructure – to measure and communicate information on energy consumption
  - Software agents able to decide when:
    - to buy/sell energy
    - to switch on/off appliances in function of price signals from the energy provider, whether forecast information, data management and communication, ...





# Roll-out of high speed networks - stakeholders

## **Infrastructure promoters**

- incumbents
- newcomers
- utilities
- public authorities
- Partnerships, including PPPs

## **Regulators/Commission/BEREC**

## **Financial sector**

- Banks
- Equity funds
- Pension funds/insurance companies (project bonds)
- Investors (representing shareholders)





# Spectrum aspects on Smart Grids

## ***Radio Spectrum Policy Programme (RSPP):***

- **Art. 8(2) of the RSPP refers to the potential of wireless technologies for improving energy saving and efficiency of smart energy grids and smart metering systems;**
- **RSPP is to be formally adopted next week (as a Decision of the EP and the Council), and once it enters into force (~April) it will provide a legal basis for:**
- ***An initiative on **Spectrum for more efficient energy production, distribution and usage:*****
  - > *Public Consultation ongoing: 23 Jan - 18 Apr 2012;*
  - > *Impact assessment will follow (until autumn 2012);*
  - > *Possible way forward, depending on IA conclusions:*
    - **~mid 2013: Commission Communication, including:**  
views on useful future actions w.r.t. spectrum for Smart Grids; guidelines on measures, if any, that should be taken; ...
    - **In 2013: If necessary, further work could be done in the Radio Spectrum Committee together with the EU MS.**



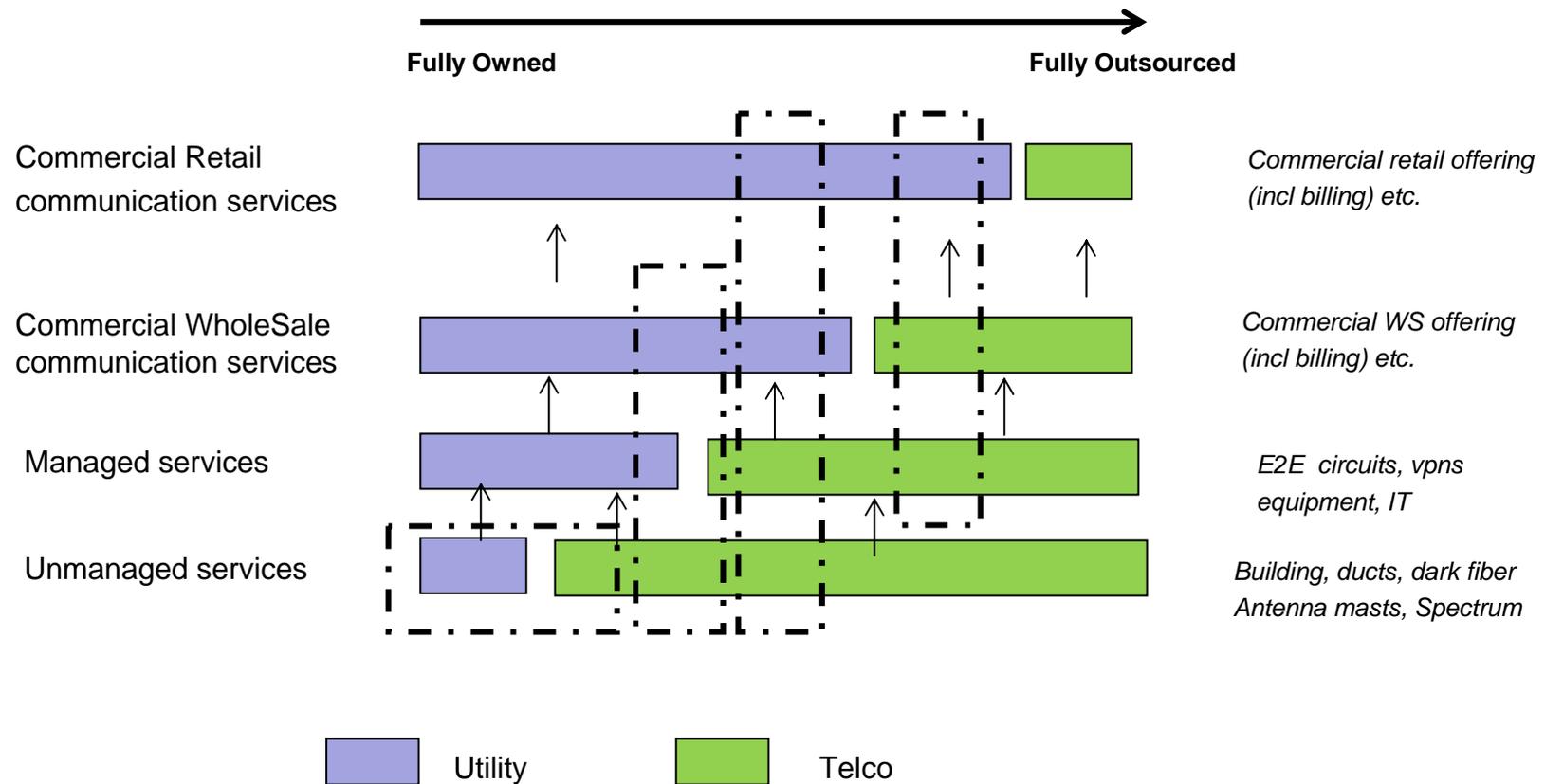
## **Working Group with Electricity Utilities and Telecom Companies**

A number of potential areas for collaboration between DSOs and Telcos, for which the CEF could be a source of funding:

- scale, design, scope and eventual stakeholders of the collaborative projects between the DSOs and Telcos
- exploitation of BB networks or their eventual roll-out in cooperation with the roll-out of smart grid networks
- smart metering services over last-mile connection (“broadband for everyone”)
- sharing of common infrastructure – e.g. poles and ducts
- cost sharing – civil engineering, ground works etc
- DSOs deploying fibre for network operation (effectively a back-haul network) on which Telcos build access networks.



# Co-operation models (examples)



Source: EUTC



**Thank you for your attention**

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