

# Progress in IPv6 Research and Development in Europe

IPV6 Global summit Beijing

***Ulf Dahlsten***

欧盟信息社会和媒体总司  
新兴技术、基础设施与应用处  
处长

***DG INFSO F Emerging Technologies and Infrastructures***



# Organisation of the European Commission

中欧

## POLITICAL

Economic & Financial Affairs  
Agriculture  
Environment  
Competition  
Education & Culture  
Employment & Social Affairs  
Energy & Transport  
Enterprises

Taxation & Customs  
Justice & Internal Affairs  
Internal Market  
Fishing  
Regional Policy  
*Research*  
Health & Consumers protection  
*Information Society and Media*

## FOREIGN AFFAIRS

Foreign Affairs  
EUROPAID

Trade  
Development Enlargement



# 欧洲委员会组织

## 政治

经济金融事务

农业

环境

竞争

教育及文化

劳工及社会事务

能源及交通

企业

税收&海关

法律 & 内部事务

内部市场

渔业

区域政策

科研

健康及消费者保护

信息社会和媒体

## 外交事务

外交

欧洲援助

贸易

发展扩大



# Directorate General Information Society and Media activities

中欧

- i-2010 The Single European Information Space,
- Telecommunication regulatory framework,
- Media policy



# 信息社会和媒体总司的活动

电子欧洲 i-2010 欧盟信息化总体战略

通信法规框架

媒体政策



- Supported through *Framework Programmes (FP)*
- Major strategic reorientations and financial scope decided at the beginning of each FP
- FP6 covers 2002 to 2006 (3.825 B€)
- FP7 covers 2007 to 2013 (9.080 B€)

# 研究活动和欧洲委员会

- 连续得到框架计划 (FP) 支持
- 每一个框架计划之始进行主要战略再定位并确定金融范围
- 第六框架计划 (FP6) 2002~2006 (38.25亿欧元)
- 第七框架计划 (FP7) 2007~2013 (90.8 亿欧元)



# EU - CHINA Political Framework and commitments

中欧

- Joint Declaration (1997)
- A Memorandum of Understanding (1998) signed by EU Vice President and Executive Vice-Minister of MOFTEC
- Science & Technology Co-operation Agreement (1999)
  - *Rules for participation of Chinese organisations*
    - *conformity with the interests of the EU*
    - *substantial added value for implementing EU Sciences Policy*
    - *cooperation with a minimum number of legal entities from EU and Associated States.*
    - *with possible EU funding as INCO target country*
- Joint Declaration (2002) signed by Minister of MOST and EU Commissioner for Information Society & Enterprise





# Chinese participation in the IST Programme

## THEMES:

**Data Fusion for flood analysis and decision support**

**Usability support network**

**Low Cost satellite based train location system**

**China Europe Manufacturing Network on the Net**

**EU-China IST initiative in the field of e-commerce and e-work**

**Development of an Interactive Engineering Portal for Open Networks**

## ORGANISATIONS:

**Beijing University Of Aeronautics And Astronautics**

**Tsinghua University**

**Nanjing University Of Science And Technology**

**Xi An Jiaotong University**

**Harbin Institute Of Technology**



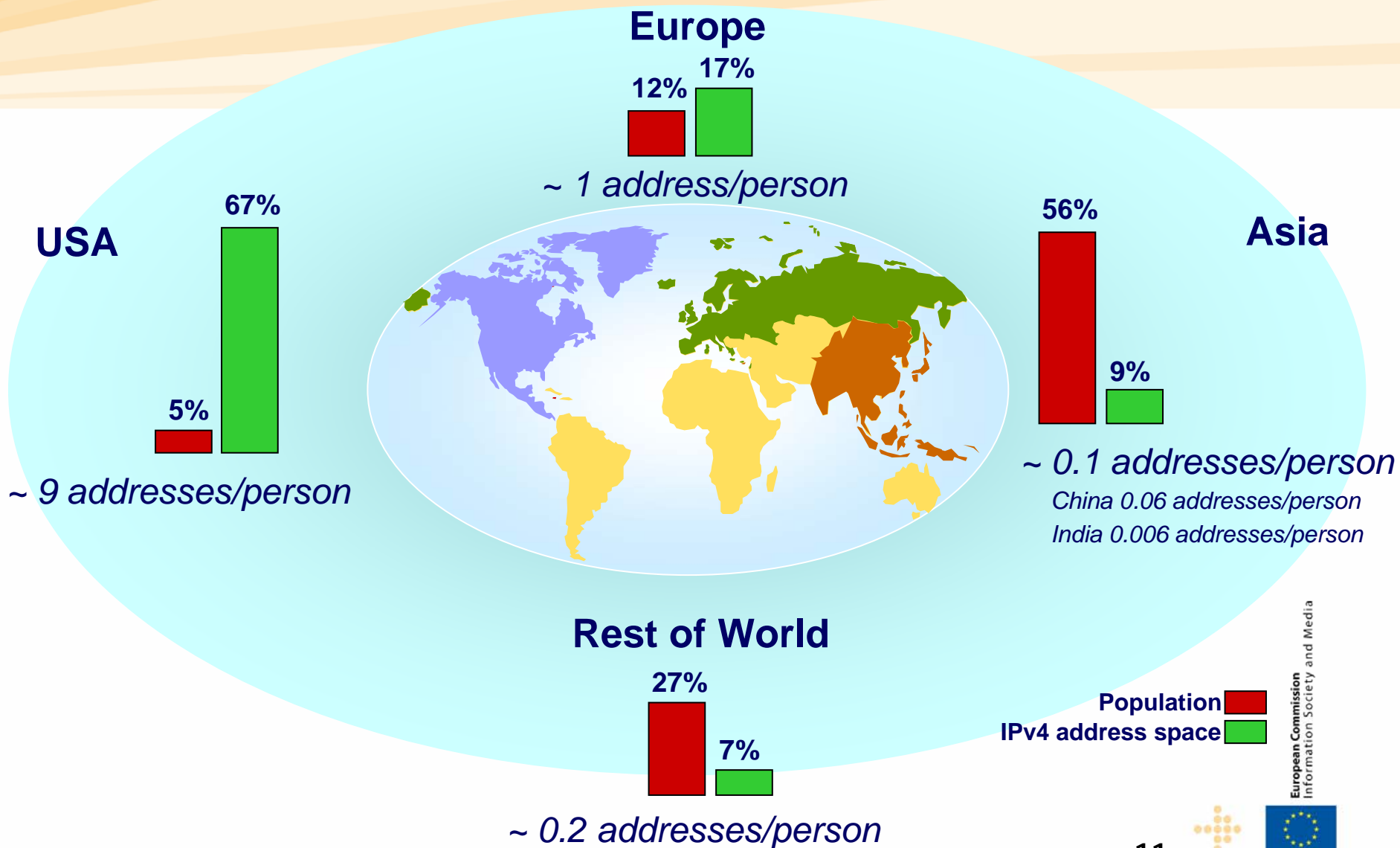
# Policy aspects related to IPv6

- **European IPv6 Task Force April 2001**
- **Communication to the Council in February 2002**
- **Renewal of the mandate of the IPv6 Task Force in June 2004**
  - International standardisation organisations
  - “European IPv6 Roadmap”
  - Global collaboration with similar initiatives
  - Social impact on society, citizens and business
  - Security issues related to IPv6
- **New Communication to the Council next July 2007**



# The IPv4 world view

中欧



# The benefits of IPv6

中欧



**Restoration of end-to-end connectivity – IPv6 has enough space for every device on Earth to have a unique IP address and thereby make every device individually accessible**



**Mobile IPv6 inherently integrated into IPv6**

- Seamless hand-over (GPRS, 3G, and Wi-Fi)
- Simpler solutions for connectivity



**Security – IPv6 enforces use of security (IPsec)**



# IPv6 – turn potential into reality!

中欧

The introduction of IPv6 in European industry and commerce:

## Necessary

IPv4 is limiting the development of new Internet services and products and contributing to the “digital divide” .

## Urgent

It is key to be early to market with new services/applications exploiting IPv6. The Far East – China, Japan, Korea are already taking the initiative and Europe and the US face being left behind.

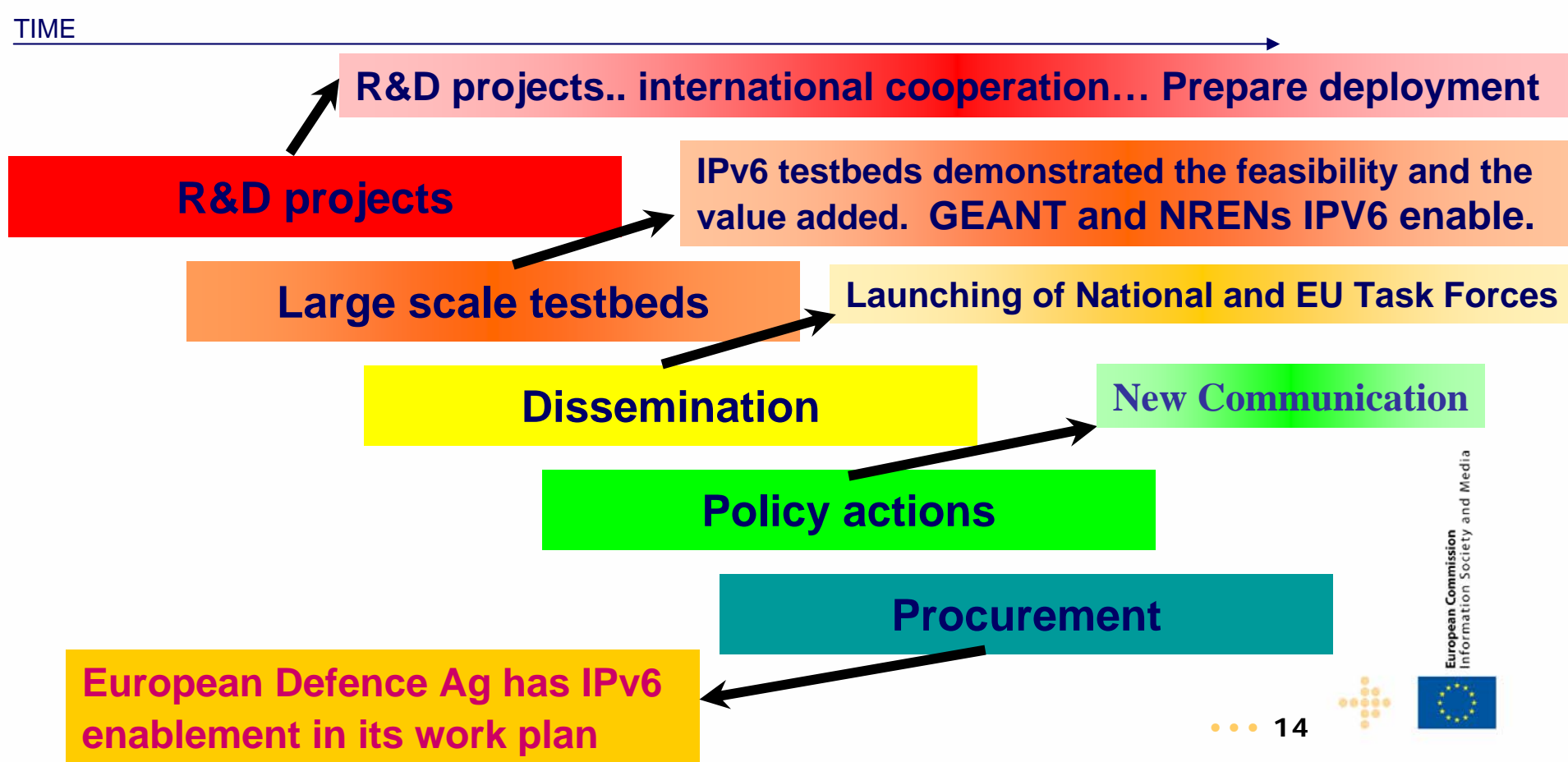


# Where we are in Europe ?

## European steps..

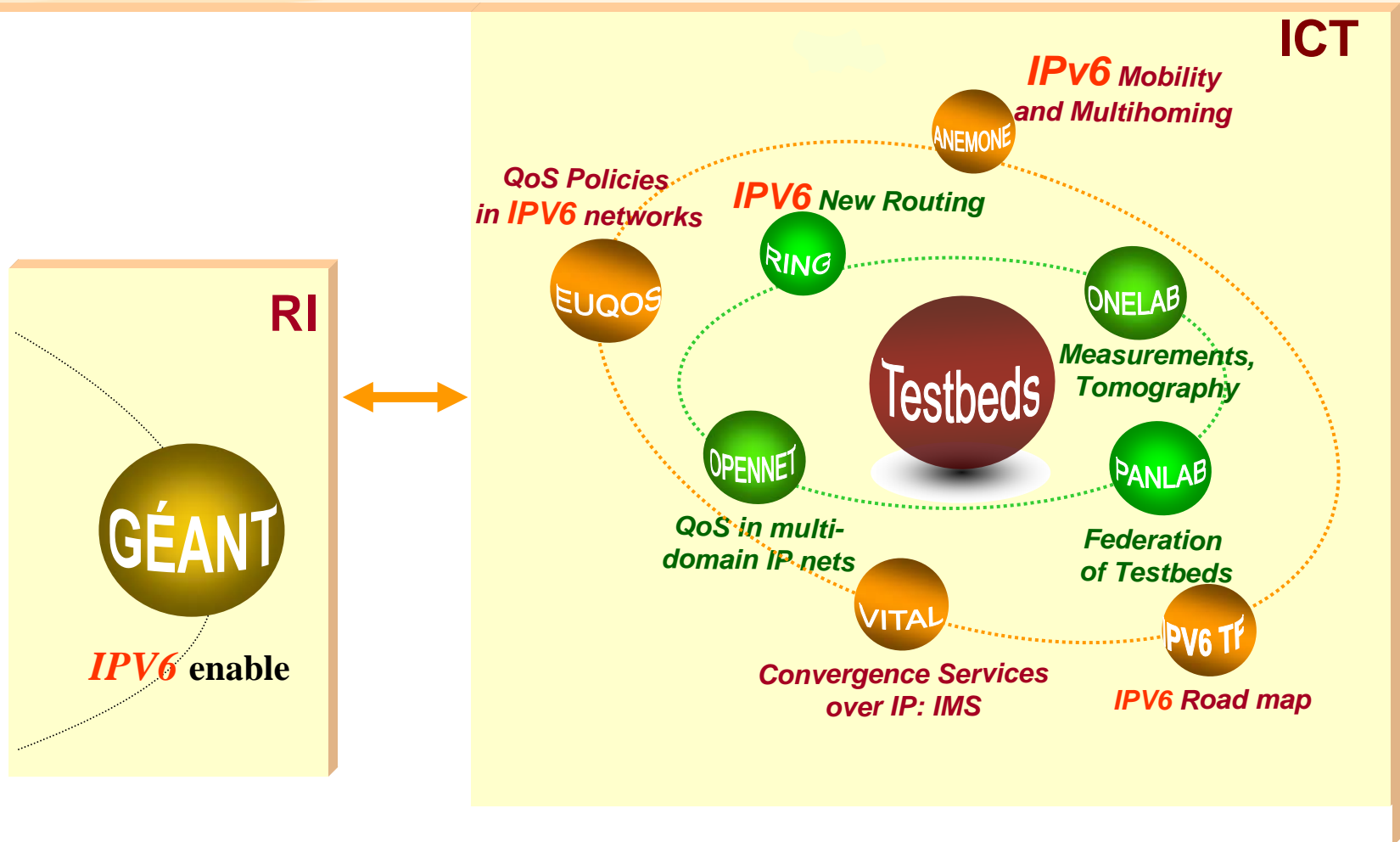
中欧

Focus of R&D moving from research to industrial uptake



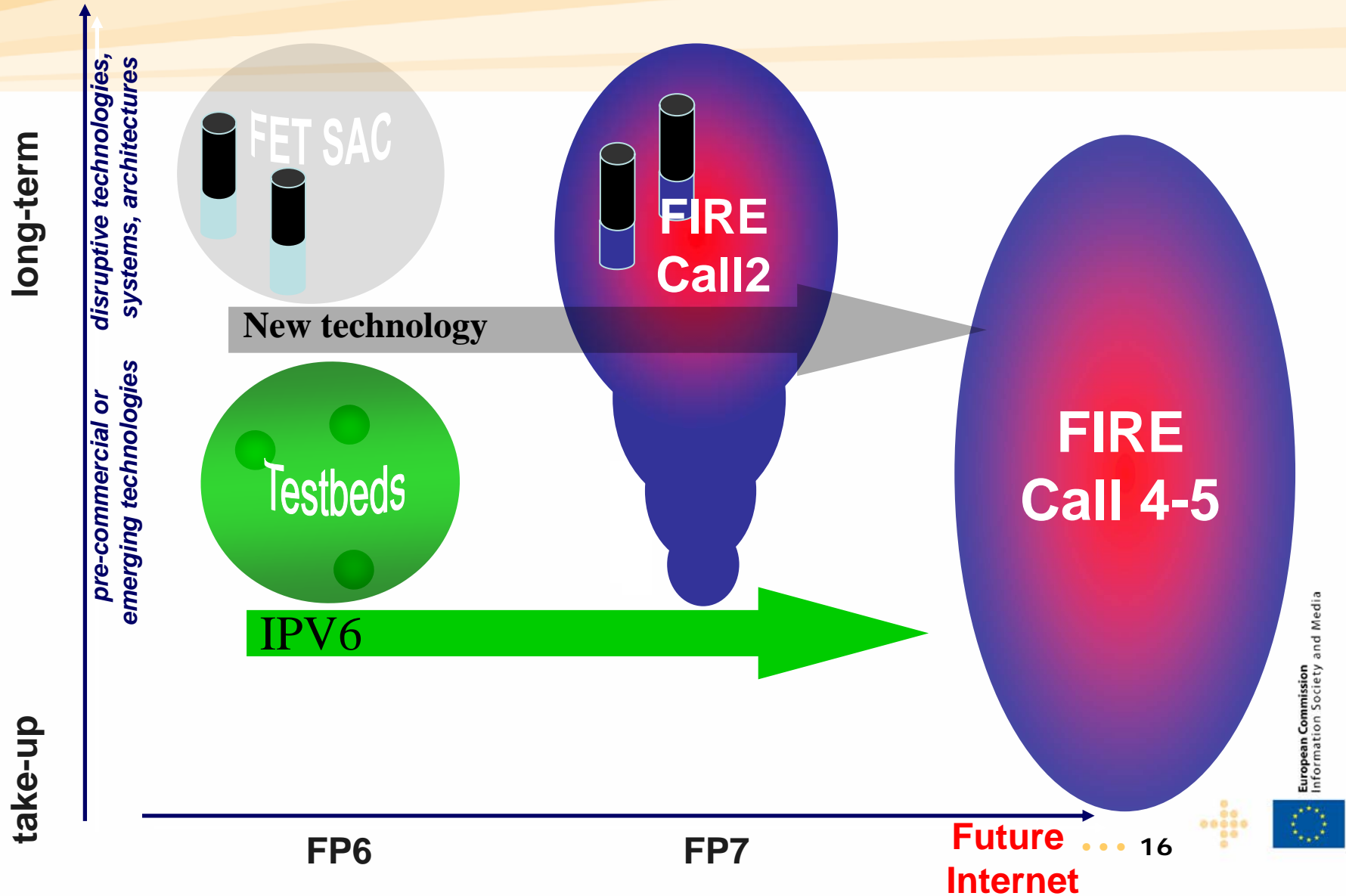
# Testbeds in FP6 IPv6 pave the way...

中欧



# FIRE strategy

中欧





# EU-China opportunities for cooperation

中欧

## EU R&D Programmes

**IPv6 and FIRE**

**GÉANT2**

**Grid infrastructures  
(EGEE, DEISA,..)  
Grid research projects**

## China R&D Programmes

**Chinese  
Future Internet**

**CERNET2**

**CNGrid  
China Grid**

...

Cooperation between R&D projects  
Chinese / European cross participation in projects  
Consolidation of an interlinked eInfrastructure



Let's cooperate to shape the future internet!

中欧

謝謝



[ulf.dahlsten@ec.europa.eu](mailto:ulf.dahlsten@ec.europa.eu)

