IPv6 Global Summit Japan

Yokohama – 19-12-2002

FP6 over IPv6

Pascal Drabik

DG Information Society – Research Networking

European Commission

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- **Introduction**

- **IPv6 in Framework Programme 5**

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Introduction

- **RTD at European level provides a unique opportunity**
  - To aggregate fragmented effort in the context of the European Research Area (ERA)
  - Build consensus and provide a "global approach"

- **Framework Programme (e.g. FP5, FP6)**

- **Specific Programme**
  - Strengthening the ERA
    - **Priority 2: Information Society Technologies (IST)**
    - **...**
  - Structuring the ERA
    - **Research Infrastructures**
    - **...**

Vision statement

"Start creating the *ambient intelligence landscape* for seamless delivery of services and applications in Europe relying also upon *test-beds* and *open source software*, develop user- friendliness, and develop and converge the networking infrastructure in Europe to world-class"

George Orwell: 1984

URL: ftp://ftp.cordis.lu/pub/ist/docs/istagscenarios2010.pdf
URL: ftp://ftp.cordis.lu/pub/ist/docs/istag-99-final.pdf

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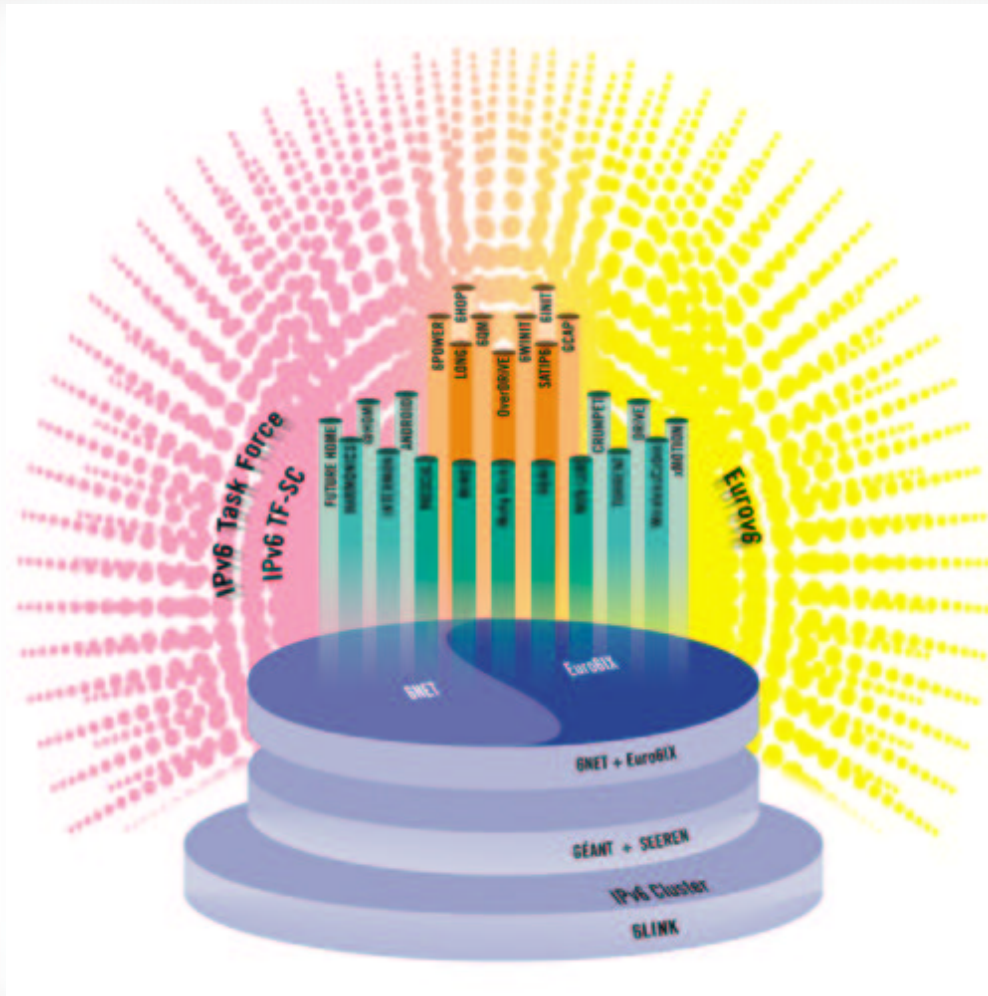
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IPv6 projects financial overview

- **Interest at European level since 1999**

- **Global situation at the end of 2002:**
  - Total budget: 156 M€ (19.4 B¥)
  - Total EU funding: 85 M€ (10.5 B¥)

- **In particular, 2 experimentation platforms**
  - Euro6IX and 6NET
  - Total budget: 34 M€ (4.2 B¥) - 22% of global situation
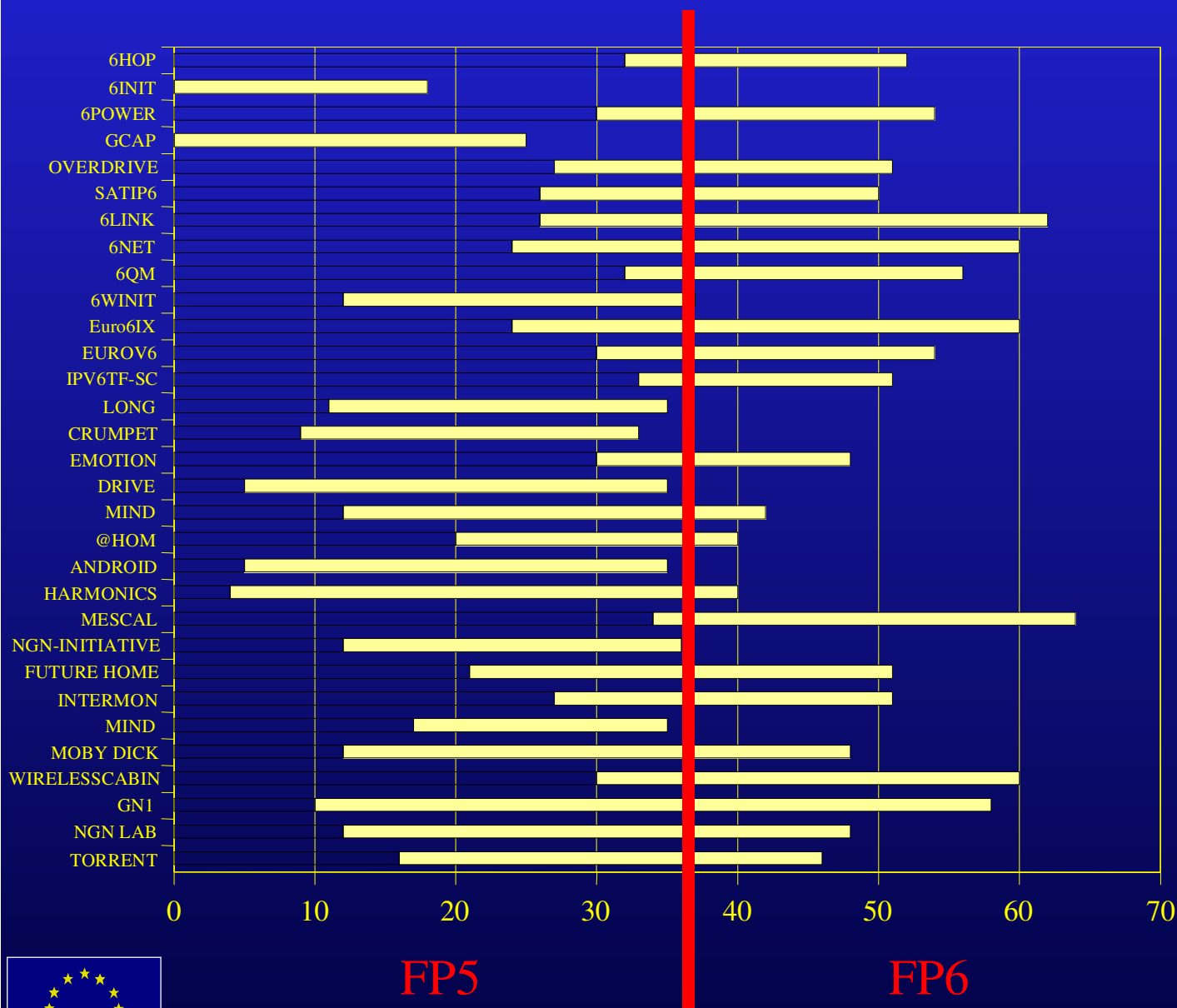 - Total EU funding: 18 M€ (2.2 B¥) - 21% of global situation

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IPv6 in FP5

- **Deployment**
  - **6NET**
  - **Euro6IX**
- **Promotion**
  - **Eurov6**
  - **IPv6TF-SC**
- **Clustering**
  - **6Link**

- **Others**
  - **more technical**

Japan and FP5

- **Japan is already participating to FP5**
  - NTT DoCoMo: MIND
  - Hitachi: Scientific coordinator of 6QM
  - NEC: NGN Lab, MobyDick
  - NTT: 6NET
  - Sony: 6NET, @HOM, MIND
  - ...

- **Collaboration agreement signed between IPv6PC and Eurov6**

- **Participation to the European IPv6 Task Force**

6NET – Overview

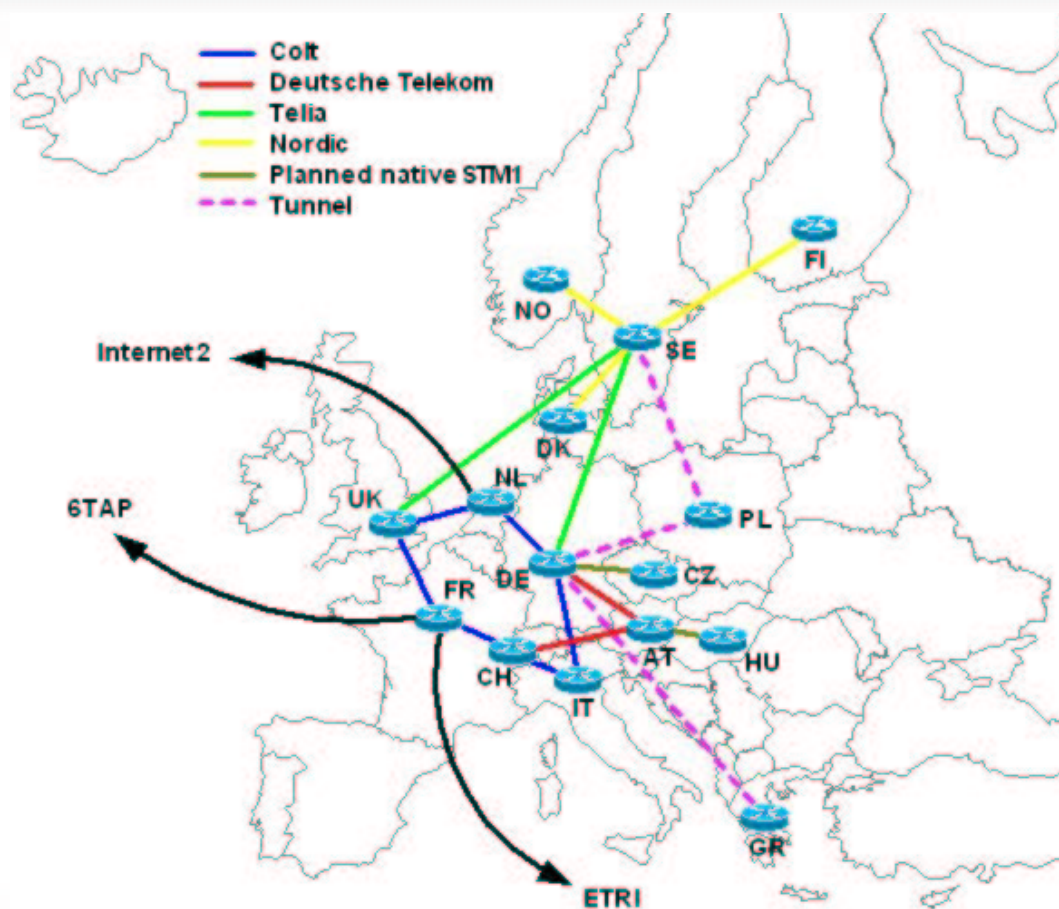- **One of the largest IST project – 18.4 M€ (10.3 M€ EU funding)**

- **About 35 partners**

- **3 years, from 01-01-2002 to 31-12-2004**

- **About 1237 PM**

URL: http://www.6net.org

Euro6IX – Overview

- **One of the largest IST project – 15.5 M€ (7.8 M€ EU funding)**

- **17 partners**

- **3 years, from 01-01-2002 to 31-12-2004**

- **About 1300 PM**

URL: http://www.euro6ix.org

Network Overview

34 Mbps IPv6
Native Links

- ● IPv6 IX Nodes
- • IPv6 Networks
- **Link Sponsors**

Viby

London

Southampton

Lannion   **FT**   **DT**   **Berlin**

Caen   **Paris**

Issy   Bretigny   **FT**   **TI**

Bern   **TI**

Zurich

TEF   **TI**

Peerings to US

Aveiro

Torino

TEF/TI

Lisbon   **PT/TEF**   **Madrid**

Peerings to Japan

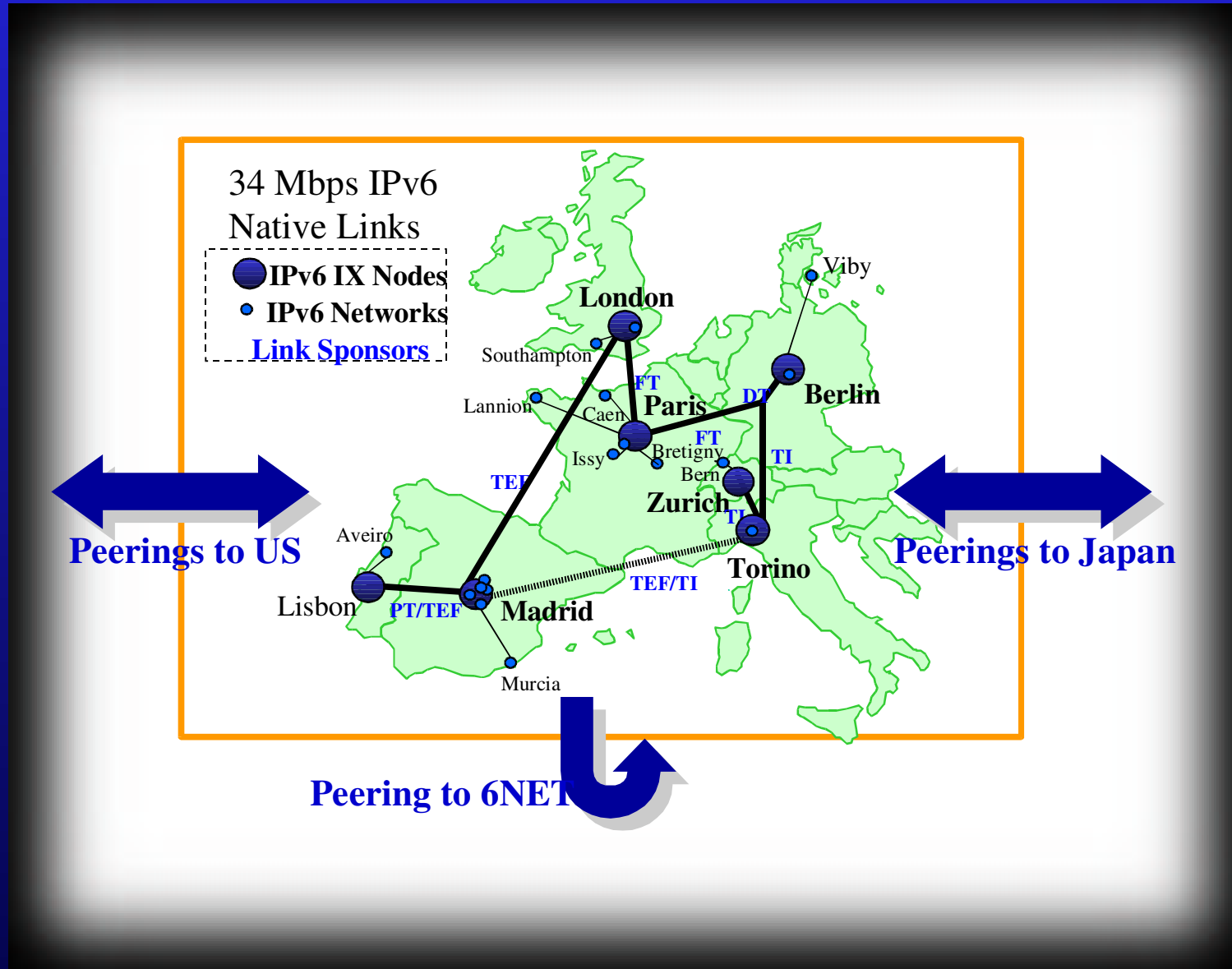Murcia

Peering to 6NET

URL: http://www.euro6ix.org

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FP6 Overview

INTEGRATING EUROPEAN RESEARCH

PRIORITY THEMATIC AREAS

Genomic and biotechnology for health

Nanotechnologies, intelligent mat., new production processes

Aeronautics and space

Food safety and health risks

Sustainable development and global change

Citizens and governance in the knowledge society

ANTICIPATING S/T NEEDS

Research for policy support

Frontier research, unexpected developments

Specific SME activities

Specific international cooperation activities

JRC Activities

STRUCTURING THE ERA

Research and innovation

Human resources & mobility

Science and society

STRENGTHENING THE FOUNDATIONS OF ERA

Coordination of research activities

Development of research / innovation policies

http://europa.eu.int/comm/research/fp6/index_en.html
http:// www.cordis.lu/ist/fp6/fp6.htm

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Calls (2003): Integrating ERA (IST)

- **Call 1 open on 17-12-2002**

- **Call 1 closing on 24-04-2003**

- **Call 2 open on 17-06-2003**

- **Call 2 closing on 15-10-2003**

- **Research Networking testbeds is one of the Strategic Objectives in *Call 2*, allowing all instruments (IP, NoE, STREP, CA and SSA) to be used**

http://europa.eu.int/comm/research/fp6/index_en.html
http:// www.cordis.lu/ist/fp6/fp6.htm

IST Call 1

- **Strategic objectives (without FET):**
  - Pushing the limits of CMOS, preparing for post-CMOS
  - Micro and nano systems
  - Broadband Access for All Broadband for all
  - Mobile and wireless systems beyond 3G
  - Towards a global dependability and security framework
  - Multimodal Interfaces
  - Semantic-based knowledge systems
  - Networked audio-visual systems and home platforms
  - Networked organisations, businesses and governments
  - E Safety of road and air transport
  - *e*Health
  - Technology-enhanced learning and access to cultural heritage
  - Products and Services engineering 2010
  - General accompanying actions

IST Call 2

- **Strategic objectives (without FET):**
  - Advanced displays
  - Optical, opto-electronic, photonic functional components
  - Embedded systems
  - Open development platforms for software and services
  - Cognitive systems
  - Applications and Services for the Mobile User and worker
  - Cross-media content for leisure and entertainment
  - GRID-based Systems and for solving complex problems
  - Improving Risk management
  - eInclusion
  - Services and Product engineering 2010
  - Research Networking test-beds
  - General accompanying actions

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Calls (2003): Structuring the ERA

- **GRID:**
  - Open on 17-12-2002
  - Deadline on 06-05-2003
  - Starting late 2003
  - Instruments: I3, CA, SSA

- **GEANT:**
  - Open on 06-05-2003
  - Deadline on 02-09-2003
  - Starting late 2004
  - Instruments: I3

http://europa.eu.int/comm/research/fp6/infrastructures_en.html

FP6: Further links

http://europa.eu.int/comm/research/fp6/index_en.html

http://europa.eu.int/comm/research/fp6/documents_en.html

http://europa.eu.int/comm/research/fp6/infrastructures_en.html

http://www.cordis.lu

http:// www.cordis.lu/ist

http:// www.cordis.lu/ist/fp6/fp6.htm

http:// www.cordis.lu/rtd2002

IST HelpDesk

Fax :   +32 2/296-83-88

E-Mail :   ist@cec.eu.int

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FP6 over IPv6

- **Deployment of the core protocol: Addressed in FP5**

- **R&D effort still needed about:**
  - **Mobility**
  - **Quality of Service**
  - **Security**
  - **. . .**

- **Applications & services to be much deeper addressed:**
  - **GRID**
  - **Health care**
  - **e-commerce**
  - **e-government**
  - **. . .**

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Conclusion

- **IPv6 is a key enabler technology for a large spectrum of applications and services (ambient intelligence)**

- **IPv6 is a corner stone for *e*Europe and ERA**

- **Collaborations EU-Japan are welcome**
  - **With Research and industrial entities**
  - **In FP5 and in FP6**
  - **Common demonstrations**
  - **...**

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あっがとう

Pascal Drabik

European Commission
DG Information Society F2
Rue de la Loi, 200
B-1049 Brussels
Belgium

E-mail: Pascal.Drabik@cec.eu.int
URL: http://www.cordis.lu/ist/rn/home.html
Phone: +32 2/295-48-24
Fax: +32 2/299-31-27

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