European Initiatives on IPv6
- Future Perspectives

Bernhard FABIANEK
Bernhard.Fabianek@cec.eu.int
European Commission, Information Society Directorate-General

Euro6IX - 6NET Workshop
Limerick, June 5, 2002
Research Networks within EU policies

eEUROPE POLICIES

R&D Programme IST

Networks for Research

Research on Networks
GÉANT - The Pan-European Research Network infrastructure that explores the latest developments in telecommunications technology

- Network Services for National Research and Education Networks (NRENs)
- Platform for testing - GRIDs, IPv6, ...
- Pan-European coverage (32 Countries/NRENs)
- Gigabit connectivity at 10 Gb/s
- Linking more than 3000 Universities
- Total 200 MEuro over 4 years (80 MEuro from EU)
- Extend to Mediterranean, Asia Pacific Rim, Latin America...
Research Networks: The Model

Tesbeds use GEANT infrastructure

GEANT profits from technological innovation

Scientific/Application Areas

GRIDs
IPv6

International Dimension

GEANT Network

European Commission - Research Networks
IPv6: A Coordinated Strategy

- Technological components
- Experimentation in large testbeds
- Integration of fixed and mobile
- Co-operation with IPv6 Forum
- Launching of IPv6 Task Force
- Communication to the Council and Parliament
Considering the level of standardisation, the availability of technology, the scale of current experimentation, the emergence of applications and the need to accelerate the uptake of this technology...

Large scale test-beds, involving the right set of actors, emerge as an ideal way to structure, consolidate & integrate European efforts on IPv6.
Extensive IPv6 Test-beds

Native IPv6 at: 34 Mb/s, 155 Mb/s, 2.5 Gb/s
2500 person months of work over 3 years
33 MEuro total cost

European Commission - Research Networks
IPv6: Mobilising the Actors through Test-beds

Europe becomes the focus for early large scale experimentation in IPv6

Excellent prospects for global cooperation

Examples of partners

Router Manufacturers - Cisco, Ericsson Telebit, Hitachi, 6WIND
Research Institutions - 9 NRENs and several Universities
Operators - DT, BT, Telefonica, PT, FT, TI, NTT, ...
Application providers - Sony, IBM, EuroControl, several ISPs
EU 6th Framework Programme for RTD

- Include political dimension of networking
- The European Research Area (ERA) offers new ways of co-operation
- ERA makes Research more competitive
- Research Networks are THE tool for the ERA
- Doubled budget (300 MEuro) to reflect the importance of Research Networking
Enhance GEANT:

- Keep GEANT as THE research backbone
- Extend the reach by addressing a wider user community
- Target the 100 Gb/s
- Provide middleware services

Continue Global Co-operation and Interconnection

Provide advanced test-beds
Conclusions

Networking for Research is an important priority for EU policy.

With the support of the IST Programme and in the context of the eEurope Action Plan, a new generation backbone for research has been launched - GEANT.

Increased strategic role of Research Networks matched by increased funding.

In parallel, EU is investing in advanced networking technologies and in global research network interconnections.