NORDUnet

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Advancing Research Networks in the next R&D Framework Programme

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The timetable for FP6

- October 2001 — Parliament 's first reading of FP
- 10/12/2001 — Council agreement on FP
- January 2002 — Council formal common position
- 10/01/02 — Modified proposal on Rules for Participation
- 31/01/02 — Modified proposal on Specific Programmes
- Feb - May 2002 — Parliament second reading of FP
- Sept-Oct 2002 — Conciliation procedure (if necessary)
- Oct/Nov 2002 — Final adoption of FP, SP and Rules for Participation
- ~ December 2002 — First FP6 Call for Proposals

Overview of FP6

Integrating European Research

Priority Thematic Areas

- Genomic and Biotechnology for health
- **Information Society Technologies**
- Nanotechnologies, intelligent materials, new production processes for health
- 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 Co-operation Activities
- JRC Activities

Structuring the ERA

- Research and Innovation
- Human Resources & Mobility
- **Research Infrastructures**
- Science and Technology

Strengthening the Foundations of ERA

- Co-ordination of Research Activities
- Development of Research/Innovation Policies

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Budget after Council position

Integrating & strengthening	
Genomics	2200 M€
IST	3600 M€
Nanotechnologies, int..	1300 M€
Aeronautics and space	1075 M€
Food quality and safety	685 M€
Sustainable development	2120 M€
Citizens and governance ..	225 M€
Anticipation of S&T needs	
SMEs	450 M€
Specific InCo	300 M€
Anticipating needs	570 M€
Strengthening ERA foundations	330 M€
Structuring ERA	
Research and Innovation	300 M€
Human resources	1630 M€
Research Infrastructures	665 M€
Science/Society	50 M€
Joint Research Centre	760 M€
	16, 270 B€

Of which 100M€ for GEANT/GRID

Of which 350 M€ in the initial phase

Of which 200M€ for GEANT/GRID

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Research Funds

- Budget for Research in EU is less than in other continents (e.g. North America, Japan)… this implies that we need to get more value out of each Euro invested.
- The establishment of the European Research Area (ERA) corresponds to this fundamental concern.
- *Member States recognised the need to upgrade R&D Funding (conclusions of Barcelona Summit) - targeting 3%*

ERA implies a new way of "thinking"

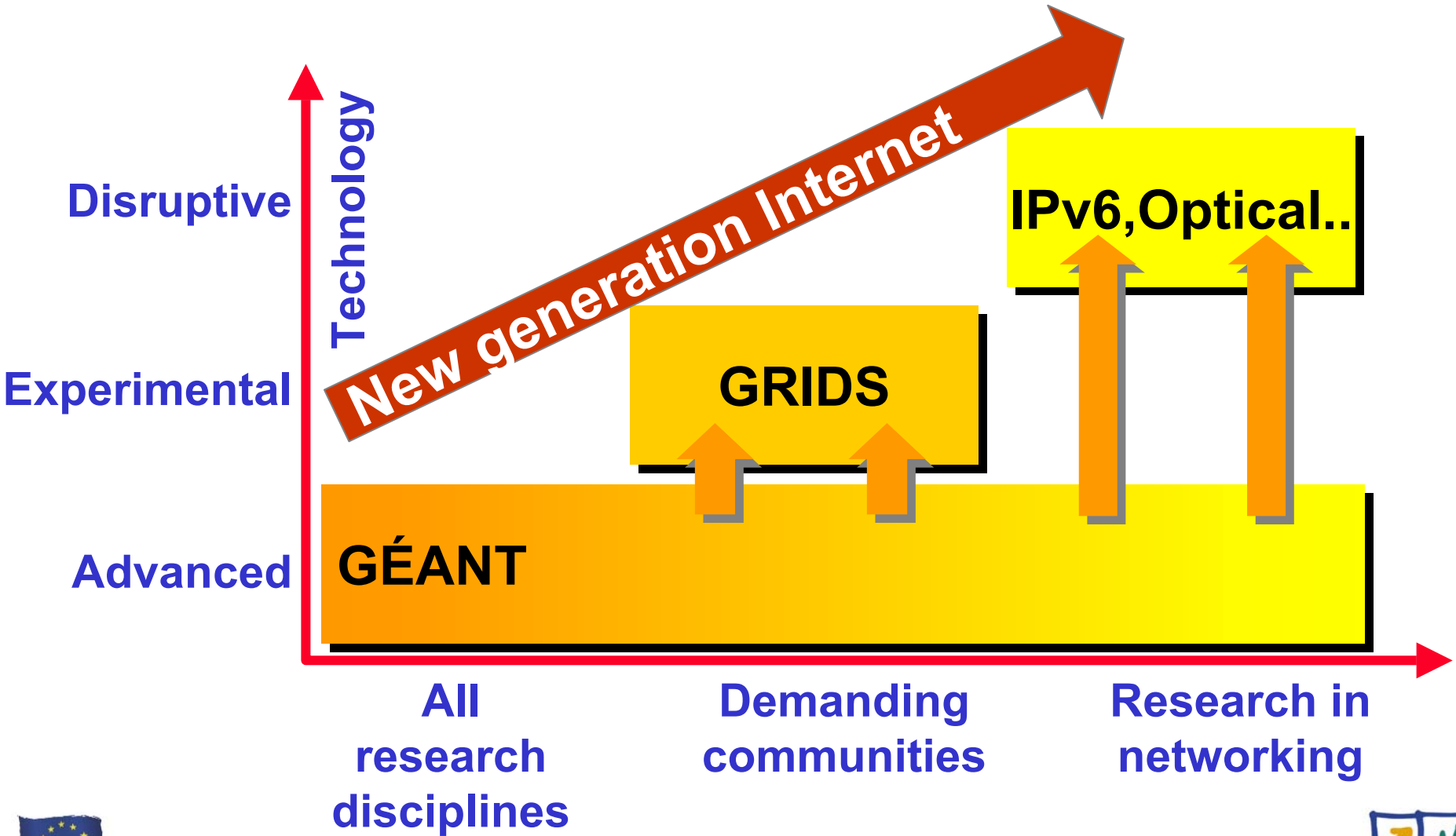
- From Project-thinking to "Initiative"-thinking
  - New instruments: IPs and NoEs
  - More strategic thinking and ...aches
- The ERA Dimensio...
  - Making sure t... funding helps aggregat... and private effort
  - It is ...ing a particular RTD work…
- Re...works have a key role to play
  - ...ding an infrastructure for EU research
  - Enabling research on networks

FP6 is not business as usual!

Research Networks in Europe

- Provide Europe with a key infrastructure for Research.
- Acquired in recent years an added political significance.
- Is a key instrument to realise the ERA.
- Constitutes a powerful model for the deployment of advanced Internet services in Europe.

A strategic vision for Research Networks



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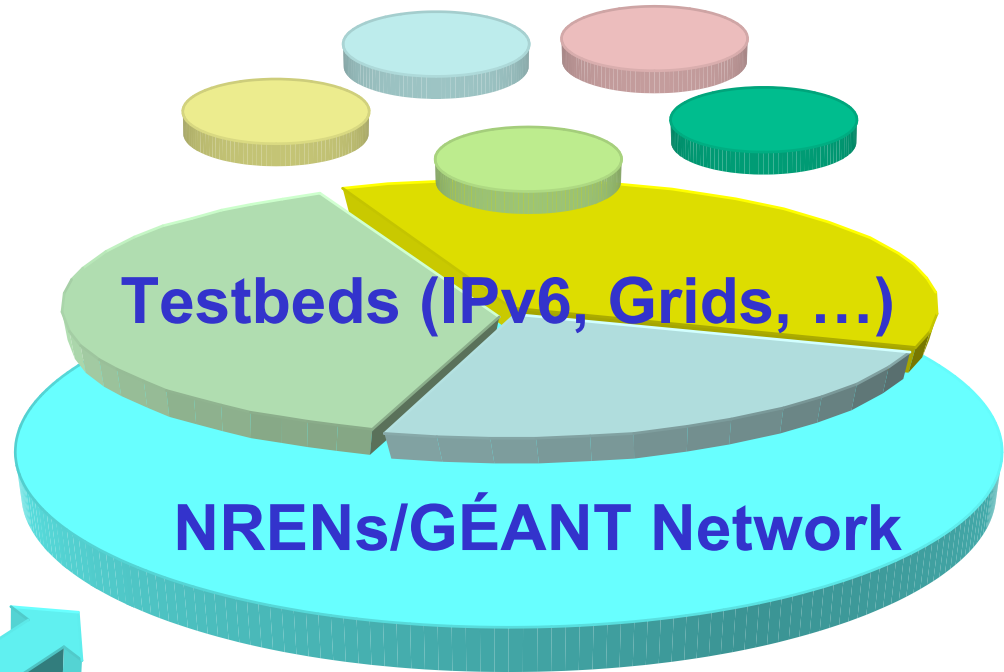
Research Networking, testbeds and R&D

Testbeds use GÉANT infrastructure

GÉANT profits from technological innovation e.g. IPv6 or GRIDs empowered GÉANT

Scientific/Industrial applications



R&D - Key Actions

International dimension

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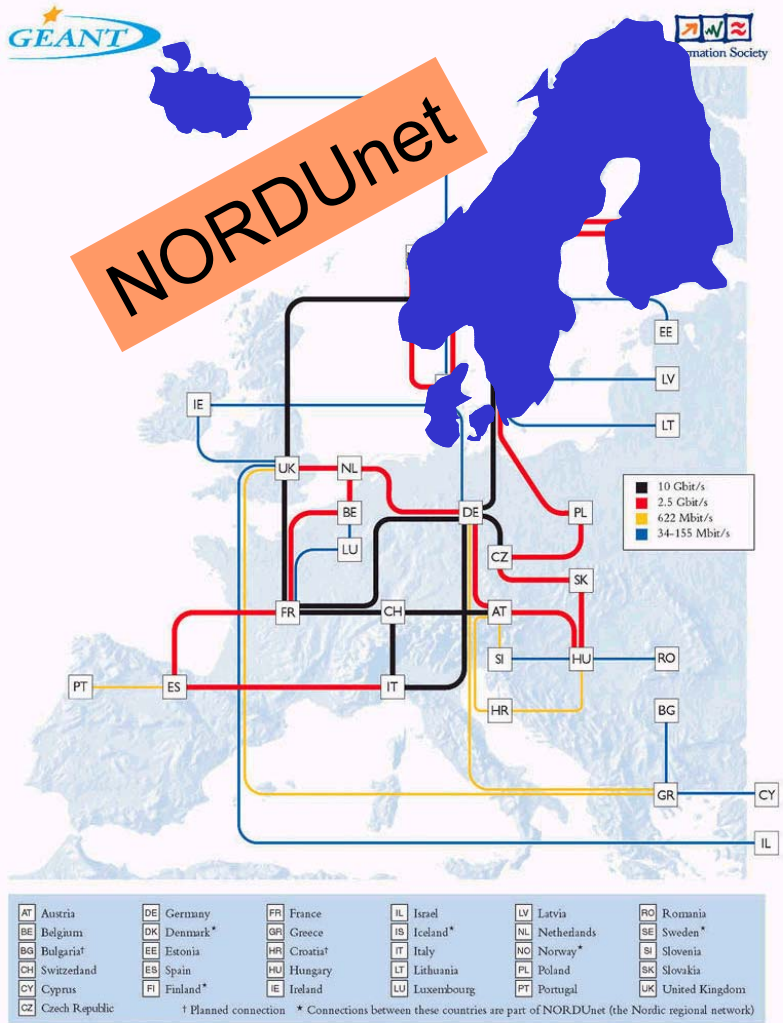
The Achievements

- **GEANT - the European backbone**
  - Operating at 10 Gbps.
  - Coverage - 32 countries.
- **NRENs - the national component**
  - Continuously upgraded capabilities
  - Connecting more than 3000 Universities … virtually all the researchers in Europe... in all disciplines



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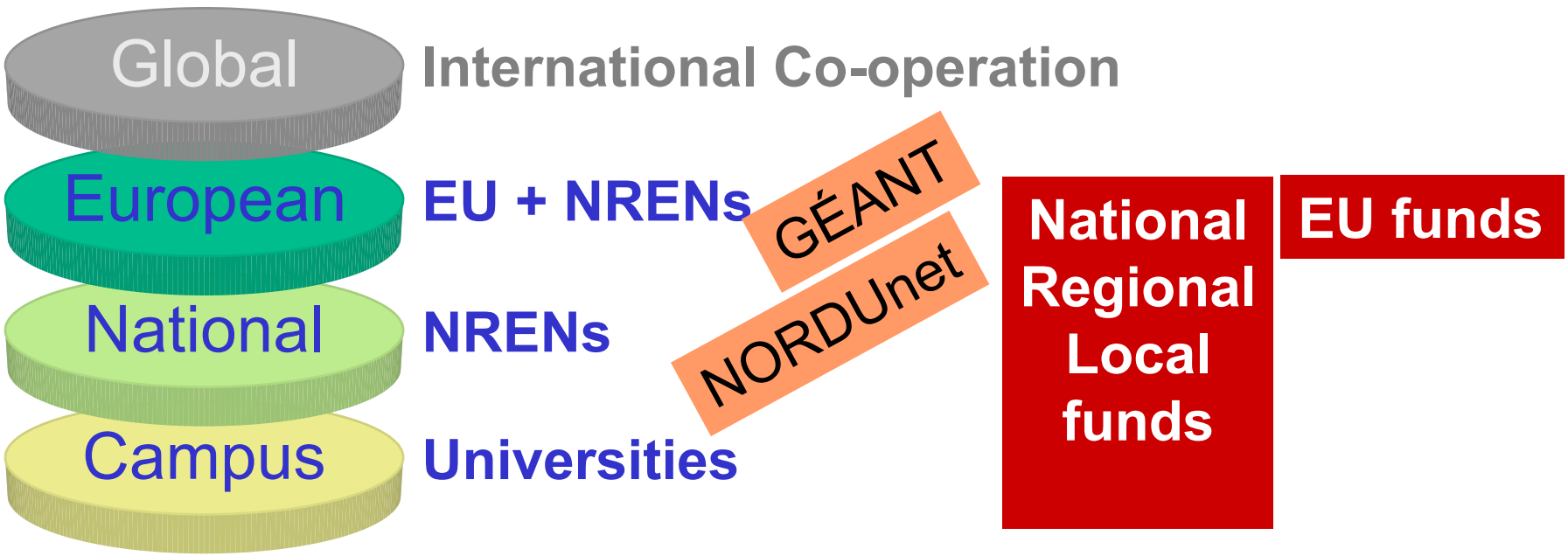
Complementarity with Member States

- Co-ordinated approach with Members States.
- Very good positioning in global terms.

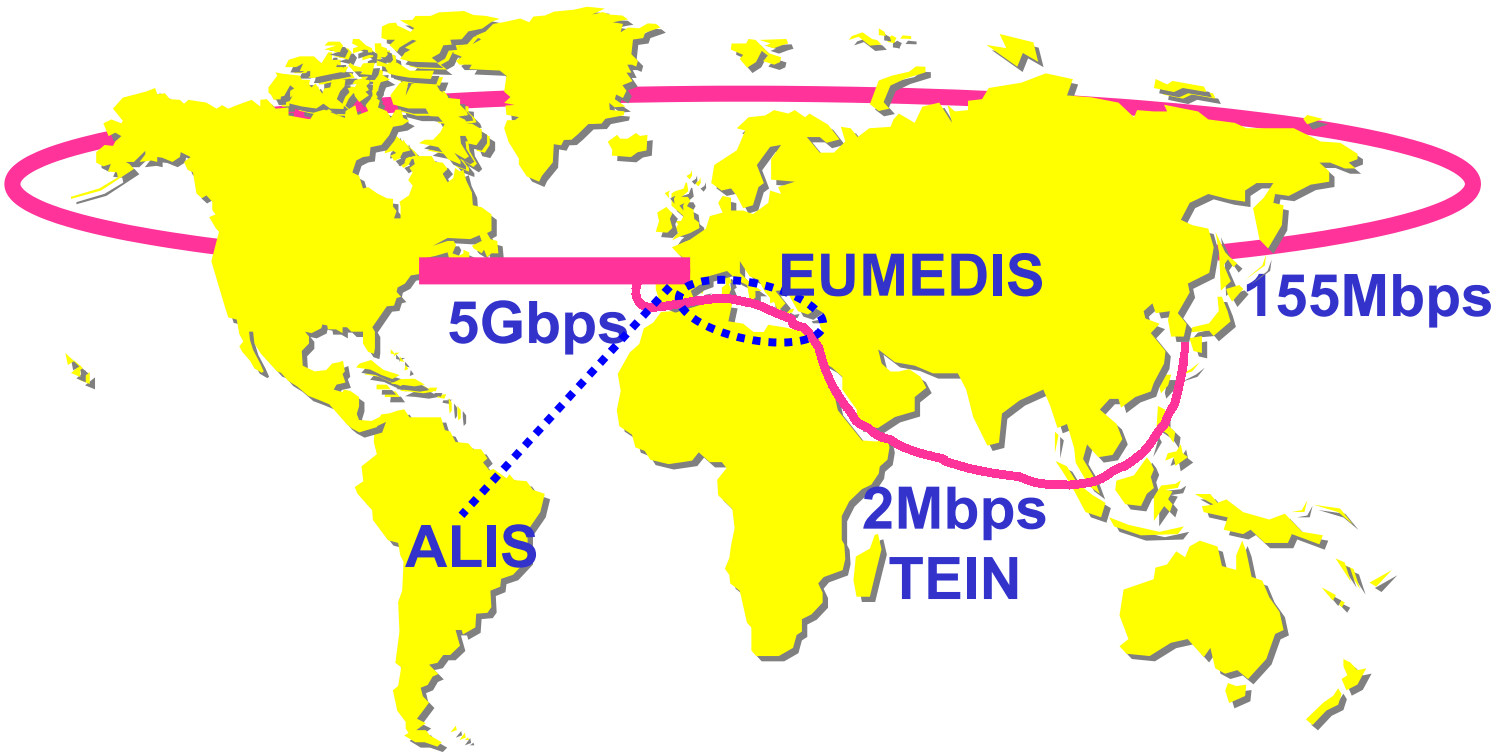


GÉANT - a leading infrastructure for research

	ABILENE	GÉANT	GÉANT+ NRENs
Maximum Speed	2,5Gbps	10Gbps	
Trunk Capacity	35Gbps	120Gbps	
No of Main Access Points	36	27	
No of Core Nodes	13	12	
Accessible Institutions	200 approx		>3000

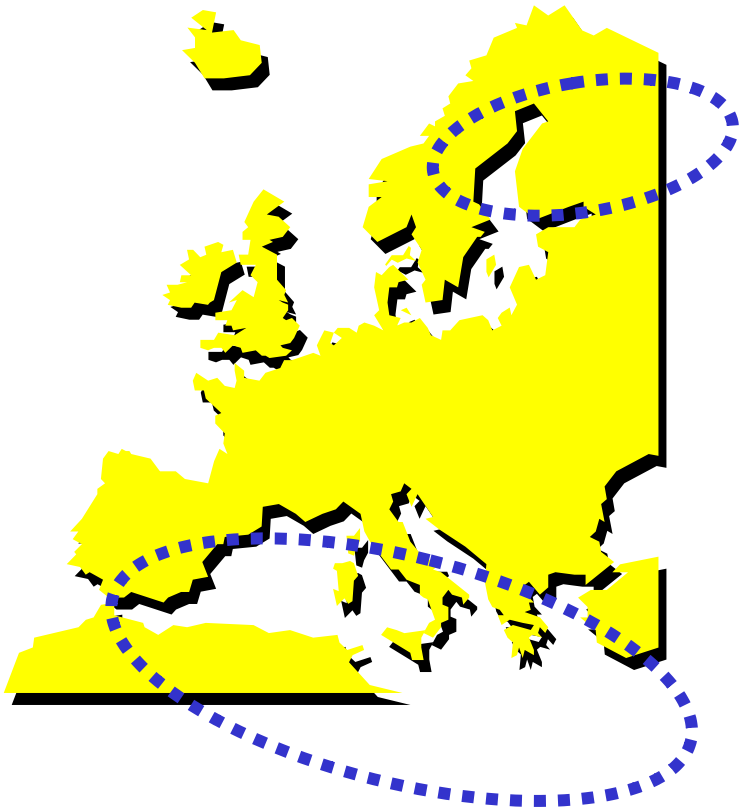
The international dimension

➲ EU deploys a coherent strategy of involving Research and Co-operation budgets to promote a global perspective for Research Networks



The international dimension

➲ EU and Member States co-operating to reinforce the international dimension.



NeDAP - linking the North-Western part of Russia

EUMEDIS - Linking the Mediterranean countries

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RN in Europe - a changing landscape

- Research Networks evolved from an activity with a significant technological bias towards a very strategic political objective for Europe.
- This requires from the main actors (funders, NRENs) a difference in attitude, a change in mind setting.

RN and the future Framework Programme

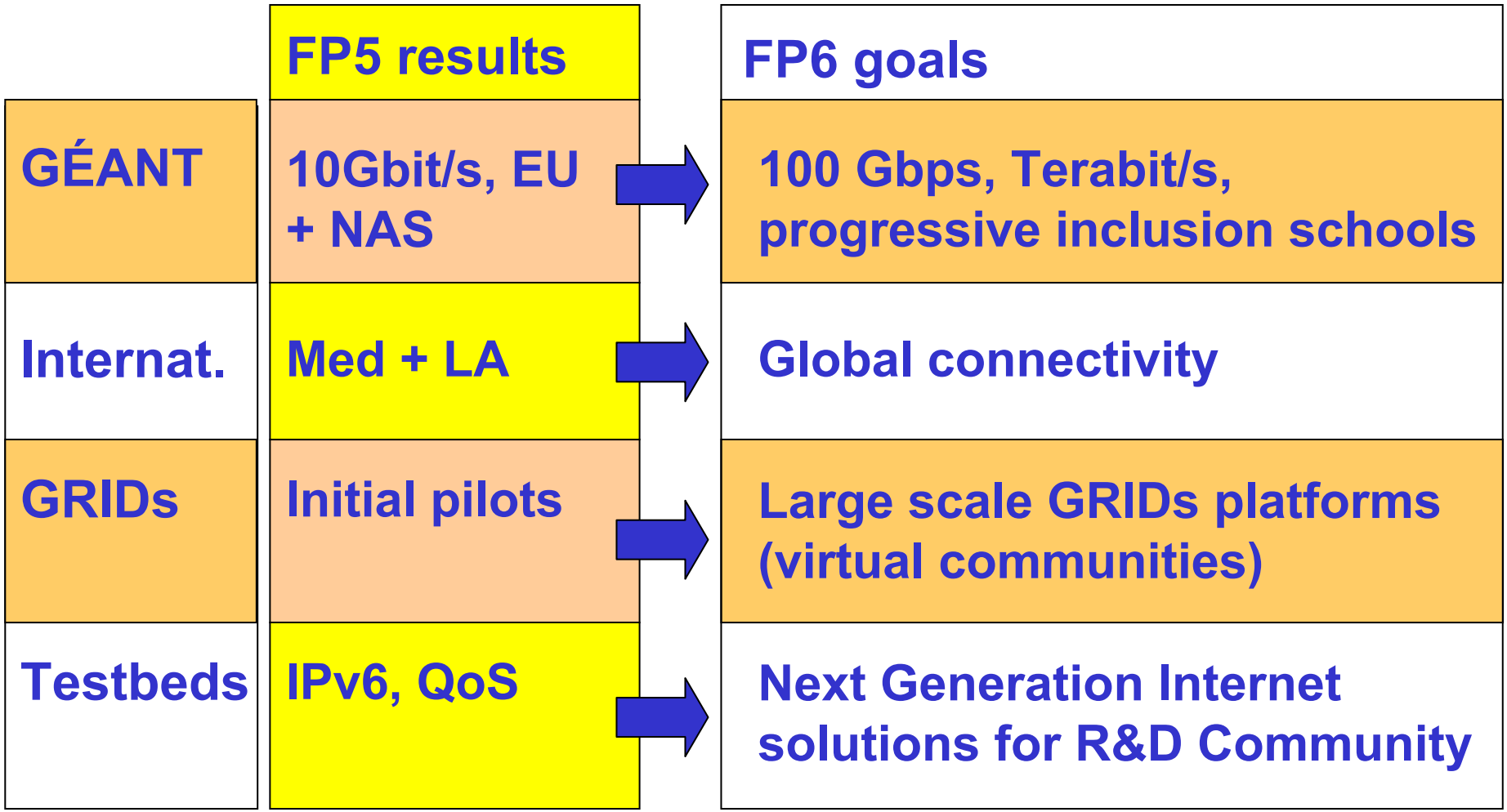
- Member States and European Parliament recognised the value of current achievements and its strategic importance.
- As a consequence Research Networks will receive in FP6 the double of the funds allocated to them in FP5.
- This requires an ambitious vision and an reinforced commitment from the stakeholders.

RN in FP6 - Cornerstone of ERA

National level	European level, ERA
Continuous upgrading of National Research and Education Networks linking all Universities and Research Centers National GRIDs Initiatives	Corresponding upgrade of the European Backbone for Research - GÉANT Provision of multinational GRIDS platforms

Research Communities: traffic and tools demand is continuously growing

RN - From FP5 to FP6



Conclusions

- In Europe Research Networks are well positioned.
- Research Networks are key for the realisation of ERA.
- A lot has been achieved - more needs to be done.
- Increased strategic role of Research Networks to be matched by increased funding.
- Global Interconnection will enhance European leadership.
- Co-operation remains the key to success.