The role of innovation policies in region development – the Finnish case

Innovations generate regional vitality

Knowledge, specialisation and networking determine succes international competition

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Preconditions for the success of regions in Finland

- Success of a region depends on the success of its companies i global markets
- Companies' success on global markets requires internationally competitive technology and know-how
- Developing internationally competitive technology and know-h requires focusing and centralisation
- Effective networking and co-operation is essential for two reasons:
  - Technology in-sourcing: access to multiple technologies from several sources is usually necessary
  - Individual companies can also prosper outside the centres they can access the knowledge and know-how they need through networking

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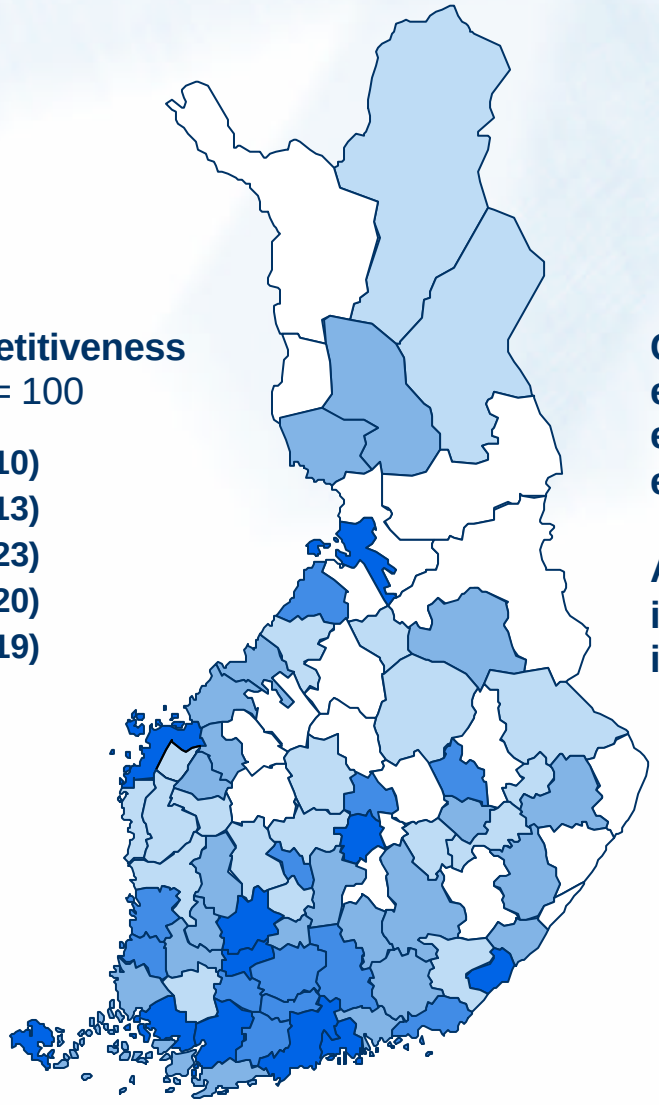
Competitiveness by region



Index of competitiveness
Whole country = 100

100 - 134 (10)	
90 - 100 (13)	
80 - 90 (23)	
70 - 80 (20)	
59 - 70 (19)	

Competitiveness clearly correl earnings growth, growth in employment, net migration an economic development.

A large part of the competitive is explained by human capital, innovation and R&D investme

Source: Huovari, Janne - Kangasharju, Aki - Alanen, Aku. 2001. Alueiden kilpailukyky. Pellervo Economic Research Institute PTT. Publication 176.

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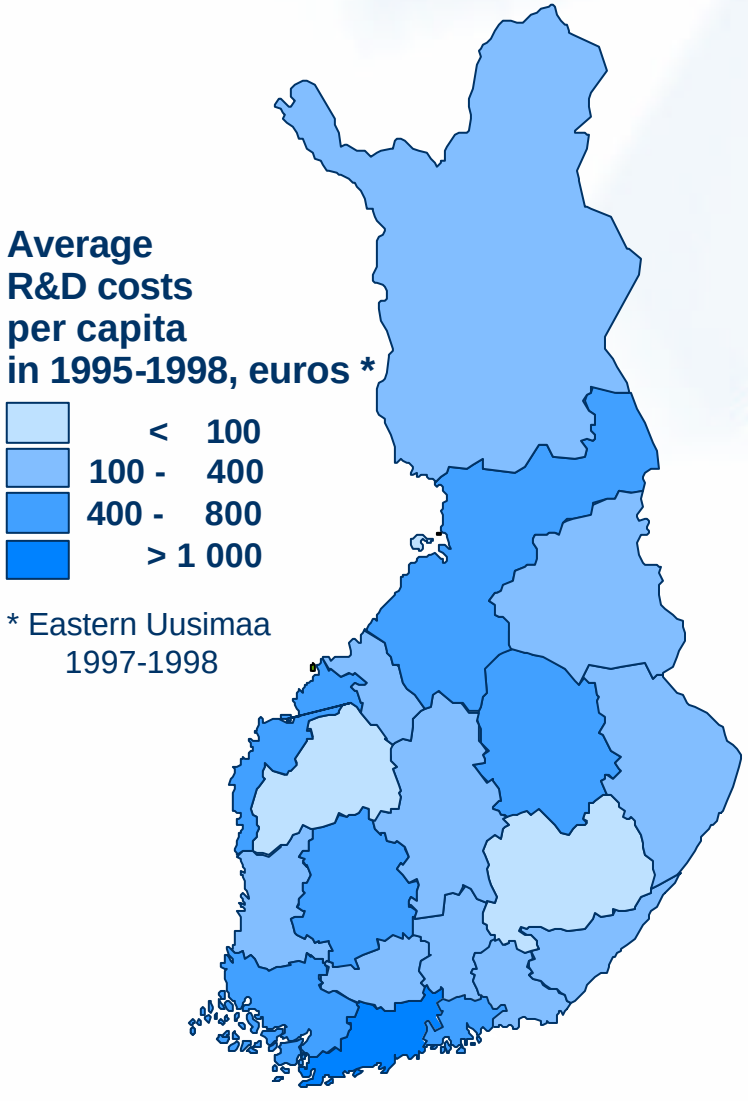
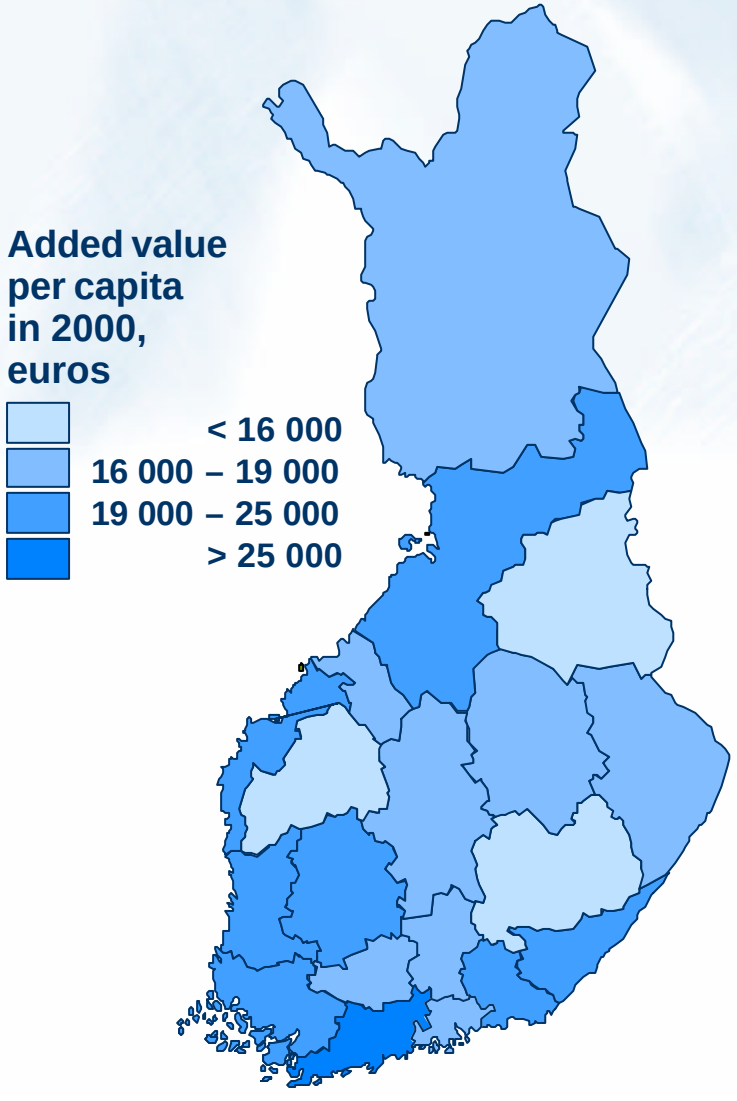
Research and development costs and added value three years later by region





Source: Statistics Finland

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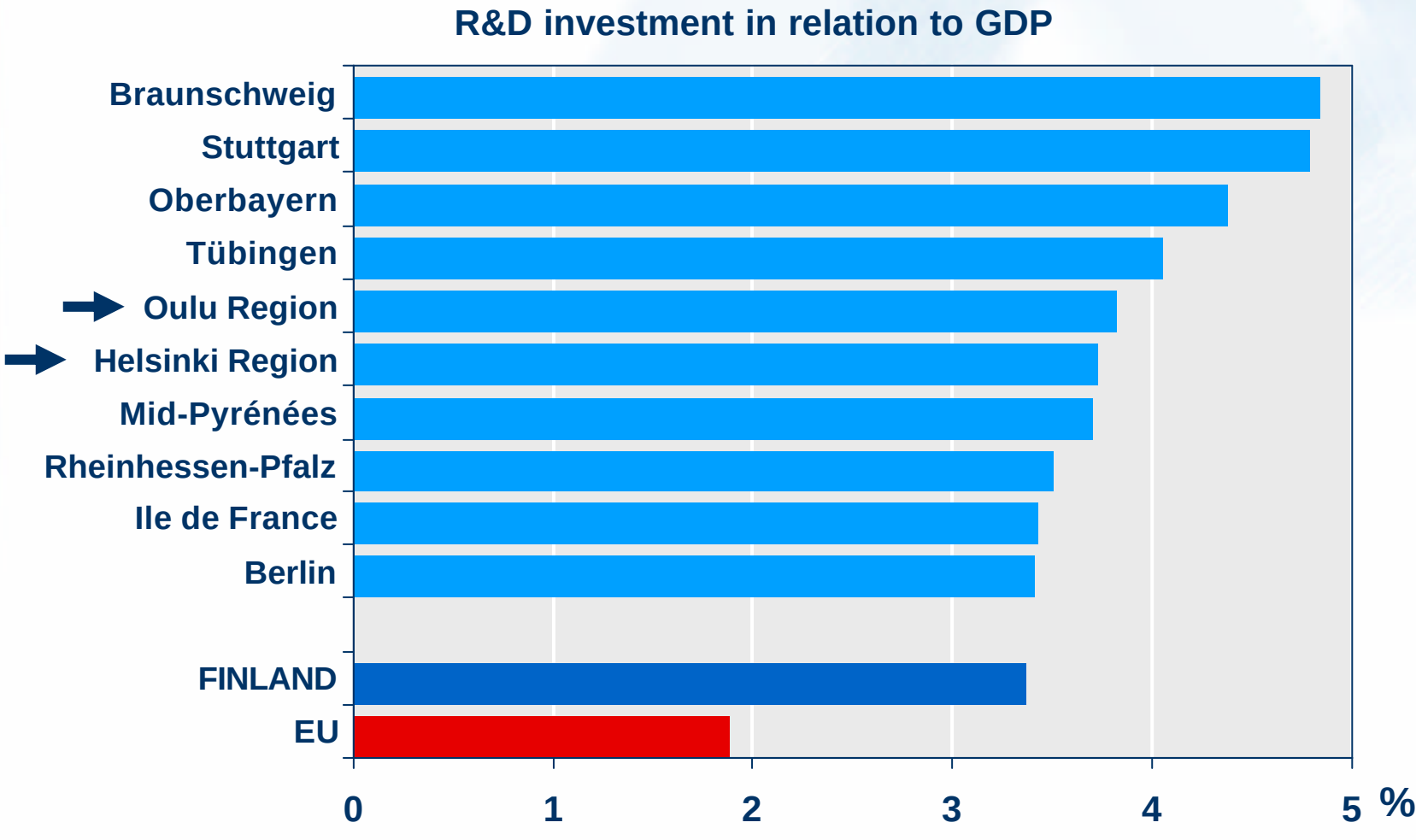
Top areas of research in Europe

10 top areas represent a quarter of total R&D investment in EU



Source: European Commission, 2002

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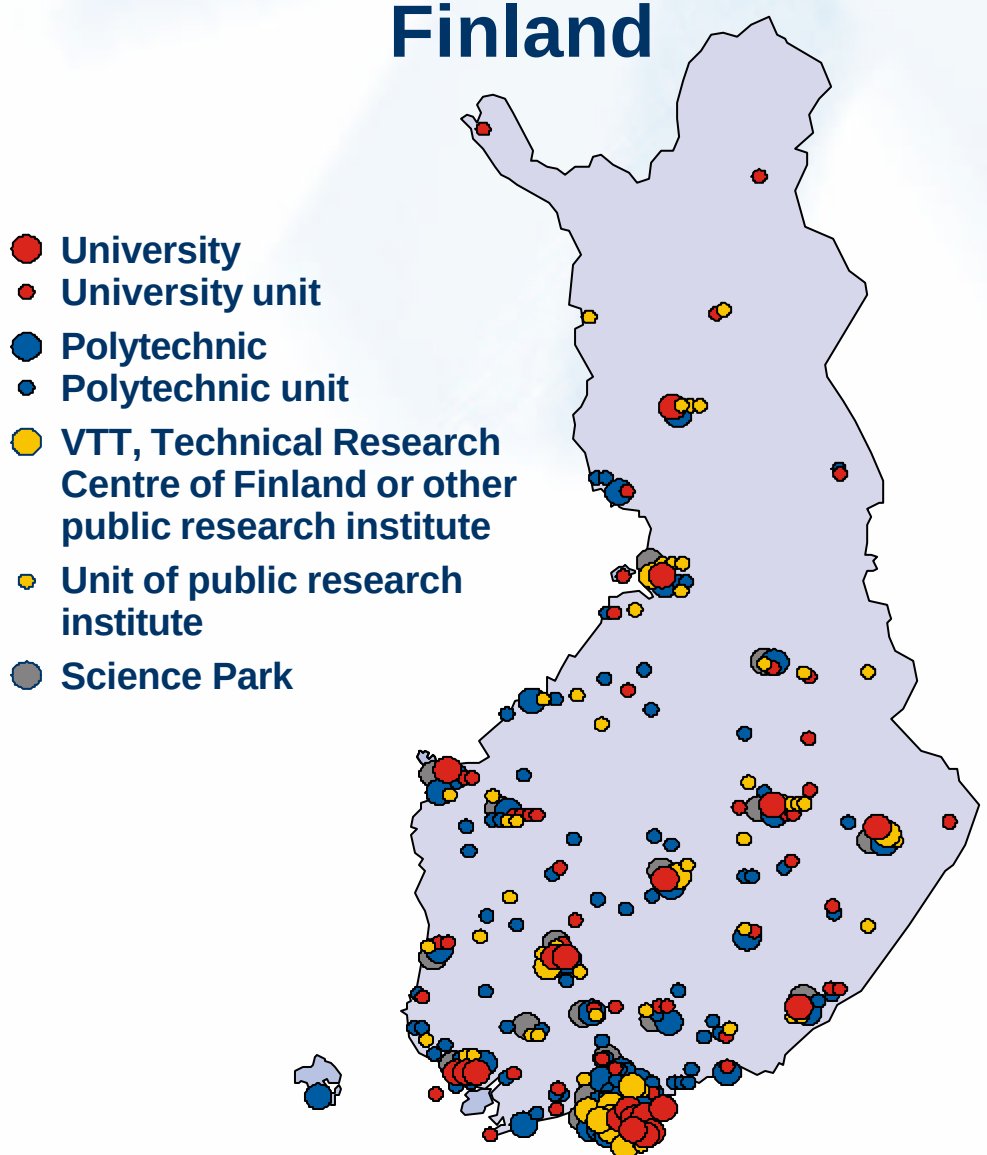
Network of universities, polytechnics, public research organisations and science parks in Finland



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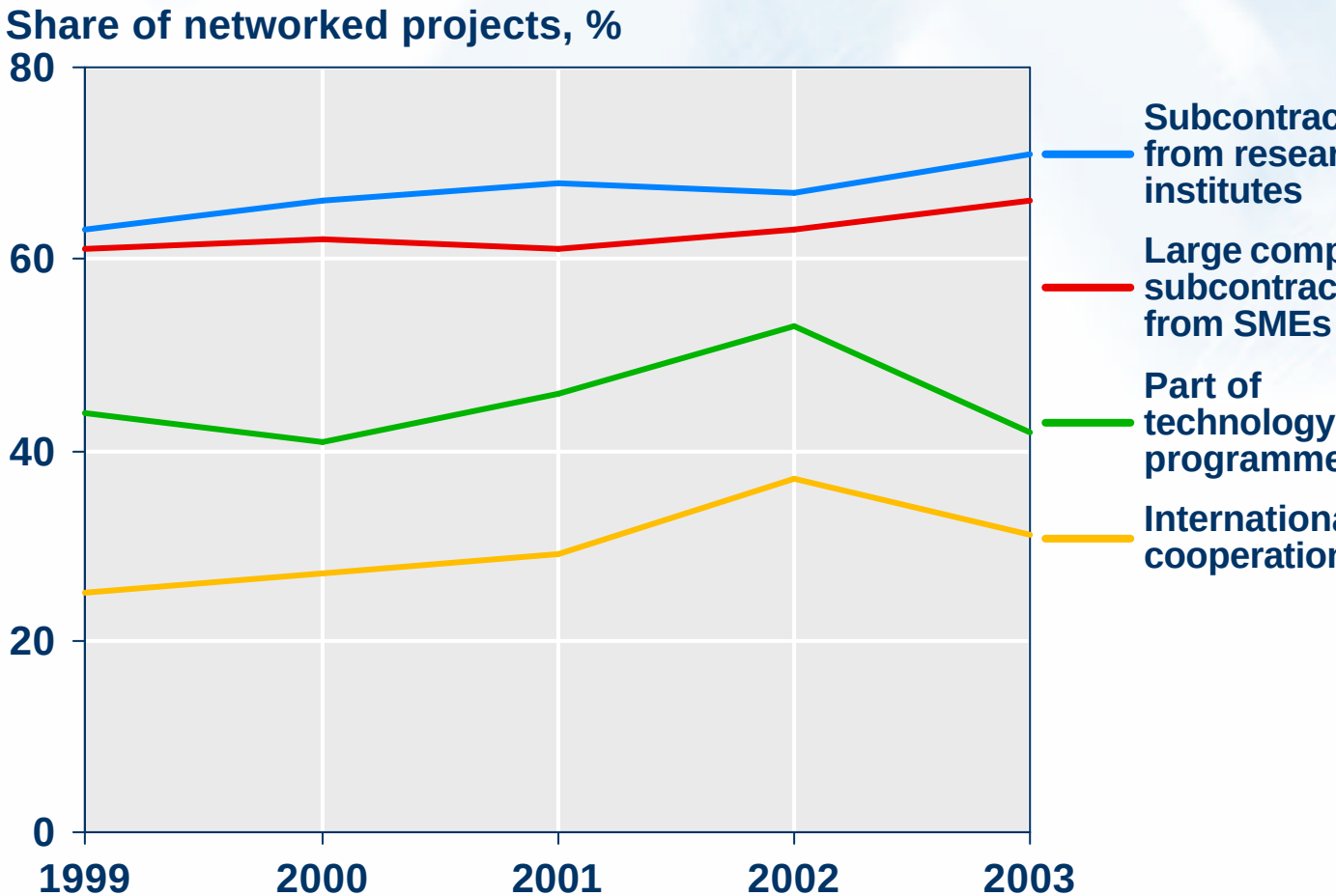
Networking in corporate R&D projects



Almost all projects funded by Tekes in large companies and more than 80 per cent of all R&D proj
were networked. The figures include corporate R&D projects, but not smaller feasibility studies

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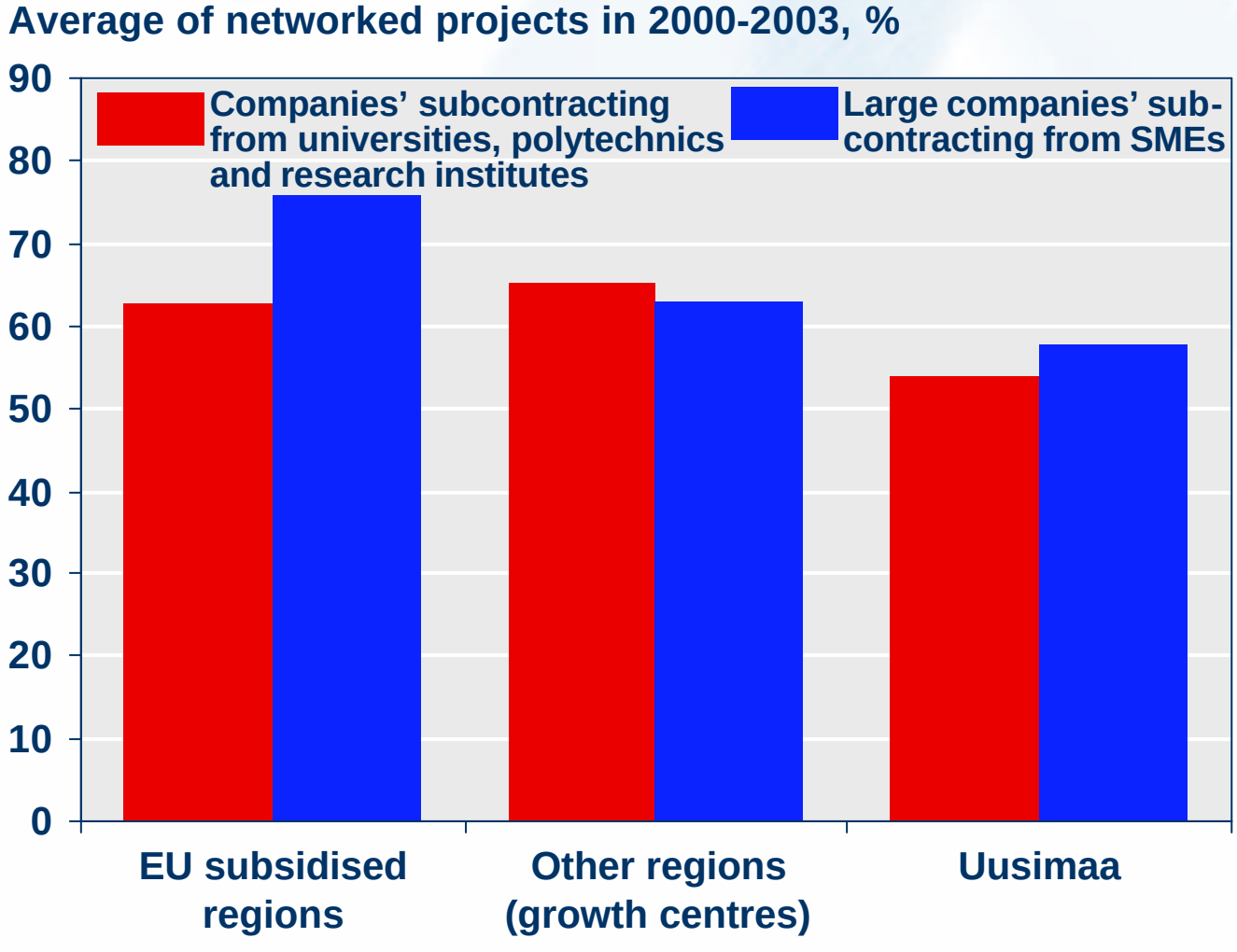
Networking by region in corporate R&D projec funded by Tekes



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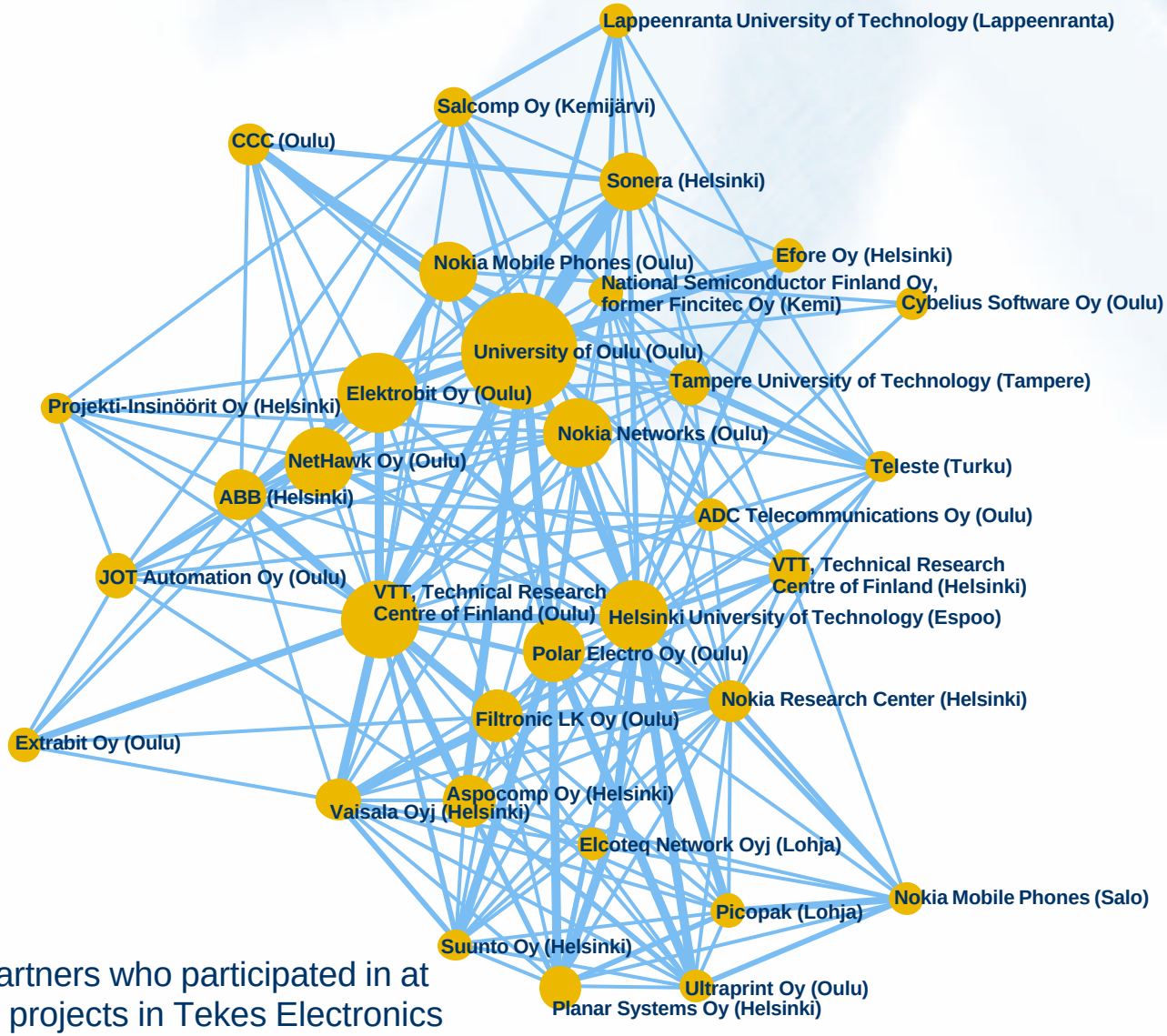
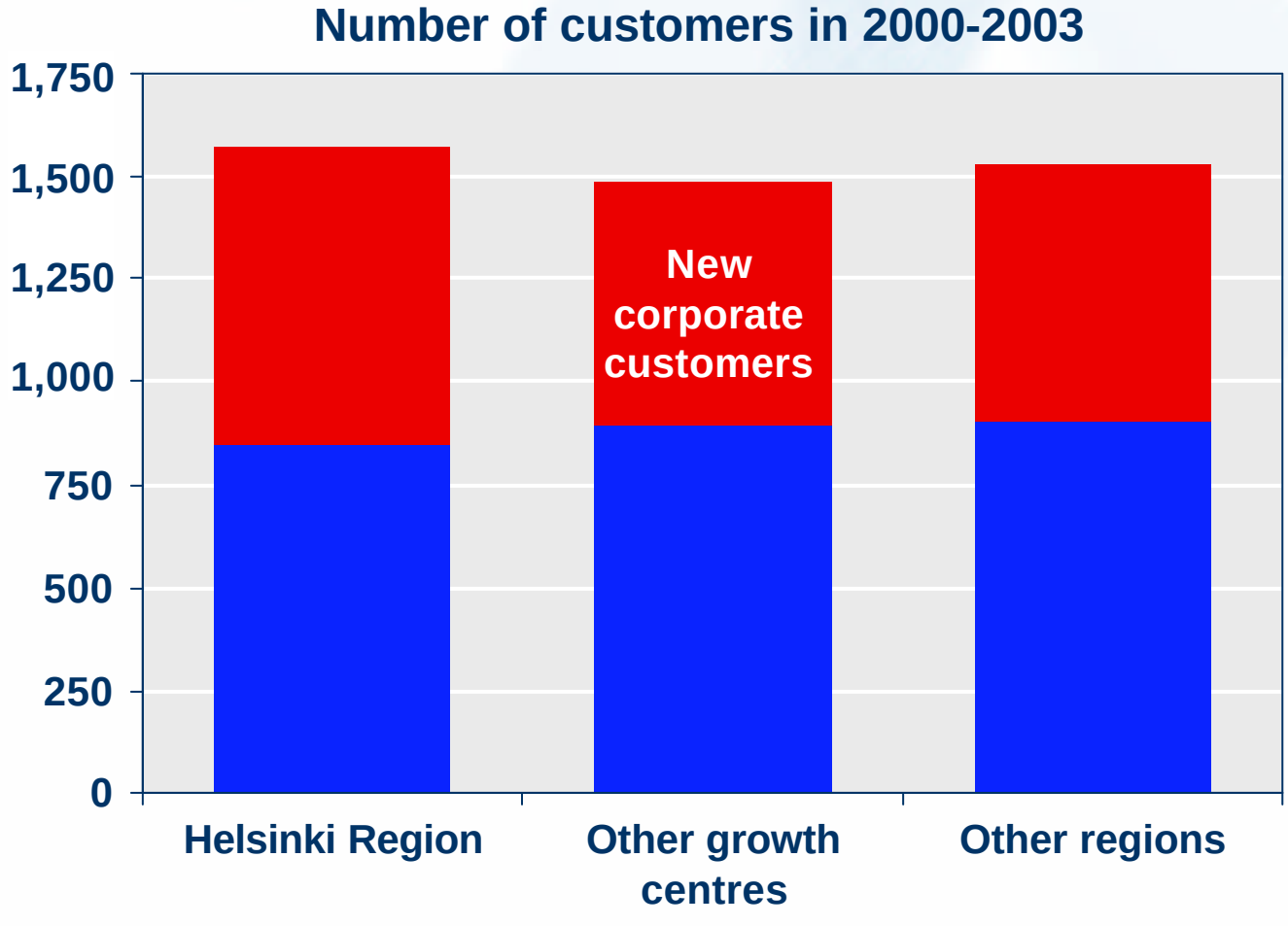
Regional networking with partners from Oulu electronics and telecommunications programm



Includes partners who participated in at least three projects in Tekes Electronics and Telecommunications technology programmes

Tekes' corporate customers by region



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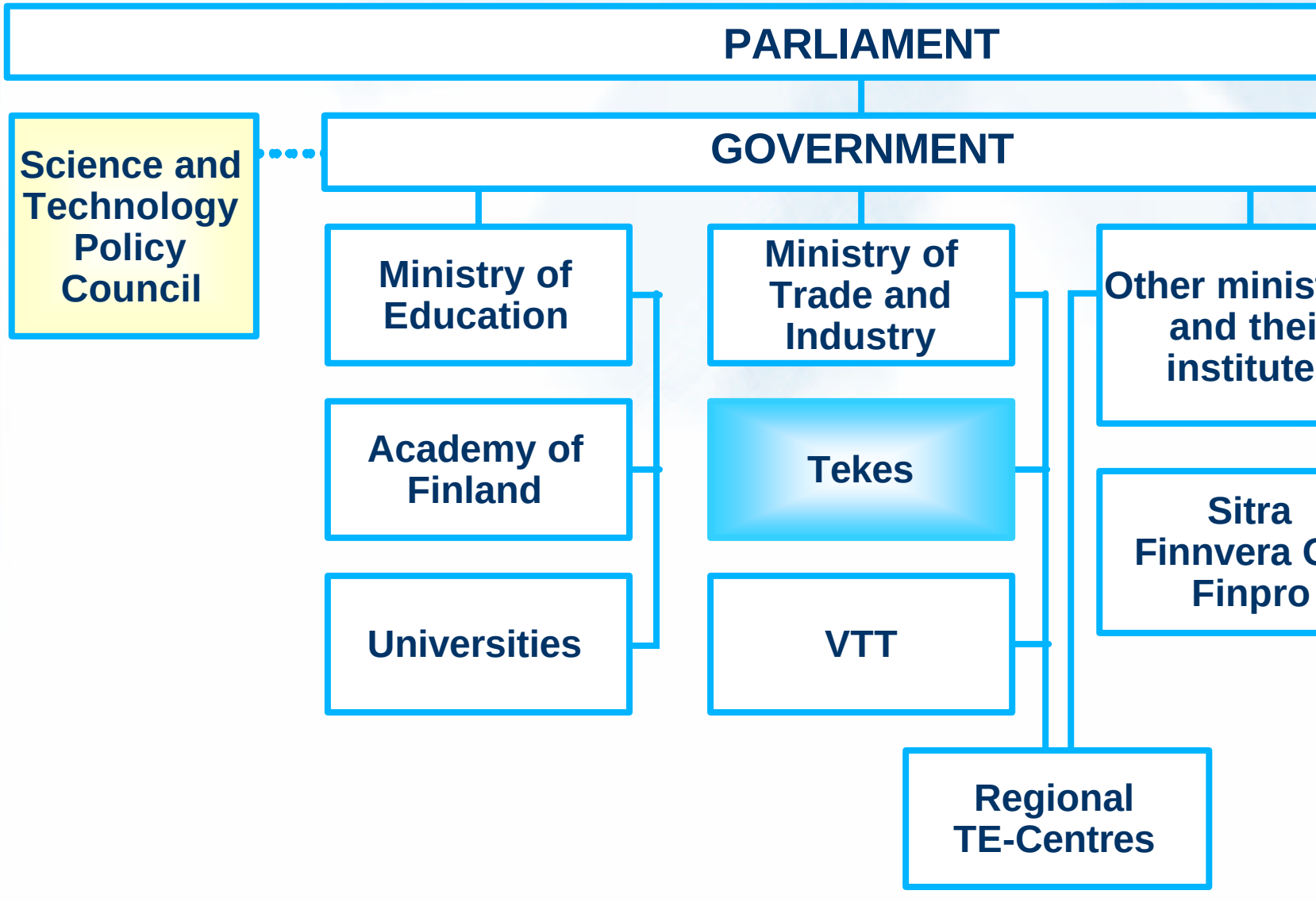
Public sector activities of R&D in Finland



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Impact of Tekes activities

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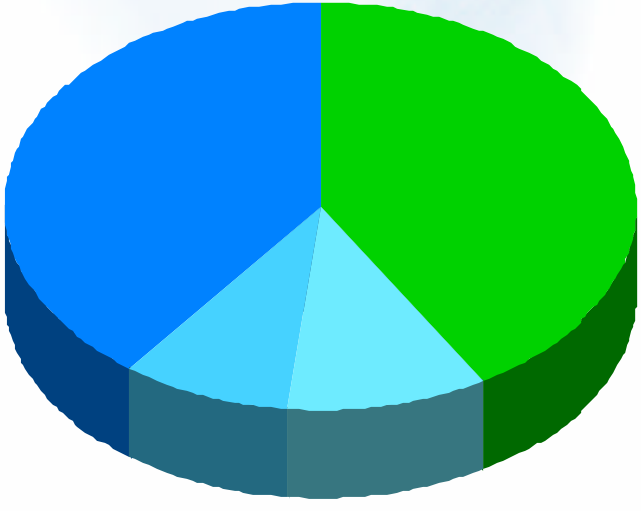
Total Tekes R&D funding in 2003

Total 392 million euros and 2,196 projects



Industrial R&D grants to companies 156 million euros

Research funding for universities and research institutes 162 million euros

Capital loans for R&D to companies 34 million euros

Industrial R&D loans to companies 40 million euros

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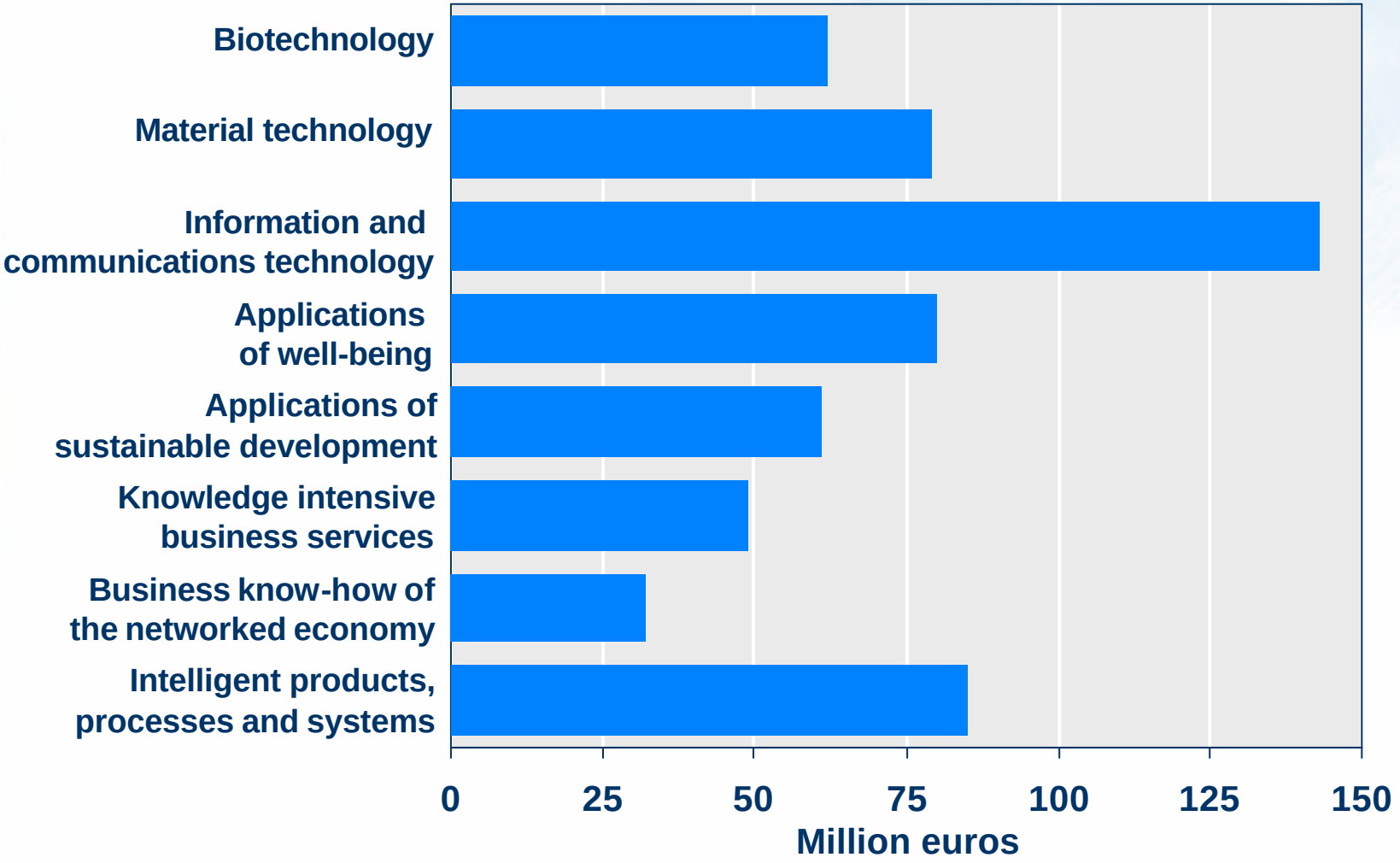
Tekes R&D funding per technology applicatio areas in 2003



Each project may be targeted to several areas.

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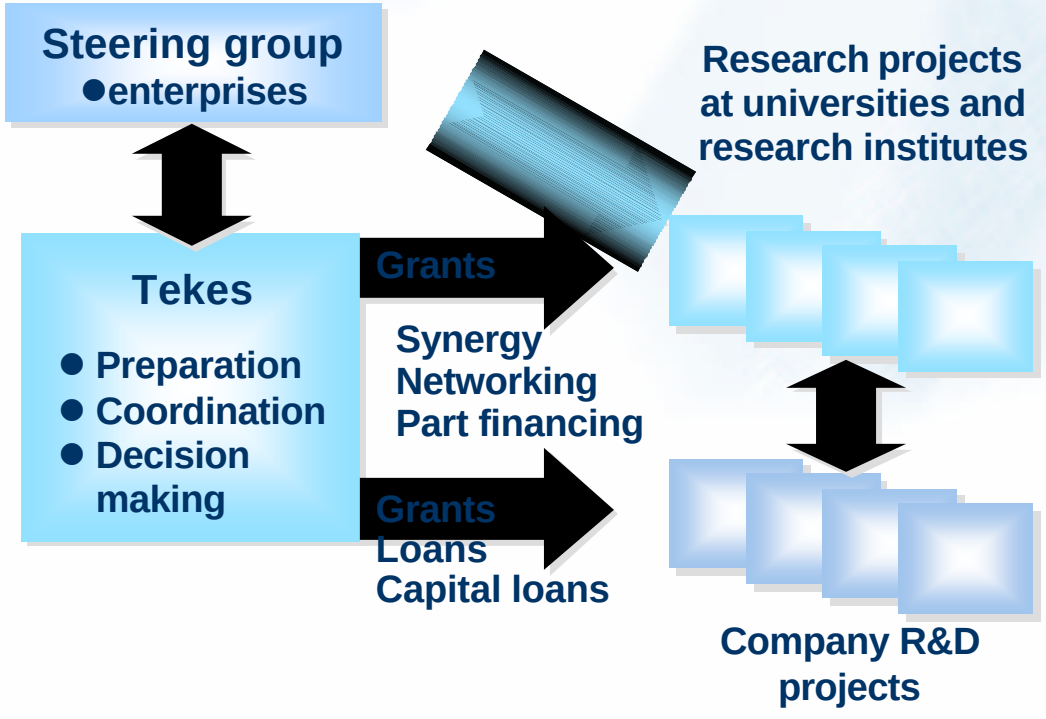
Technology programmes in brief



- 24 ongoing programme the beginning of 2004 v total cost of 1.3 billion
- Each programme typic lasts 3-5 years
- 2,000 company participations annually
- 800 research unit participations annually
- Tekes usually finances
  - 60-80% of university p
  - 25-50% of company pr

Effective utilisation of research results is ensured by scheduling the projects of research institutes and universities concurrently with company R&D projects, and by networking with them.

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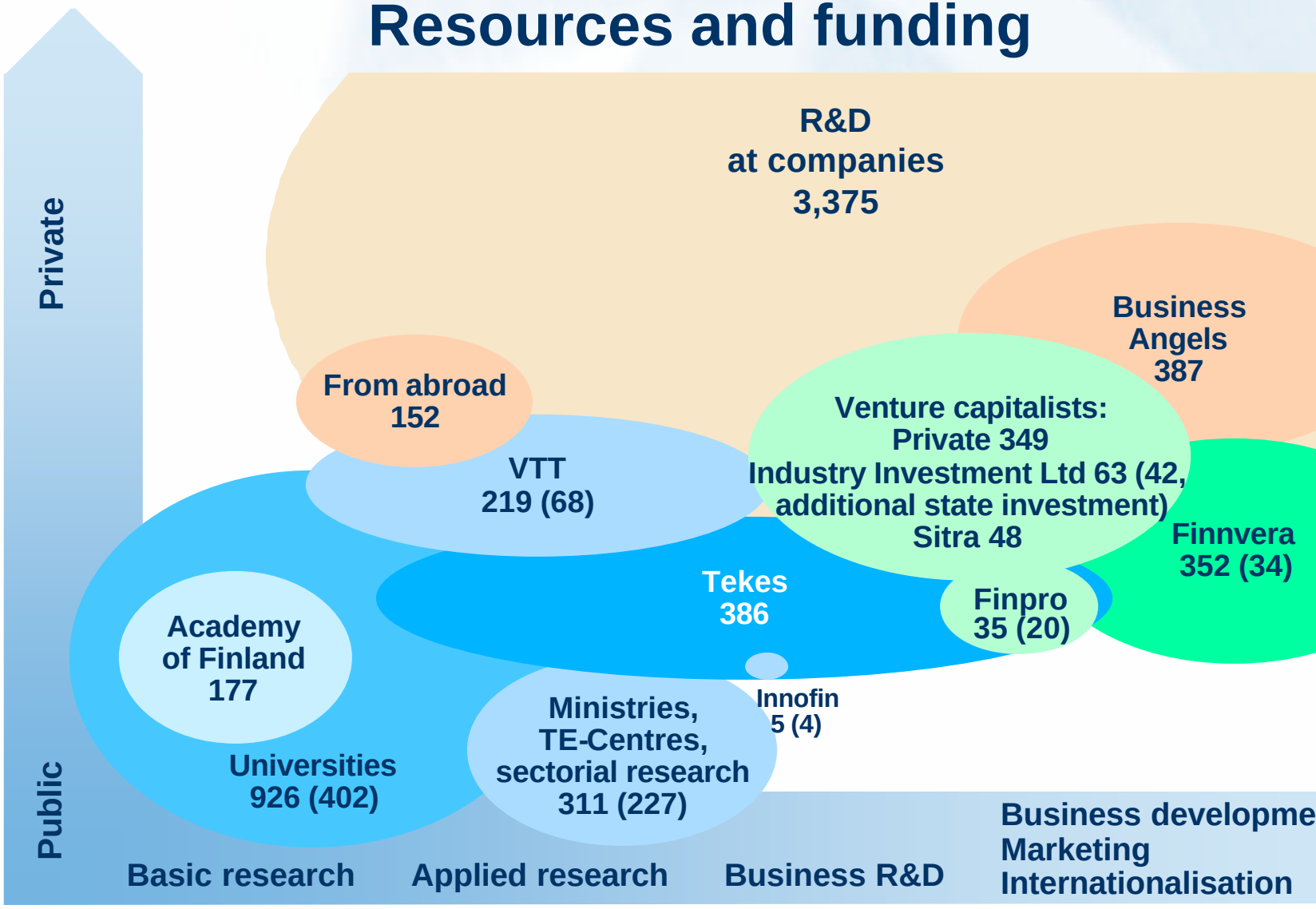
Innovation environment in Finland
Resources and funding



The figures represent the total extent of each organisation in million euros in 2002. In parenthesis the share that is funded from the State budget. The funds of Tekes, the Academy of Finland and Innofin are funded entirely from the State budget.

Preconditions for the success of regions in Finland

- Success of a region depends on the success of companies on global markets
- A core is needed to ensure availability of skilled people and to create and disseminate knowledge: UNIVERSITY, RESEARCH INSTITUTE, POLYTECHNIC
- Effective interchange of information and knowledge between research units and companies: CO-OPERATION
- Low threshold and bureaucracy for start-ups: ENTREPRENEURSHIP a supportive, innovative environment: TECHNOLOGY PARKS AND CENTRES, INCUBATORS
- Pre-seed, seed, R&D and venture capital financing: FLEXIBILITY AND CO-OPERATION IN FINANCING
- Partners on regional, national and international level: NETWORKING, EXPERT SERVICES TO FIND PARTNERS
- Tools and incentives for risk taking and networking
  - TECHNOLOGY PROGRAMMES for technology development
  - TECHNOLOGY CLINICS for technology transfer
  - PRE-SEED INSTRUMENTS for searching ideas and preparing business pl
  - PARALLEL R&D- AND VC-FUNDING for growth and internationalisation o companies

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