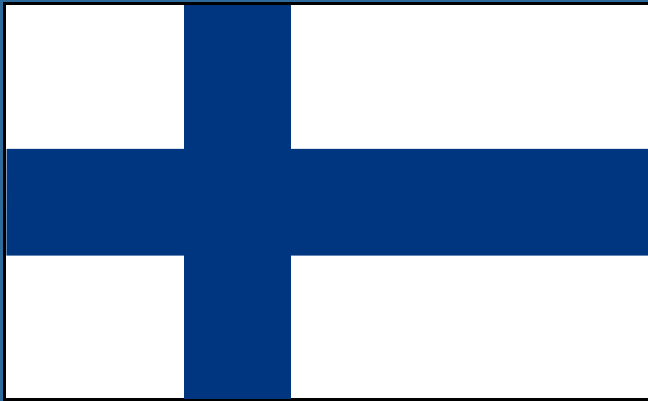


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Christine Hagström-Näsi

Helsinki, Finland

Technology Manager, Tekes

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Stimulating Innovation and Entrepreneurship by Public R&D Financing

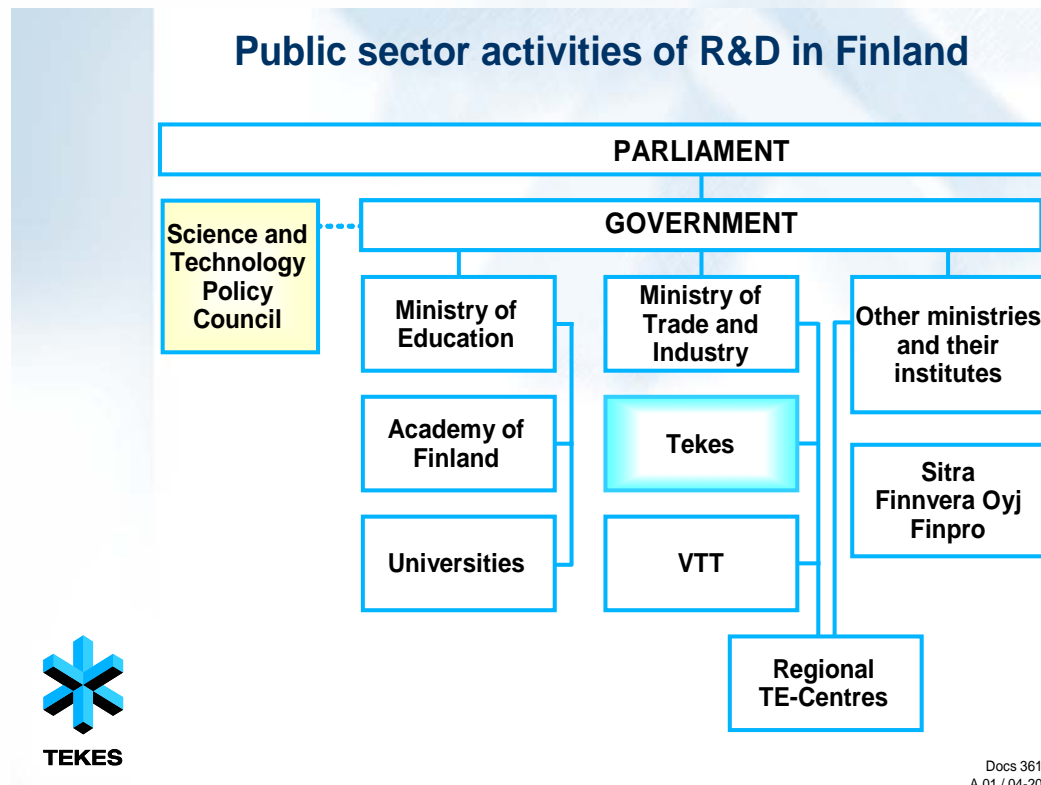
Christine Hagström-Näsi, Tekes



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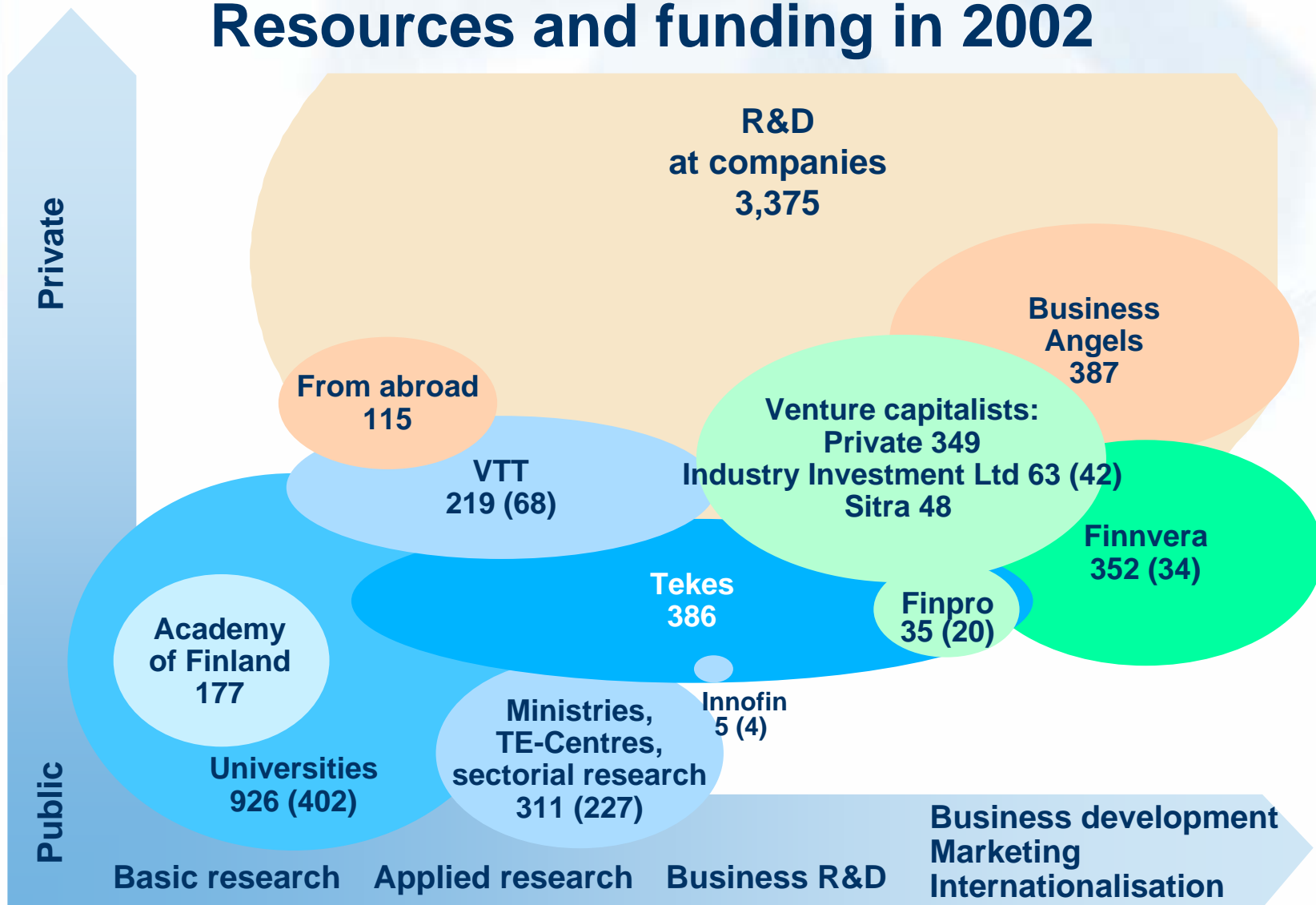
Tekes, The National Technology Agency of Finland

- Tekes is the main financing organisation for applied R&D in Finland. Tekes provides funding and expert services for R&D projects and promotes national and international innovation networking.



The Finnish innovation system

Resources and funding in 2002



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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.

DM 32190

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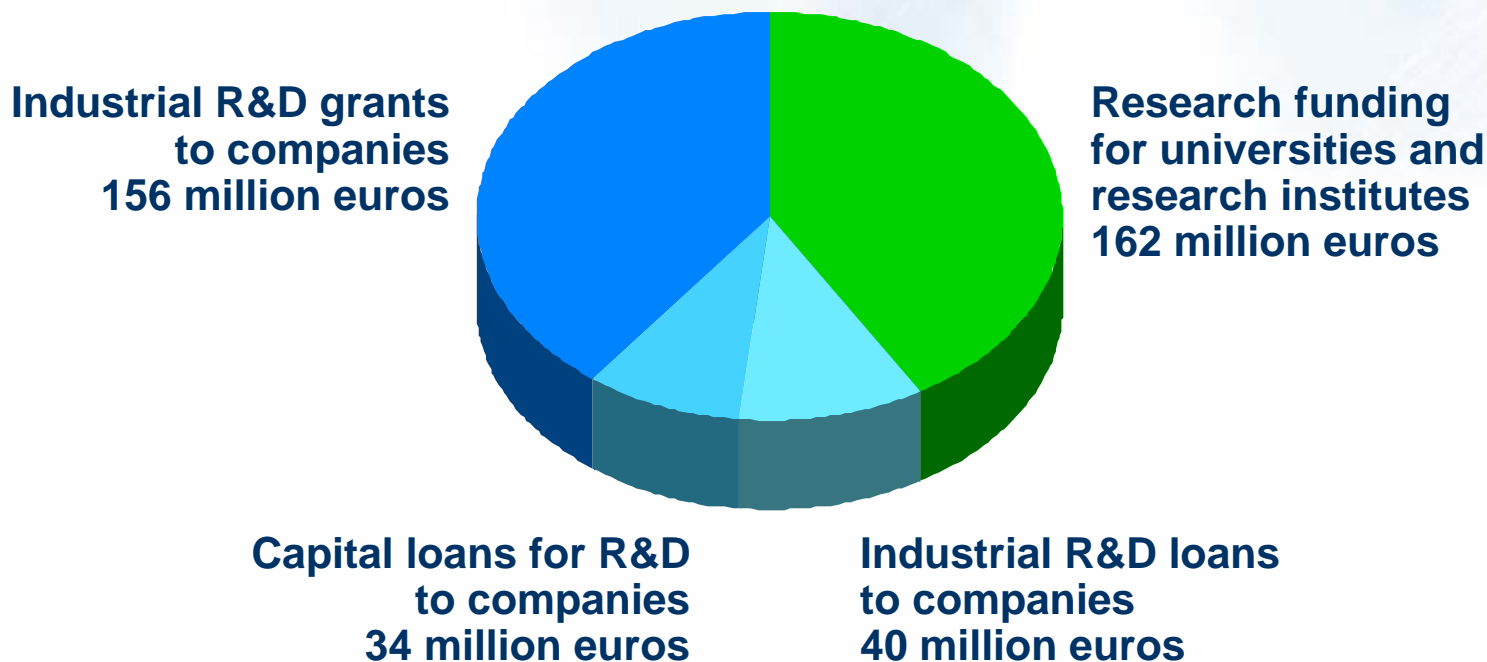
Impact of Tekes activities



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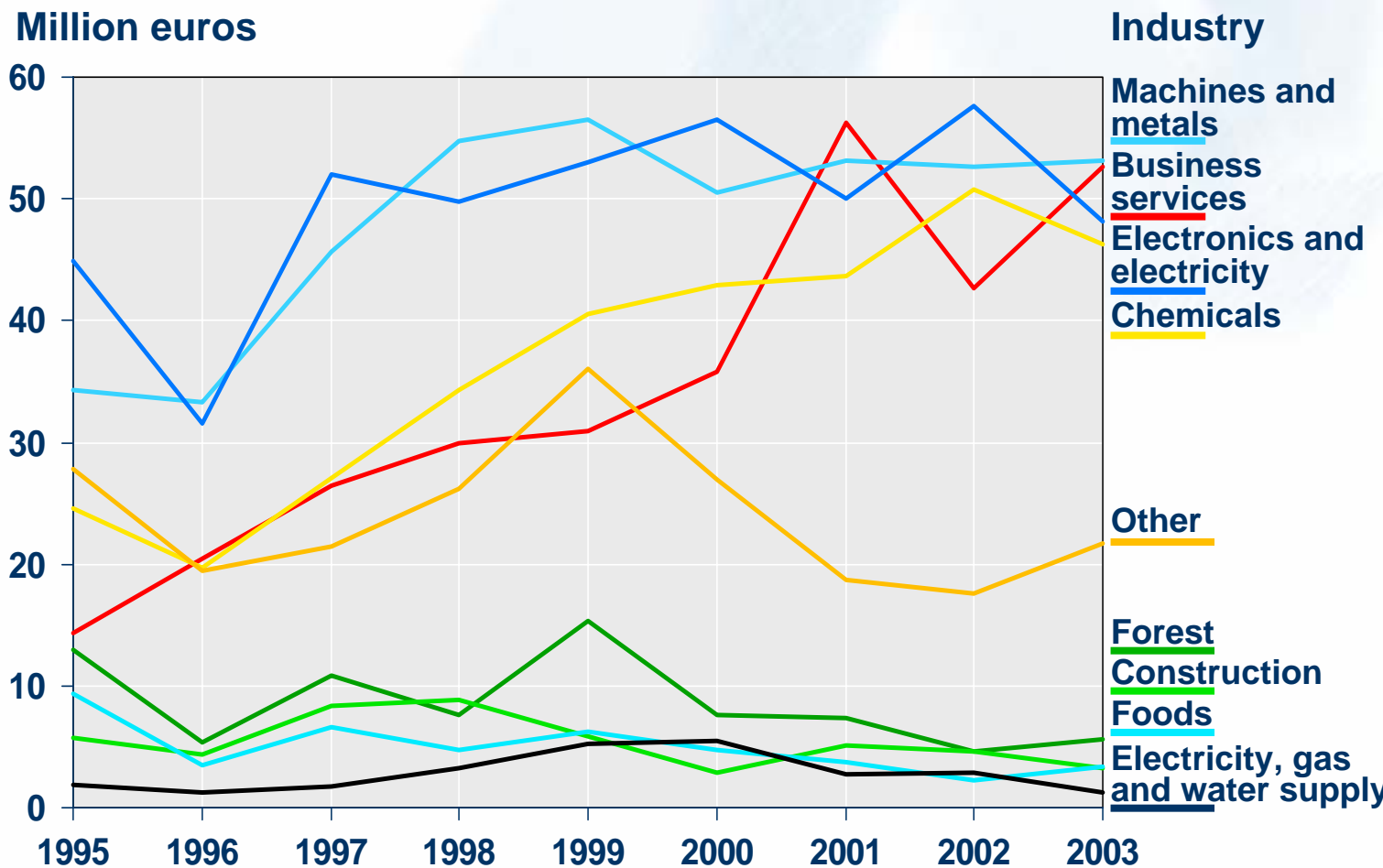
Total Tekes R&D funding in 2003

**Total 392 million euros and
2,196 projects**



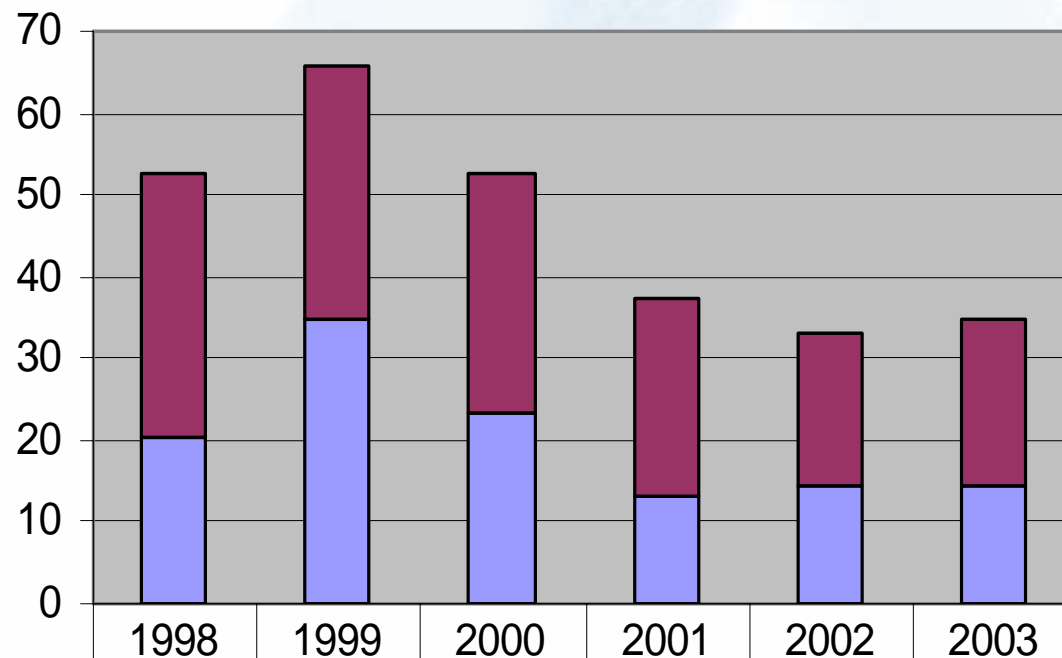
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Tekes R&D funding by industry



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TeKes R&D funding for the forest industry cluster 1998-2003, million euros



■ Companies	32,2	30,6	29,1	24,4	18,9	20,3
■ Public research	20,4	35	23,4	13,0	14,4	14,4

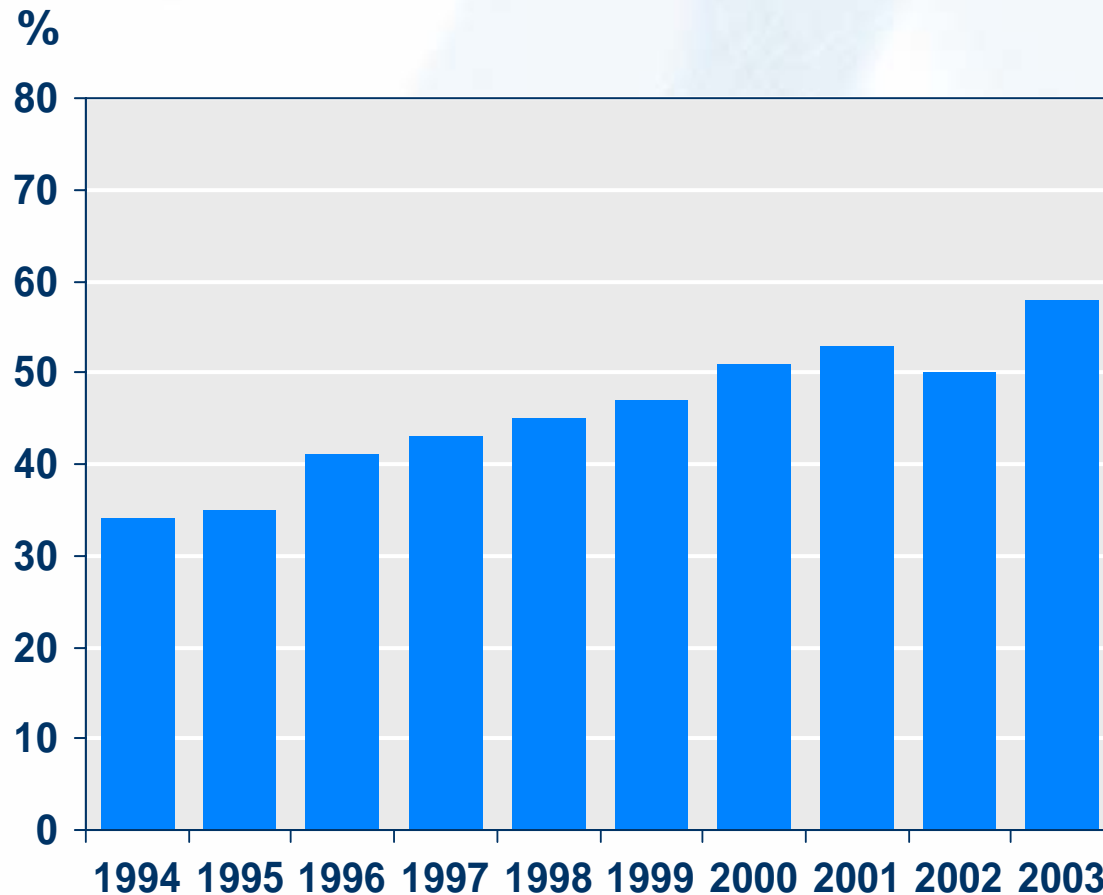


New, Technology-Based Firms

- **Are important for the national economy**
 - Apply new technology efficiently
 - Grow rapidly
 - Create jobs
- **Are significant agents of technology transfer from universities and research institutes**
- **Create return on Tekes' national investment in R&D**
- **Is one of Tekes' focus areas**



SME's share of Tekes R&D funding



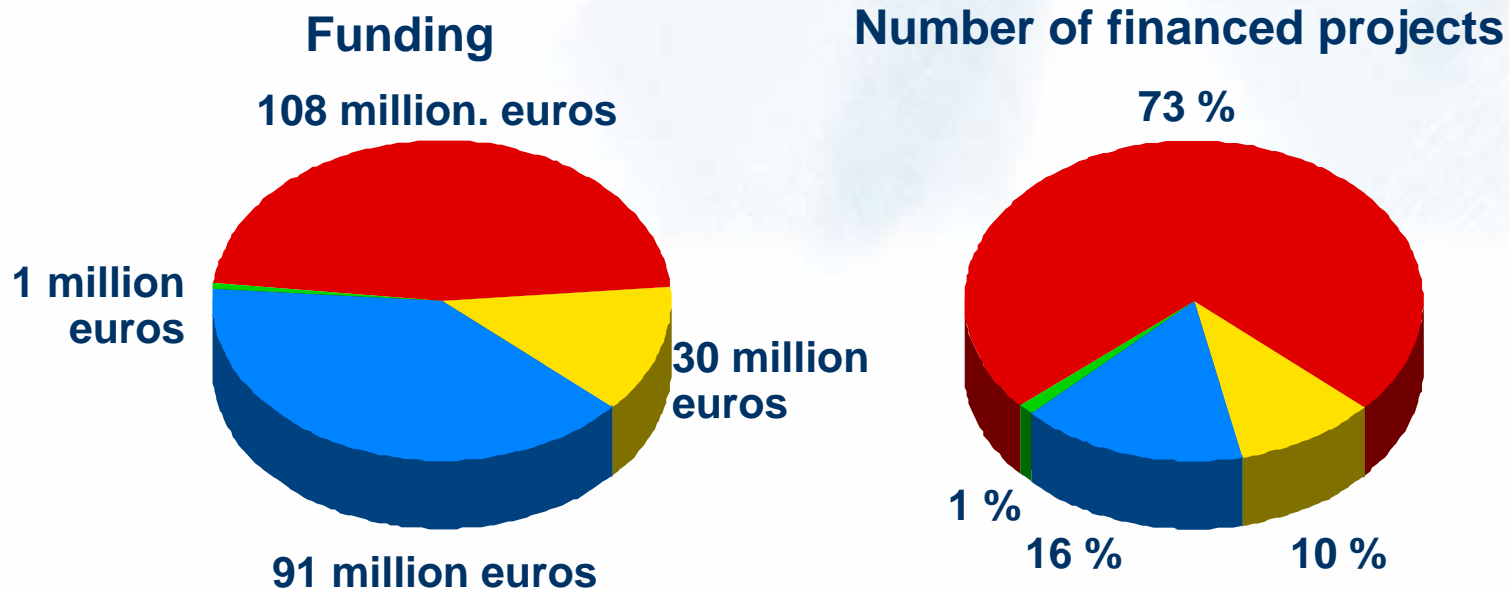
Annually an additional 10-15 million euros was directed towards SMEs through projects in large companies, which increases SME share with 5-8 percentage units.







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Tekes funding for industrial R&D in 2003 by size of company

**Total 230 million euros and
1,395 projects**



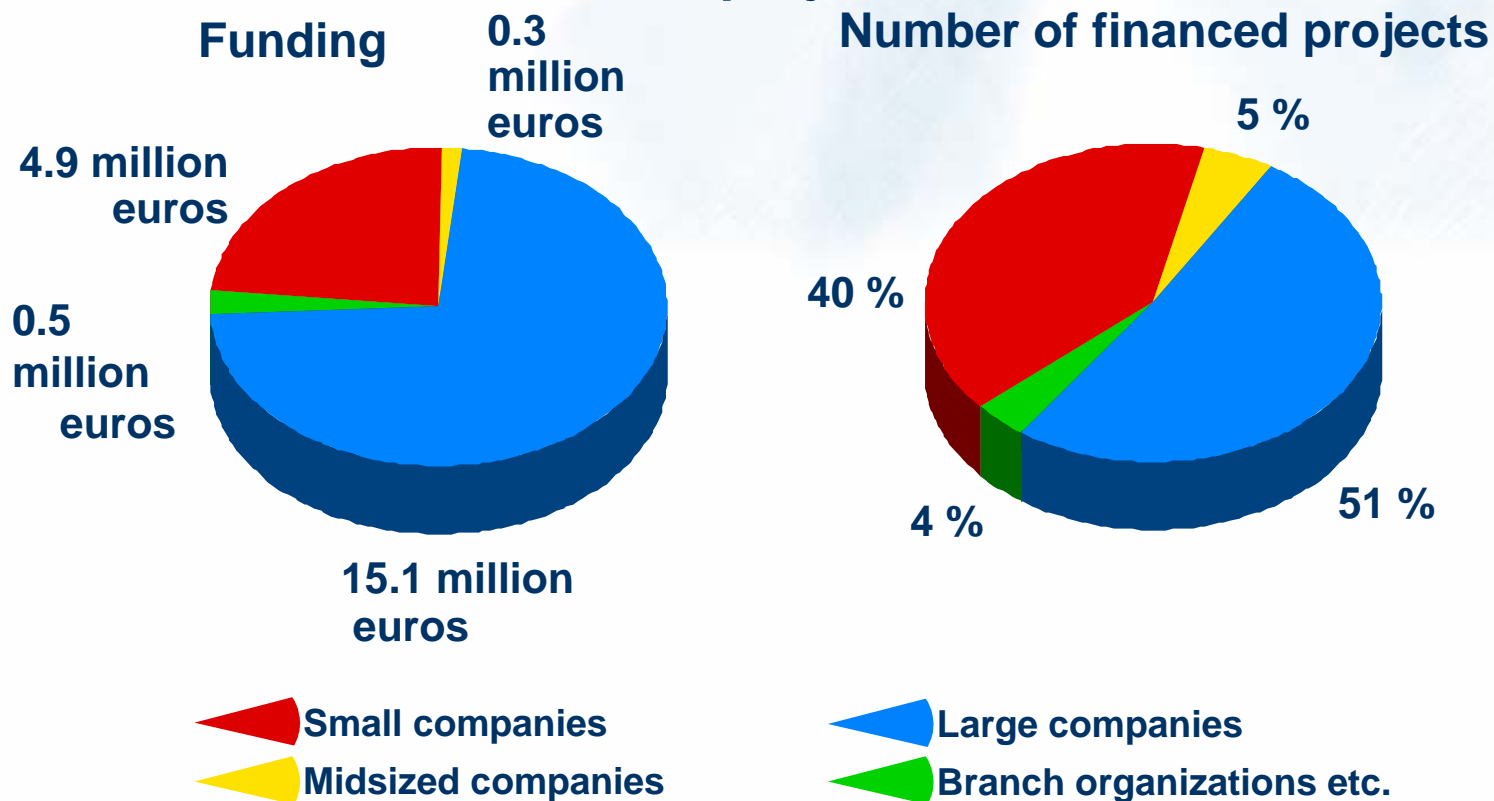
 Small companies
 Midsized companies

 Large companies
 Branch organizations etc.

58 percent of the funding for business R&D was directed towards SMEs and
73 percent towards companies with less than 500 employees.

Tekes funding for industrial R&D in 2003 by size of company in the forest cluster sector

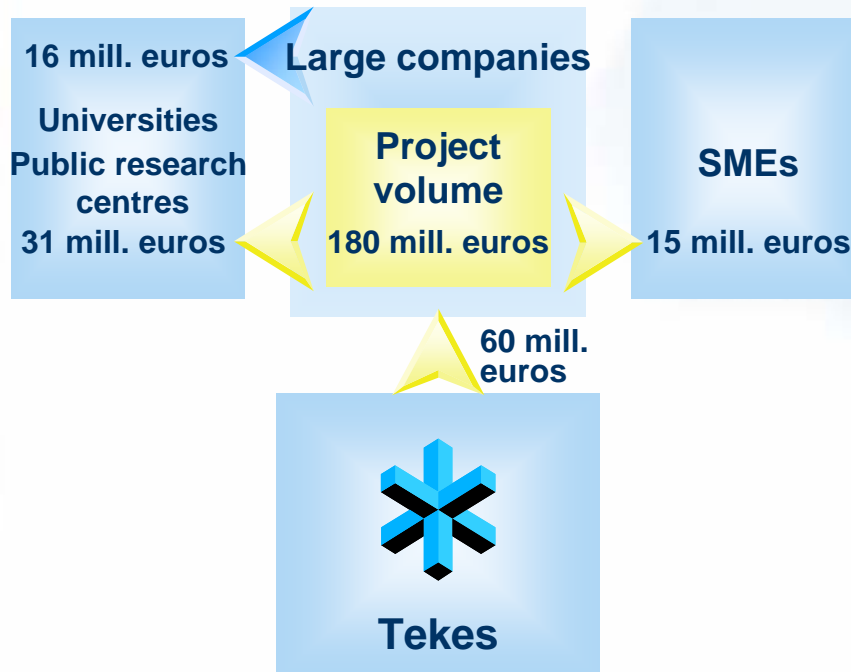
**Total 20.3 million euros and
82 projects**



26 percent of the funding for business R&D was directed towards SMEs and 55 percent towards companies with less than 500 employees.

Funding flows of Tekes funded R&D projects between large companies (more than 500 employees), research organisations and SMEs

Annual average 2000-2002



Funding flows to/from large companies, Million euros

- Tekes funding to R&D projects of large companies + 60
- Large companies projects buy research services from research organisations - 31
- Large companies projects use SMEs as subcontractors - 15
- Large companies co-finance public research projects - 16
- Net flow - 2

Large companies (more than 500 employees) receive 16 % of Tekes total funding and 26 % of Tekes business R&D funding. Large companies co-finance Tekes R&D projects in universities, public research institutes and SMEs more than Tekes finances their projects.

This system is managed by Tekes funding criteria. The system increases the quality of R&D projects and has important externalities in:

- knowledge transfer between large companies and research organisations
- development of SMEs as subcontractors and strategic partners of large companies



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Funding flows of Tekes funded R&D projects between large forest cluster companies, research organisations and SMEs 2003



Funding flows to/from large companies, million euros

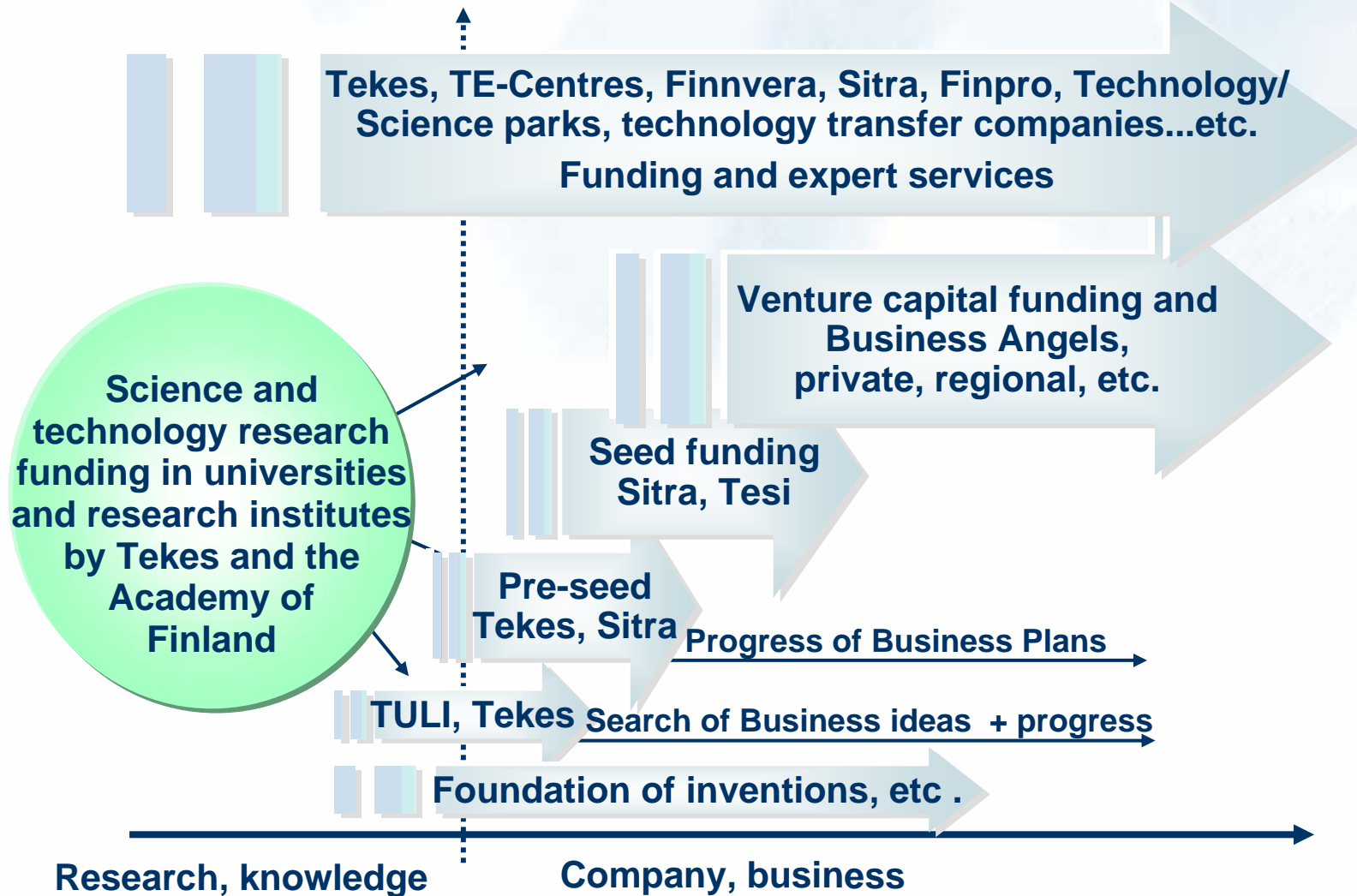
• Tekes funding to R&D projects of large companies	+ 15
• Large companies projects buy research services from research organisations	- 11
• Large companies projects use SMEs as subcontractors	- 2.5
• Large companies co-finance public research projects	- 3.5
• Net flow	- 2

Large forest cluster companies receive 43 % of Tekes total funding and 51 % of Tekes business R&D funding for the forest cluster. Large companies co-finance Tekes R&D projects in universities, public research institutes and SMEs more than Tekes finances their projects. This system is managed by Tekes funding criteria. The system increases the quality of R&D projects and has important externalities in:

- knowledge transfer between large companies and research organisations
- development of SMEs as subcontractors and strategic partners of large companies

New business start ups

Funding and support of technology start ups



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