

**Technopolis experiences in the regional competitiveness
development, cases of Oulu and Airport Vantaa area**

Technopolis Plc

Teppo Kettula



TECHNOPOLIS



TECHNOPOLIS GROUP



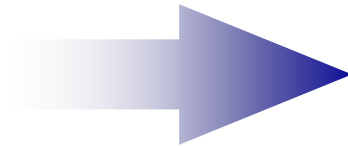
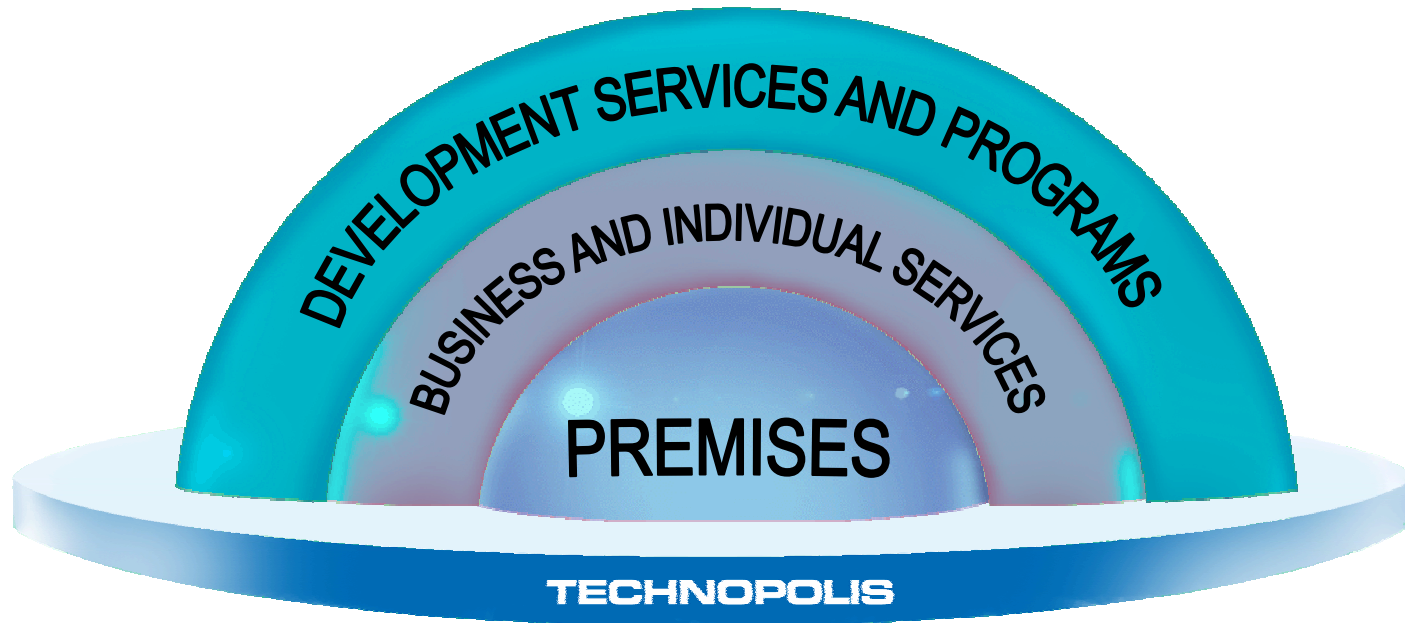
- Biggest in Finland in its field
 - Business environment as a product
 - High tech customers
 - Growing and profitable
 - Operates in the top finnish business regions
 - Hosting over 600 companies
 - Over 8 000 employees in premises
-
- Listed on the main list of the Helsinki Stock Exchange (HEX)



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THE TECHNOPOLIS CONCEPT



**THE OPTIMAL HIGH TECH
BUSINESS ENVIRONMENT**



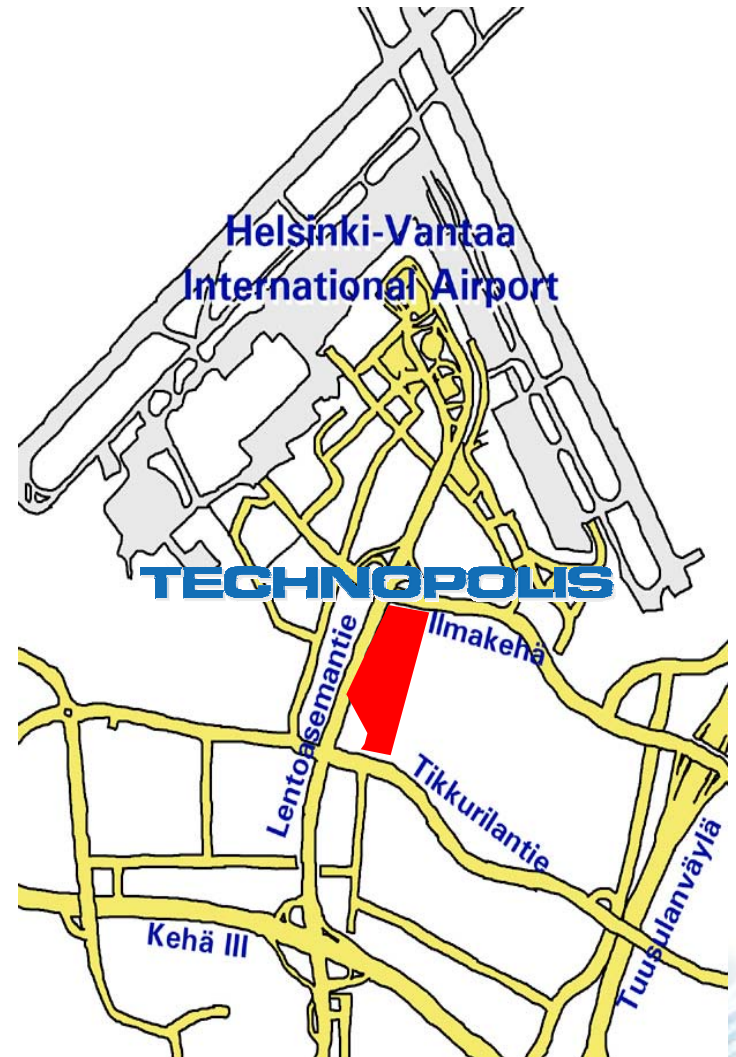
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TECHNOPOLIS OULU



Helsinki-Vantaa **TECHNOPOLIS**



TECHNOPOLIS

TECHNOPOLIS INNOPOLI, ESPOO

- Majority ownership transferred
- Located in the heart of Otaniemi campus area
- Biggest R&D center
- Approx. 1500 employees
- Facilities total 43.000 m²
- Approx. 250 companies



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Business and personnel services
in high technology environments



BUSINESS SERVICES

- Telecommunication services
- Switchboard, phone extentions
- Reception services
- Access control, security
- Conference services
- Mail services
- Office services, copying, printing jobs, secreterial services, equipment and furniture rental
- Staff hire - office and assistant
- Facility maintenance and environmental services
- Office cleaning, removal services
- Confidential data destruction services
- Service Management - comprehensive facility services



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Oulu region is internationally known for high-tech development



- The determined cooperation between the University and the city of Oulu started already in the 70's
 - Nokia military radio project, factory 1973
 - Heart rate monitor by Polar Electro, 1975
- "The Miracle of Oulu" refers to the educational and technological quantum leap that the City of Oulu and the neighboring region took in the 1980s and 1990s
 - Nokia (Nordic Mobile Telephones) NMT phones, 1981
 - Nokia GSM basestations, 1991
- 2G -3G - 4G development phases the last 15 years
 - Nokia WCDMA infrastructure, 2000



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Reasons for development in Oulu

- Great innovation potential
- Entrepreneurs and entrepreneurship
- Local, national and international venture capitalists are present
- Interesting high-tech-companies are born annually
- Presence of major industry players



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Oulu today



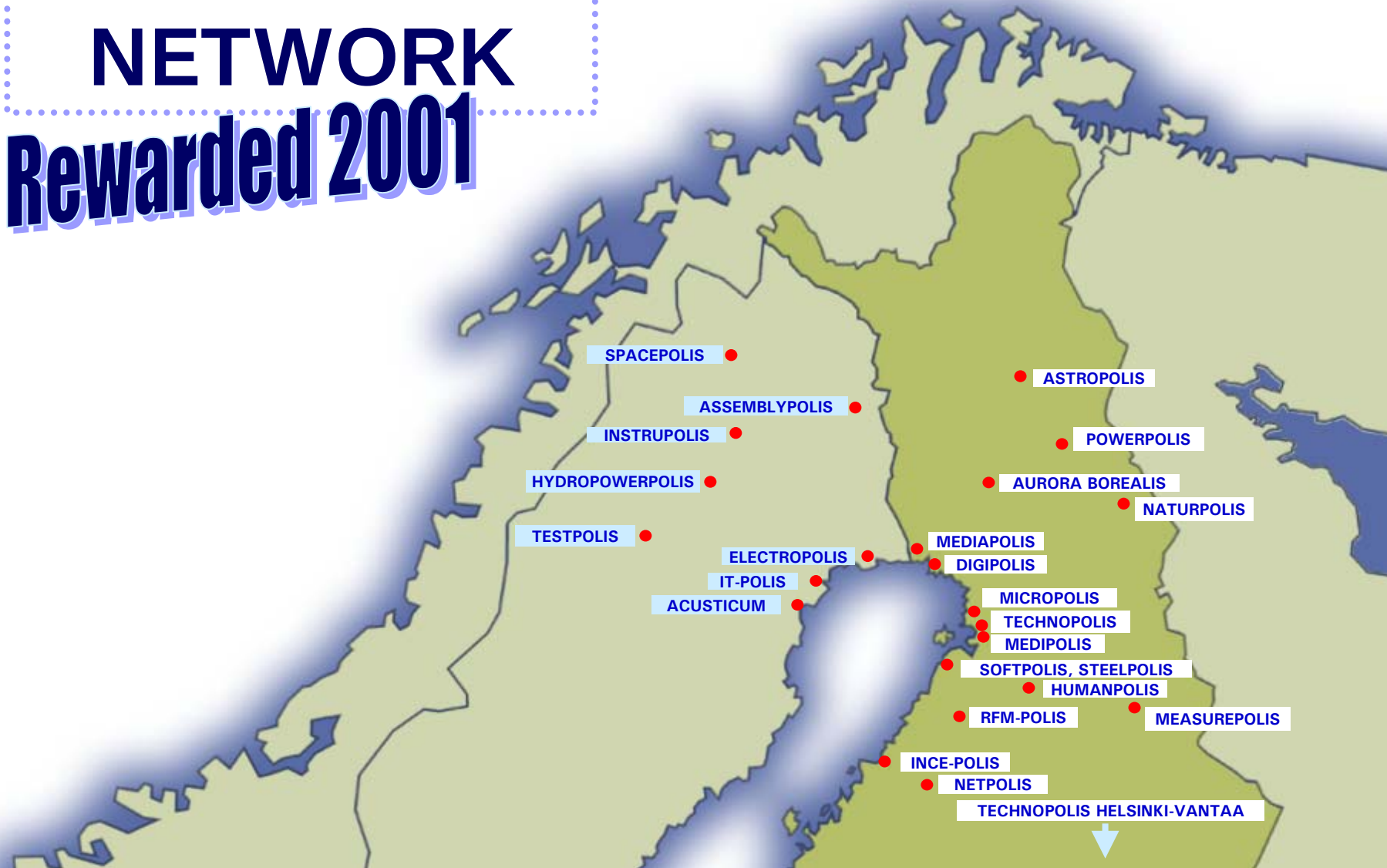
- A global leader in wireless communication
- A region of 200,000 people, 15,000 hightech jobs
- The hightech industry's annual turnover is 4.3 billion euros
- A university with 16,000 students and 5,000 in the technology faculty. A polytechnic with 7,000 students, of which 3,200 in the field of technology and communications
- Hourly flights to Helsinki and Stockholm from Oulu's international airport, the second busiest airport in Finland after Helsinki-Vantaa.
- An important logistics center with a harbor city on the coast of the Gulf of Bothnia and major land transportation facilities
- A natural environment with four distinct seasons a year.



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MULTIPOLIS NETWORK Rewarded 2001





CENTRES OF EXPERTISE

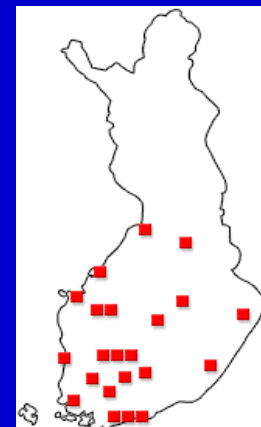
THE OULU MODEL EXPANDED 1994

- To create and implement strategic development programmes within the growth sectors
- To promote the co-operation between the companies and the research and education institutes
- To create a competitive operating environment for the companies



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Agropolis

Carelian Science Park

Culminatum

Finn-Medi Research

Foodwest

Helsinki Business & Science Park

Hämeenlinna Technology Centre

Jyväskylä Science Park

Kajaani Science Park

Ketek

Kuopio Technology Centre Teknia

Media Tampere

Lahti Science and Business Park

Otaniemi Science Park

PrizzTech

Seinäjoki Technology Centre

Tampere Technology Centre

Technopolis Plc.

TechVilla

Technology Centre Kareltek

Technology Centre Merinova

Turku Science Park

National Network of Science Parks

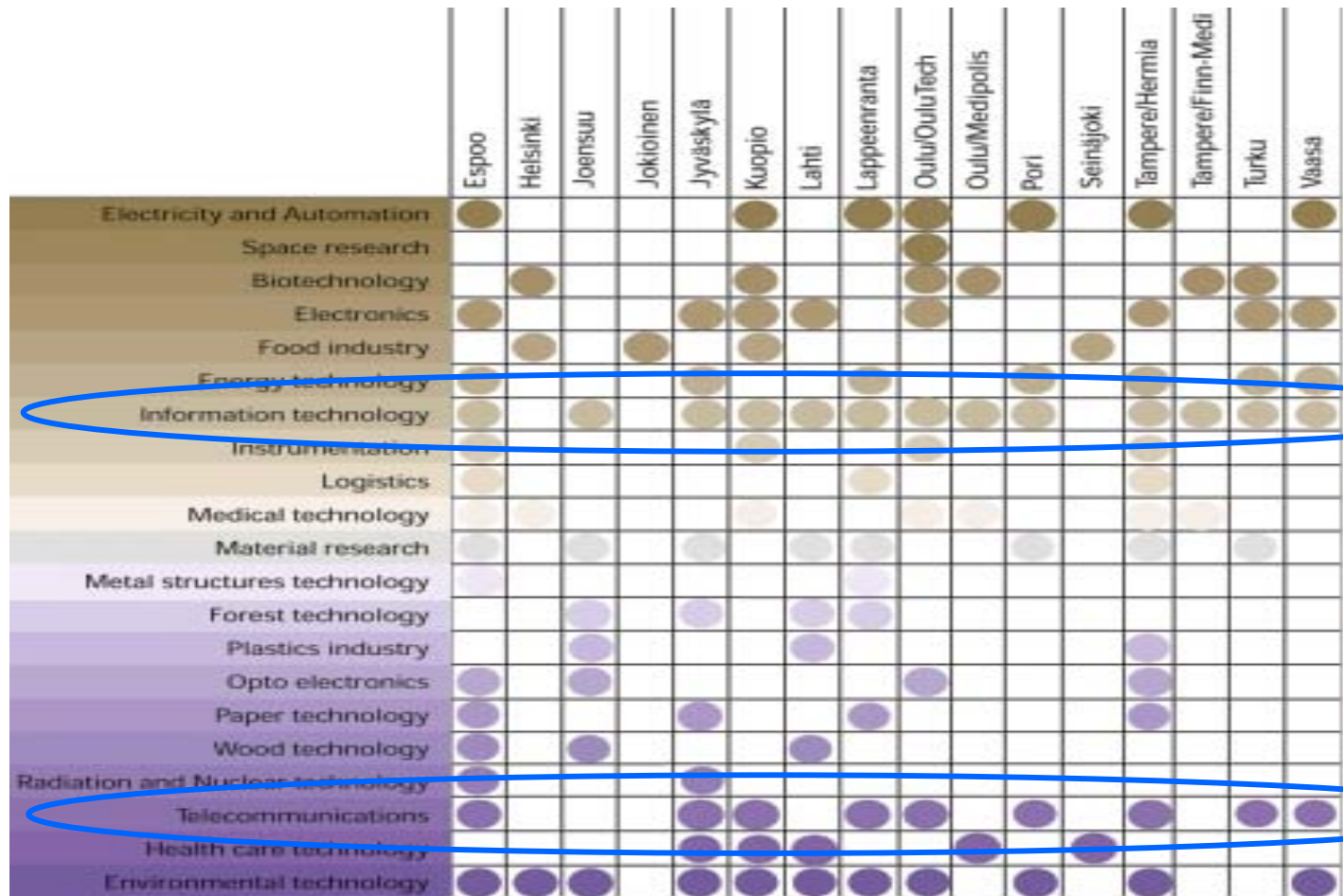


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Source: TEKEL 14.1.2004

ICT cluster is the keystone in the main finnish science parks



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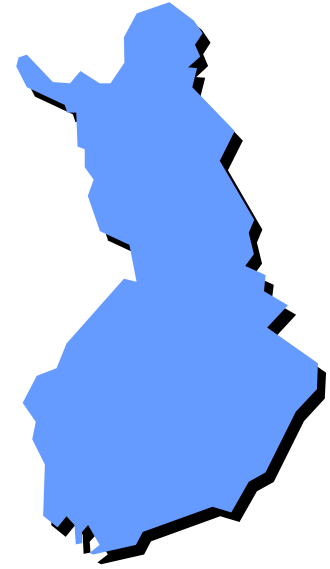




Research, Development and Business Programme for Future Mobile Services and Products

EXCELLENCE IN NETWORKED MOBILE SERVICES WWW.MOBILEFORUM.ORG





Wireless testing environment (national coverage)

- more advanced than the commercial networks
- constantly updated, state-of-the-art mobile technology enablers
- committed for OMA standards The OMA logo consists of a circular icon with five colored dots (red, yellow, green, blue, and purple) arranged in a circle, followed by the text "oma" in a bold, sans-serif font, and "Open Mobile Alliance" in a smaller font below it.
- GSM/GPRS/EDGE* network intended only for testing purpose
- test user groups

*) Available only in Oulu region



In Metropolitan area there are...

- 9 Science universities
- 7 Colleges
- employing over 70 000 students

Science Universities

- » Helsinki School of Economics
- » Helsinki University
- » Helsinki University of Technology
- » Swedish School of Economics
- » Arts Academy
- » Military Academy
- » Sibelius-Academy
- » Theatre Academy
- » University of Arts and Design

Colleges

- » Diakonia - College
- » Helsinki College Stadia
- » Helsinki Business Institute
- » Haaga Institute
- » Espoon-Vantaan Institute of Technology
- » Arcada - Nylands Swedish College
- » Laurea - College



... and over 20 public and private research

centers:

- VTT The National Research Centre
- Stakes
- Res. Institute of Finnish Economy ETLA
- Finnish Meteorological Institute
- Natl. Public Health Institute
- Institute for occupational health
- HIIT (Helsinki Institute of Information Technology)
- TAI Research Centre / HUT
- KCL-Keskuslaboratorio Oy (forest industry)
- LTT -Tutkimus Oy / HSE
- BioMedicum / UH & HUS
- TechnoMedicum / UH & HUT
- Game and Fisheries Res. Inst.
- Agrifood Research Finland



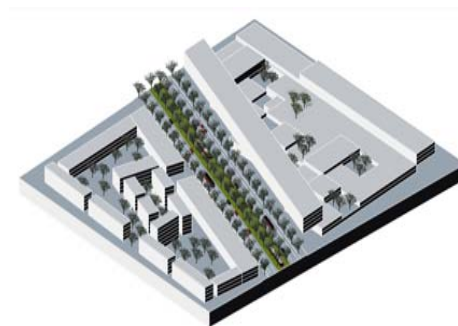
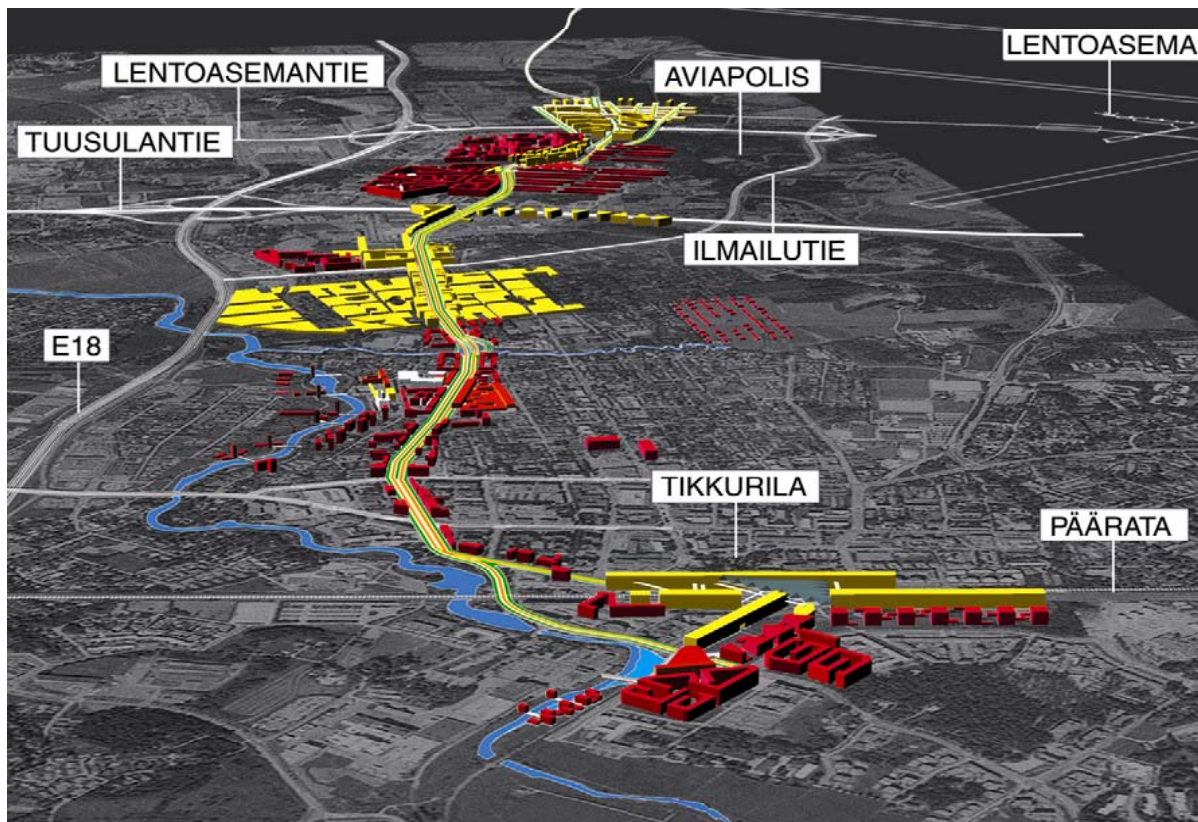
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VANTAA HI-TECH
PROGRAM

K2 - PLAN: New city centre boulevard connecting airport, hitech and present infrastructure



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TECHNOPOLIS HELSINKI - VANTAA

- The Technopolis concept
- Uniquely good location by the international airport
- A major enterprise center
- Construction begun 2002
- 1st stage completed in June 2003
- 2nd stage completed in April 2004
- Total size 64,000 m²
- More than 3 000 employees





VANTAA HI-TECH
PROGRAM

Kartanonkoski - part of the plan already realized

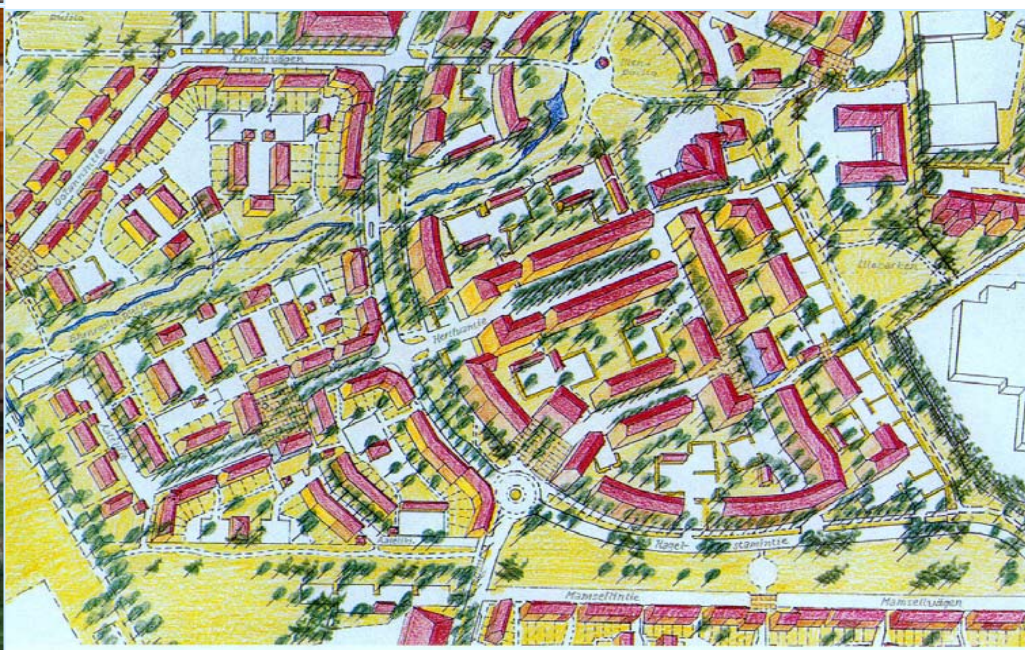


1600 apartments, 3000 people

South of Aviapolis

In the vicinity of central parks and
Vantaa river

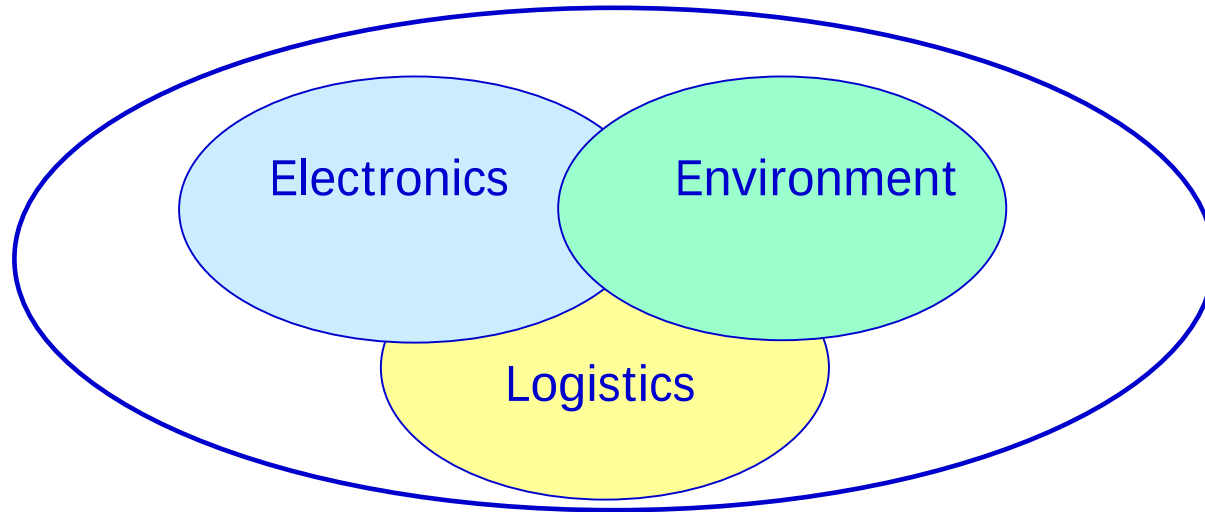
International schools and
kindergardens located in the area



What are Vantaa Hi-tech Program's focus areas?



Welfare products and services



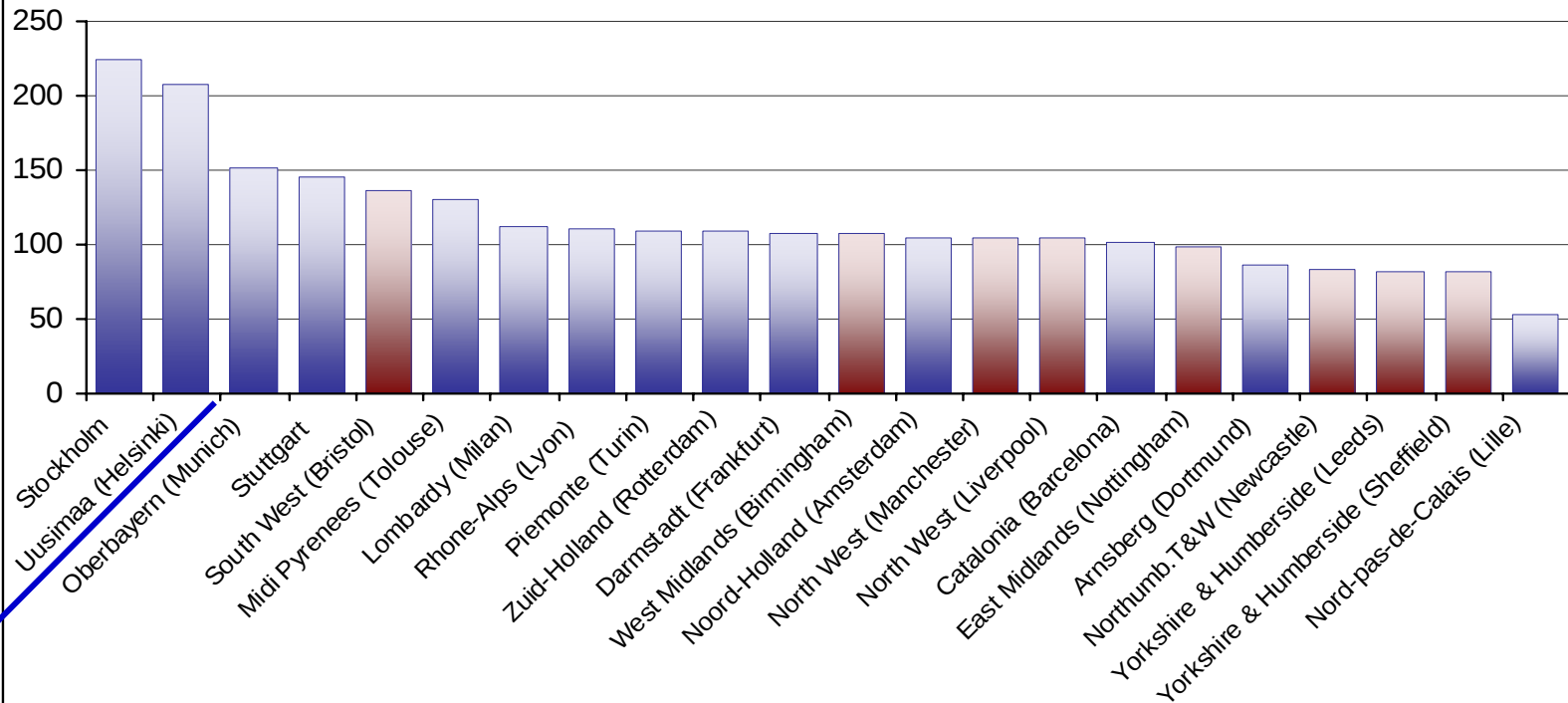
Telecommunication services



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European Innovation Scoreboard 2002: EU Regions

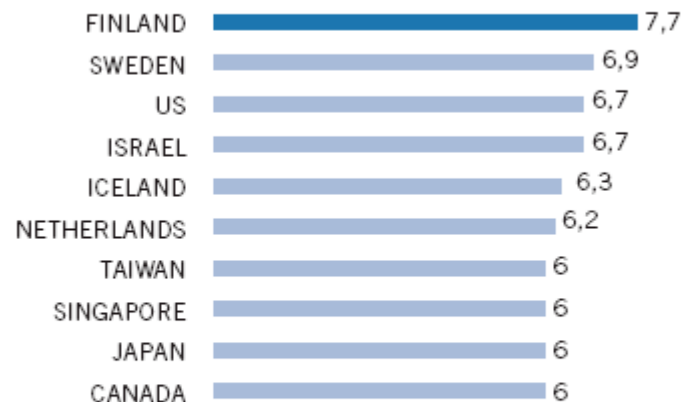


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Finland functions as a test bench in the ICT sector

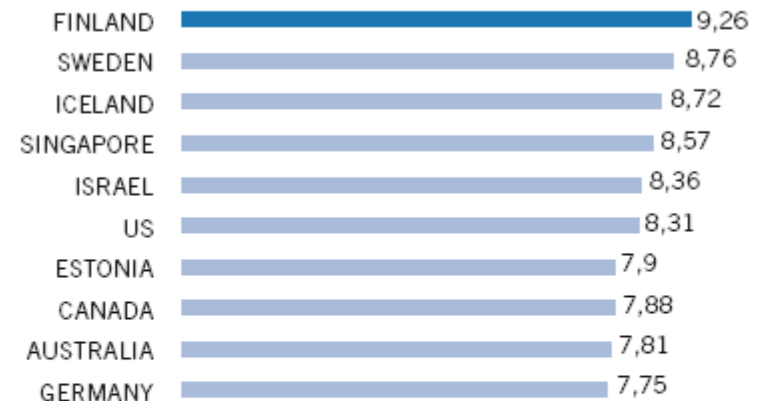
Technological cooperation



A score of 8 shows that cooperation is common between companies and in Oulu cooperation is the name of the game

Source: IMD, 2001

New information technology



New information technology and its implementation meet business requirements. The graph shows survey results on a scale from 0 to 10, where 10 is excellent.

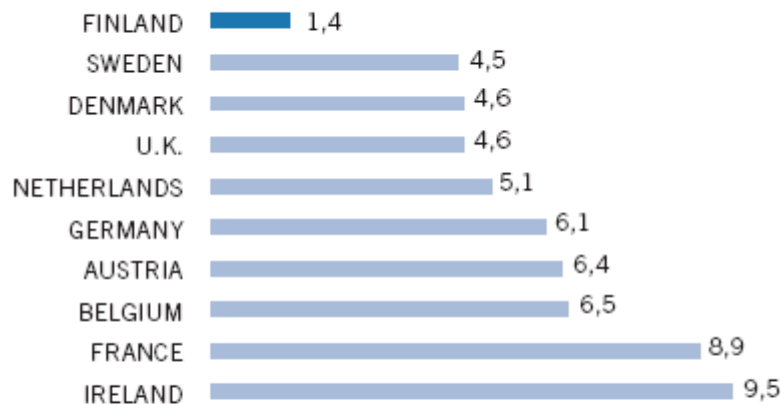
Source: IMD, The World Competitiveness Yearbook 2001



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Being present where the development occurs provides world class players co-operation possibilities and "silent information"

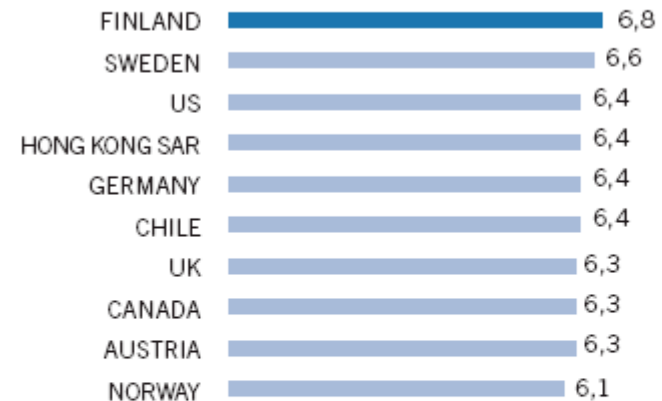
Most favorable business climate



Average rank; the survey benchmarked EU countries using eight factors: information society, innovation, R&D, liberalization, network industries, financial services, social inclusion and sustainable development.

Source: World Economic Forum, September 2002

Quality of competition in the telecom sector



"Is competition in the telecom sector sufficient to ensure high quality, infrequent interruptions, and low prices?" 1= no, 7= yes, equal to the world's best

Source: The Global Competitiveness Report, 2001/2002



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Vantaa Hitech Program secures good exertion point for international companies

- Vantaa Hitech Program supports following platform initiatives:



Mobile & Software testing facility

Electronics production pilot plant (Electria)



Centre of expertise in Logistics

Health care & testing centre (Welfare Center)

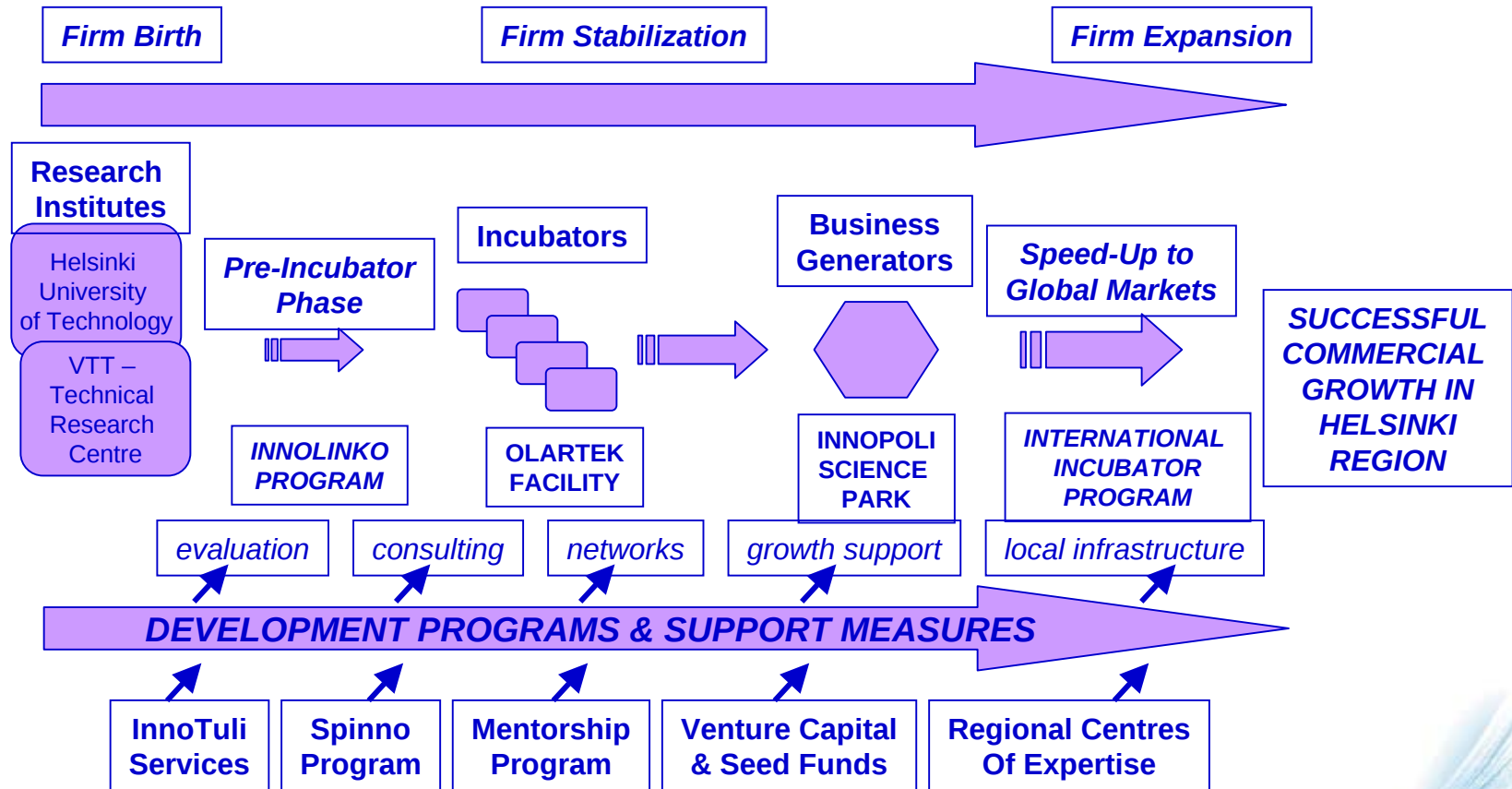
International trade (International Incubator)



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Helsinki Region Business Creation Park – Staged Incubation Model



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Reasons for locating in Finnish science park environments

- Fast access to European networks
 - Science parks are solid partners in national and European R&D network
 - Perfect Europe - Asia logistics for people and products
- Efficiency through business support
 - Especially beneficial to foreign companies
- Scalability of operations
 - Access to key expertise and educated workforce
 - Advantage also to global companies



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Domo arigatoo Gosaimasu! - Kiitos!



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