

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

# **Technopolis Plc**

**Teppo Kettula**



**TECHNOPOLIS**



# TECHNOPOLIS GROUP



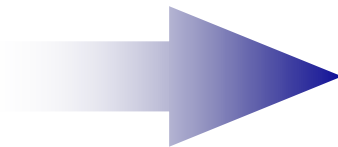
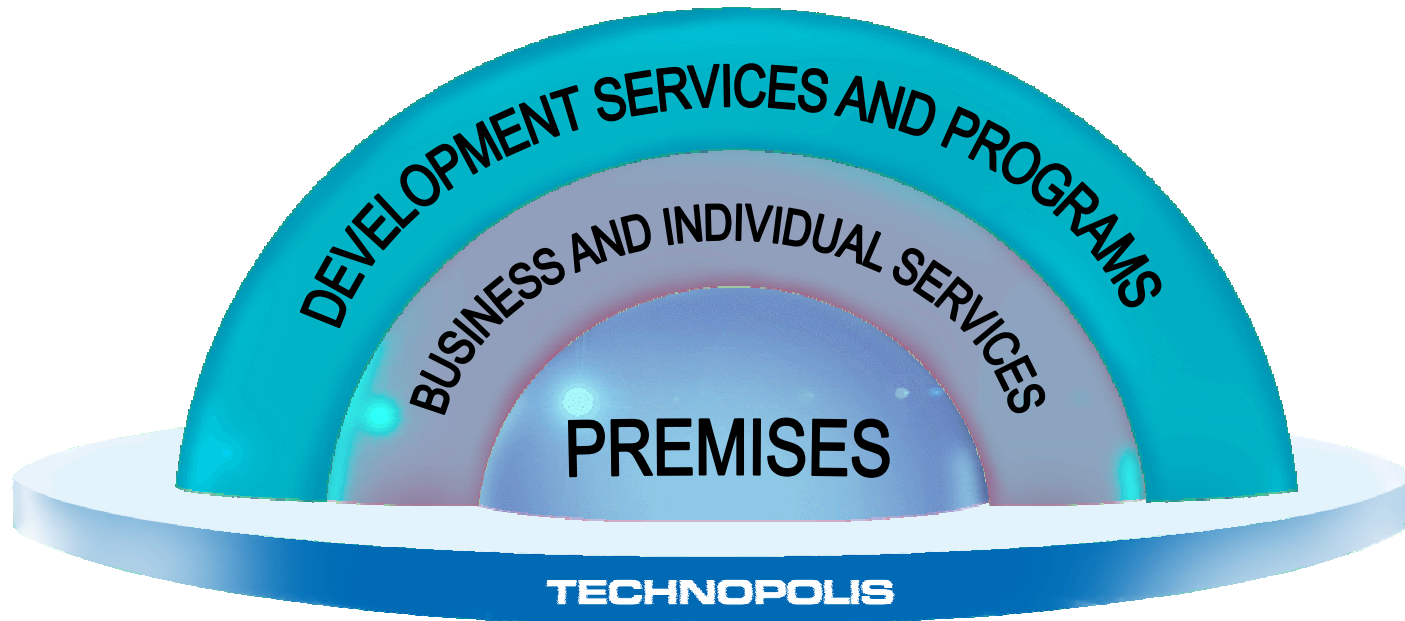
- Biggest in Finland in its field
  - Business environment as a product
  - High tech customers
  - Growing and profitable
  - Operates in the top Finnish business regions
  - Hosting over 600 companies
  - Over 8 000 employees in premises
- 
- Listed on the main list of the Helsinki Stock Exchange (HEX)



**TECHNOPOLIS**



# THE TECHNOPOLIS CONCEPT



**THE OPTIMAL HIGH TECH  
BUSINESS ENVIRONMENT**



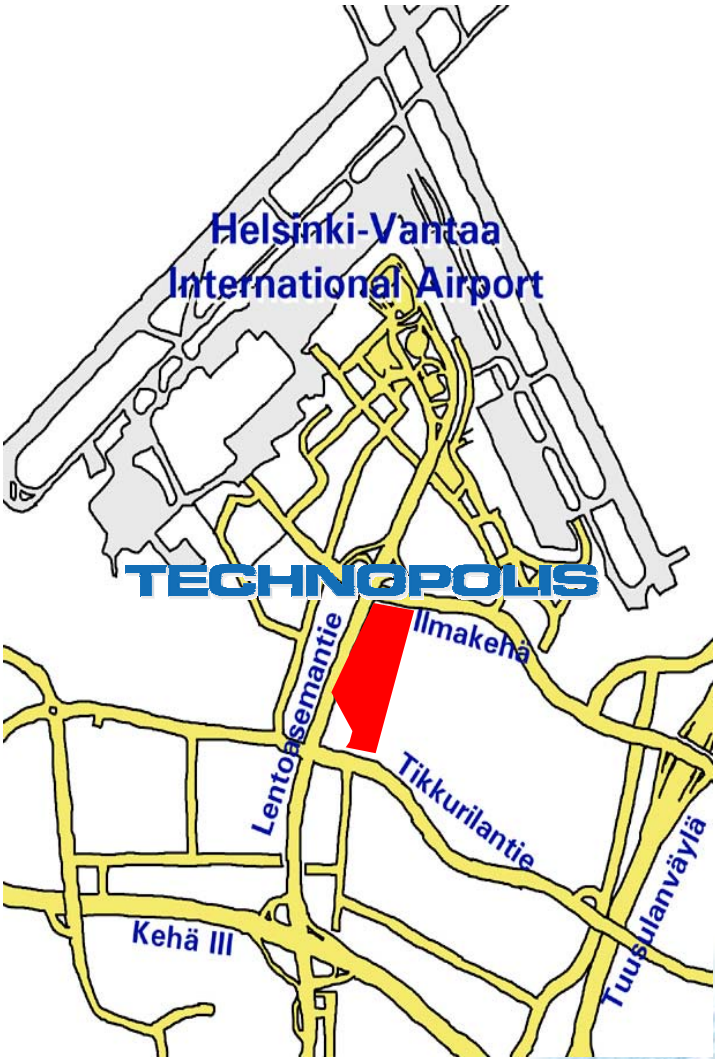
**TECHNOPOLIS**



# 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 m<sup>2</sup>
- Approx. 250 companies



**TECHNOPOLIS**

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



**TECHNOPOLIS**



# 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´
  - 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



**TECHNOPOLIS**





# 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



**NOKIA**  
CONNECTING PEOPLE

**T** tellabs®

 MICROCELL

**FUJITSU**

TeliaSonera



**TECHNOPOLIS**



# Oulu today



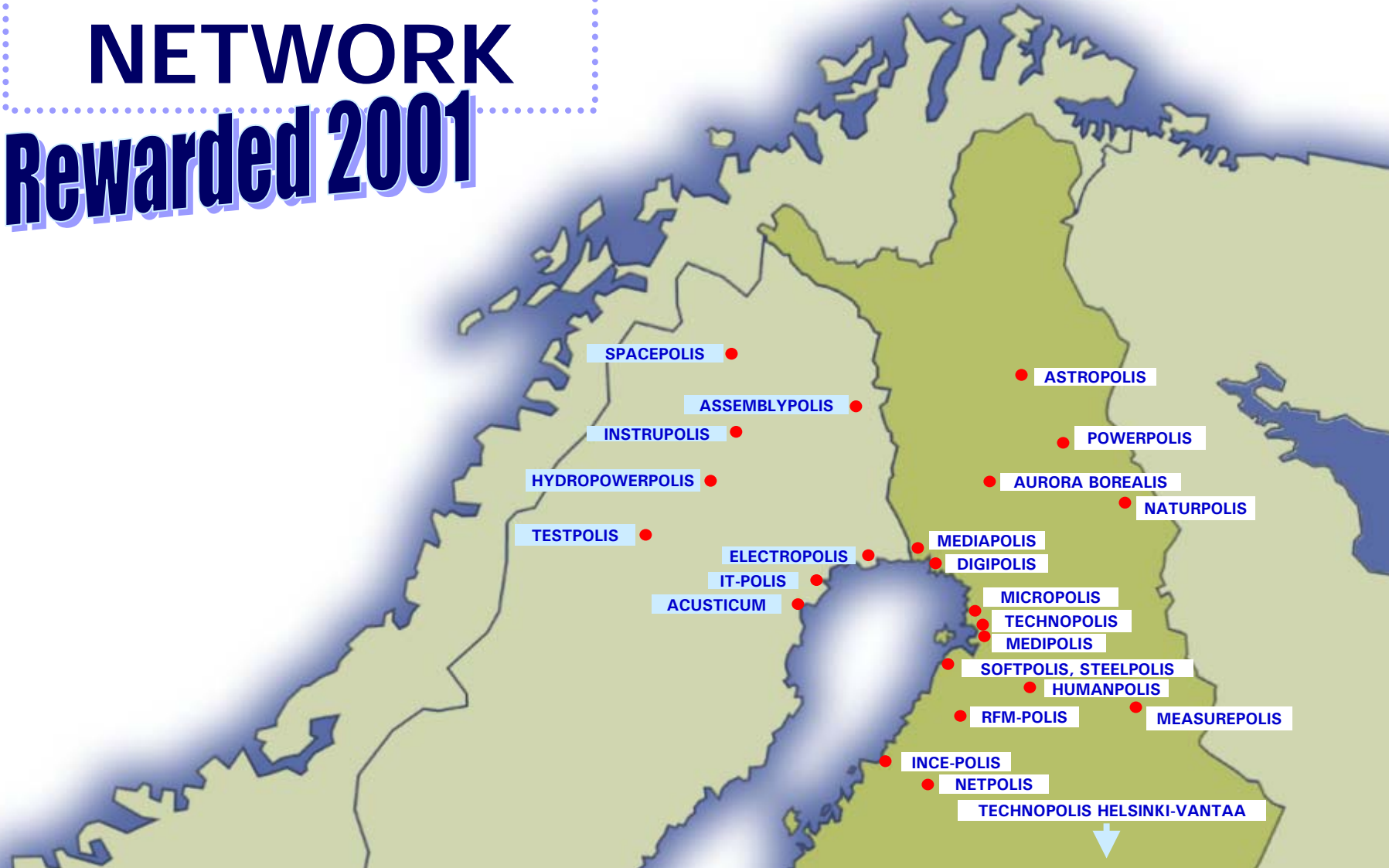
- A global leader in wireless communication
- A region of 200,000 people, 15,000 hightech jobs
- The hightech industry's annual turnover is 4.3 billion euros
- A university with 16,000 students and 5,000 in the technology faculty. A polytechnic with 7,000 students, of which 3,200 in the field of technology 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.



**TECHNOPOLIS**



# MULTIPOLIS NETWORK Rewarded 2001





## CENTRES OF EXPERTISE

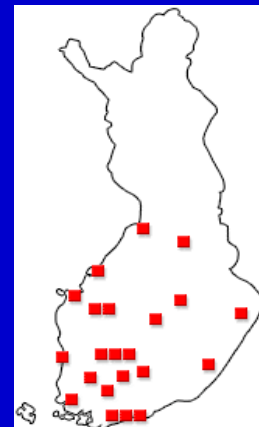
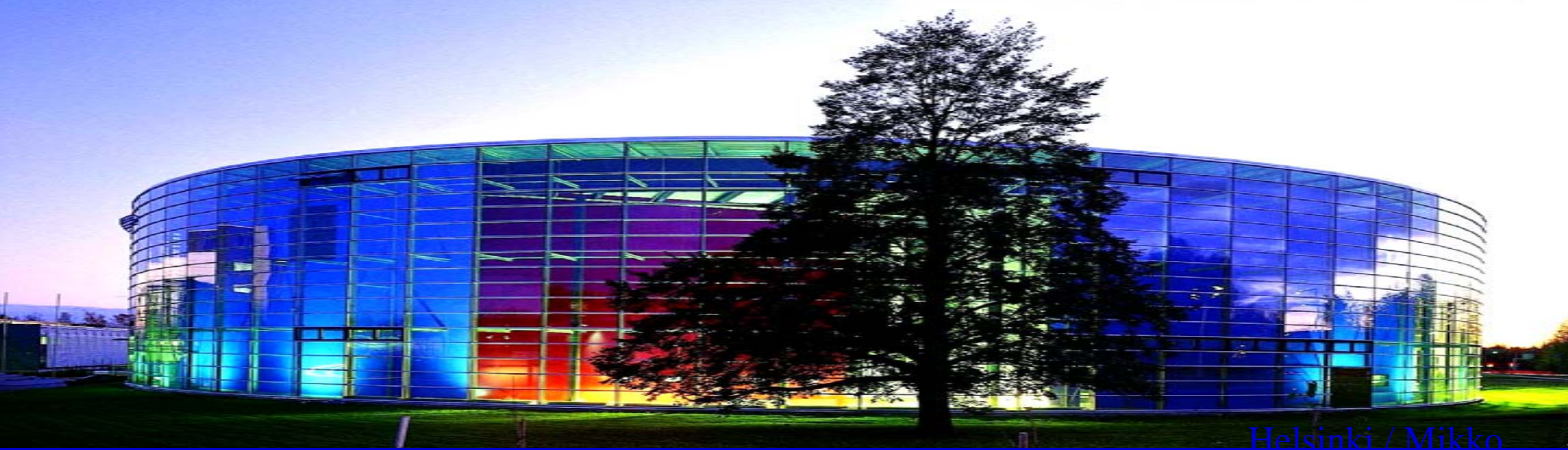
### THE OULU MODEL EXPANDED 1994

- 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



**TECHNOPOLIS**





**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 Kareltech**

**Technology Centre Merinova**

**Turku Science Park**

# National Network of Science Parks

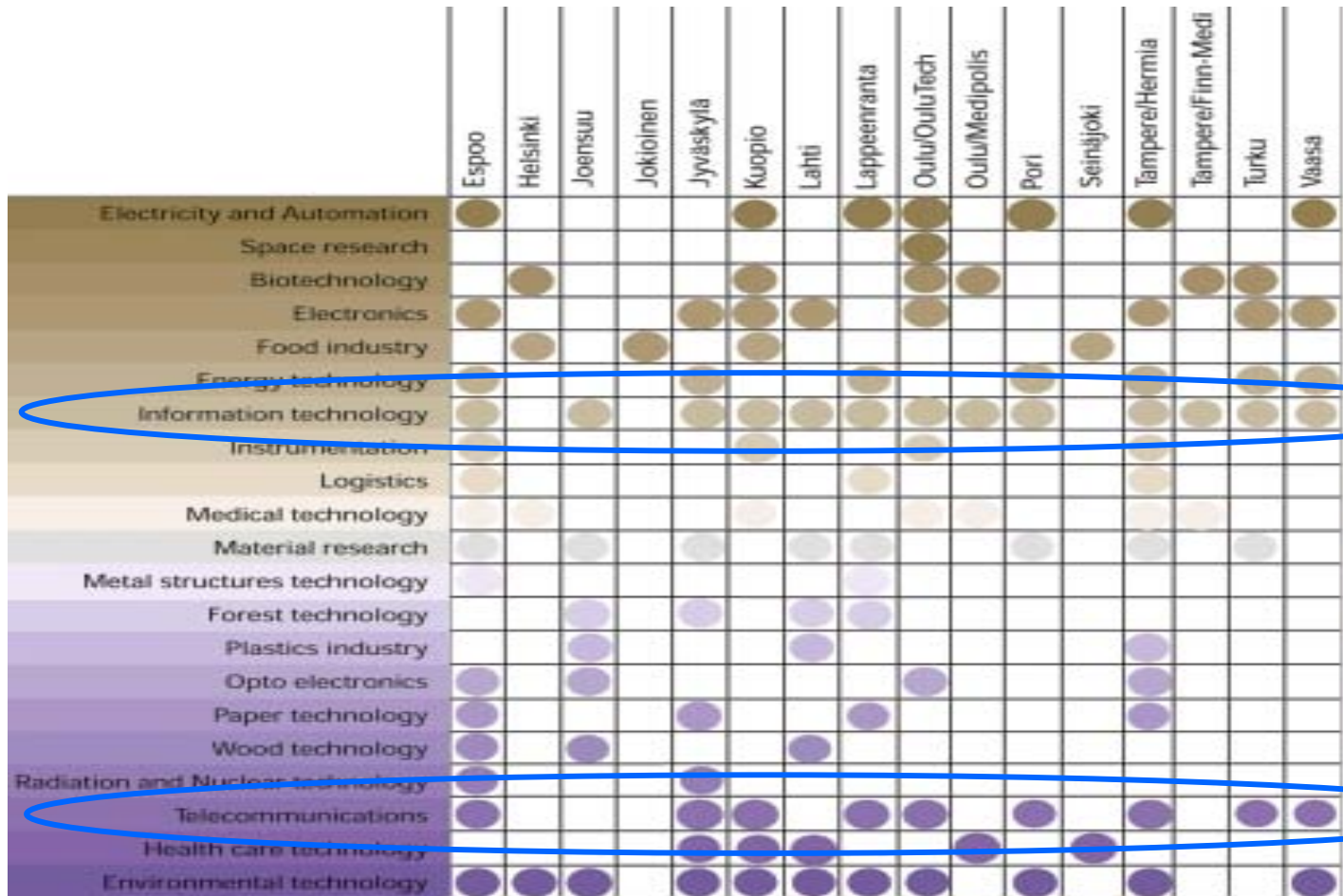


**TECHNOPOLIS**

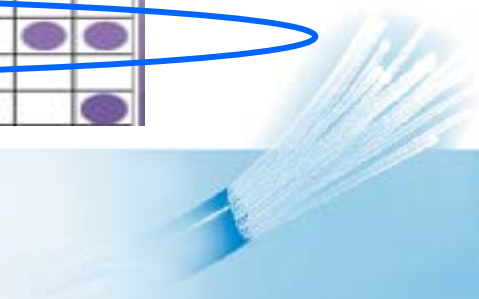


Source: TEKEL 14.1.2004

# ICT cluster is the keystone in the main Finnish science parks



**TECHNOPOLIS**

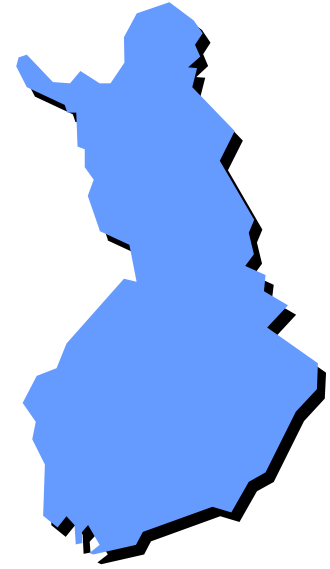


A woman with her hair in a ponytail, wearing a red hoodie, is shown in profile from the side, looking down at a silver mobile phone she is holding with both hands. The background is a bright, cloudy sky. The overall scene is set against a white background that transitions into the sky.


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

EXCELLENCE IN NETWORKED MOBILE SERVICES [WWW.MOBILEFORUM.ORG](http://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  Open Mobile Alliance
- 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

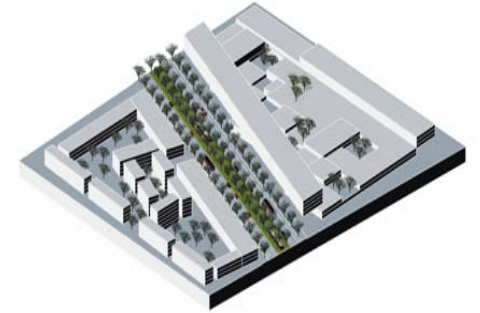
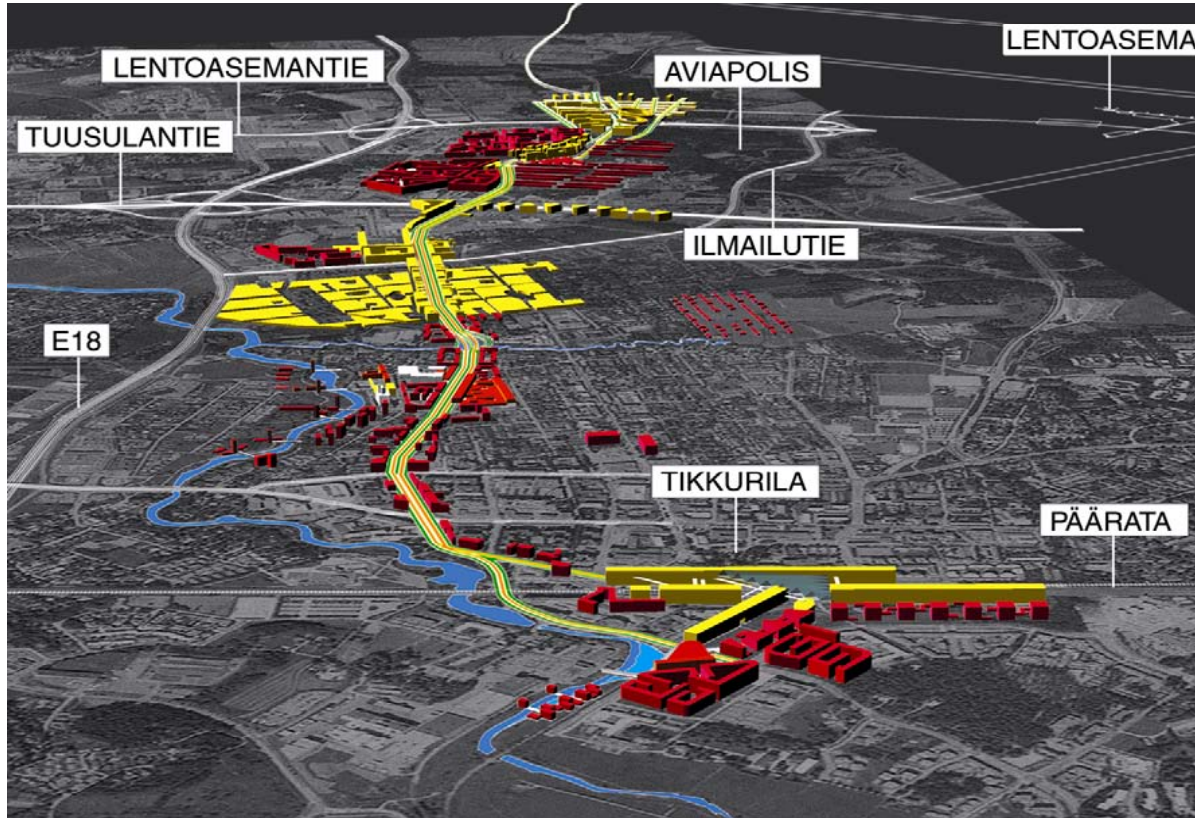


# TECHNOPOLIS





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



# 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 m<sup>2</sup>
- More than 3 000 employees





# Kartanonkoski - part of the plan already realized

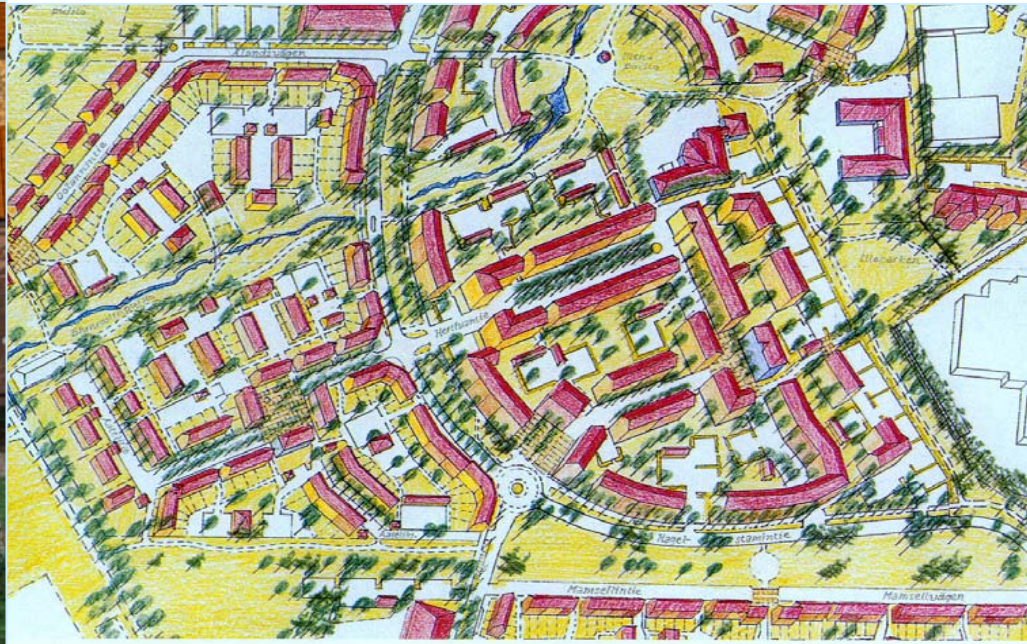


1600 apartments, 3000 people

South of Aviapolis

In the vicinity of central parks and  
Vantaa river

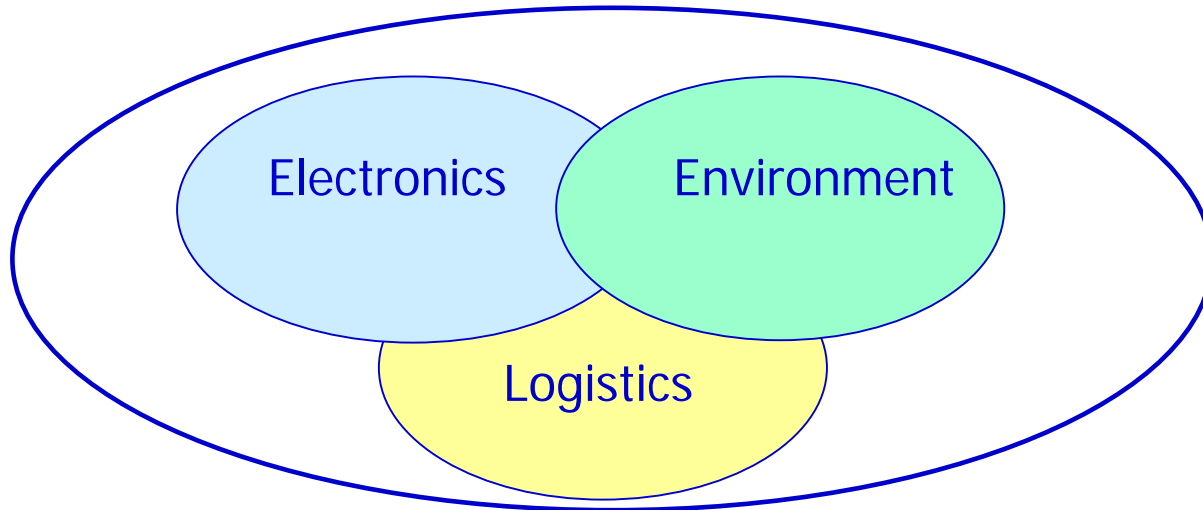
International schools and  
kindergardens located in the area



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



Welfare products and services



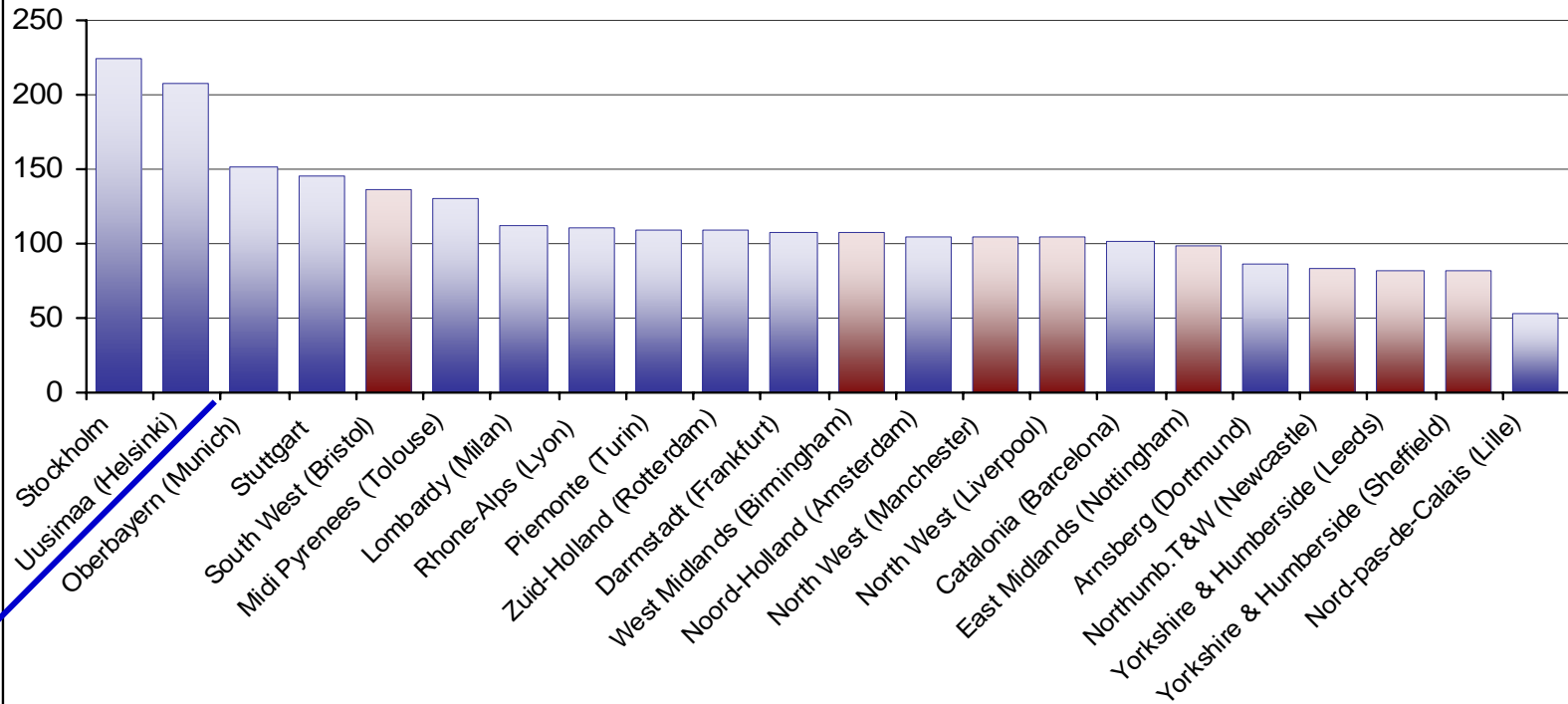
Telecommunication services



**TECHNOPOLIS**

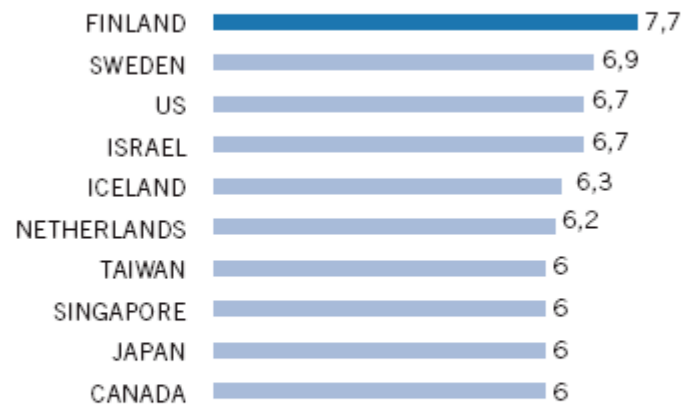


## European Innovation Scoreboard 2002: EU Regions



# Finland functions as a test bench in the ICT sector

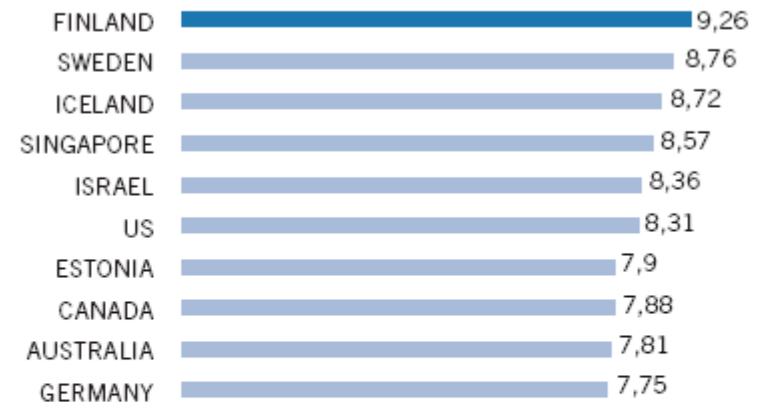
## Technological cooperation



*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



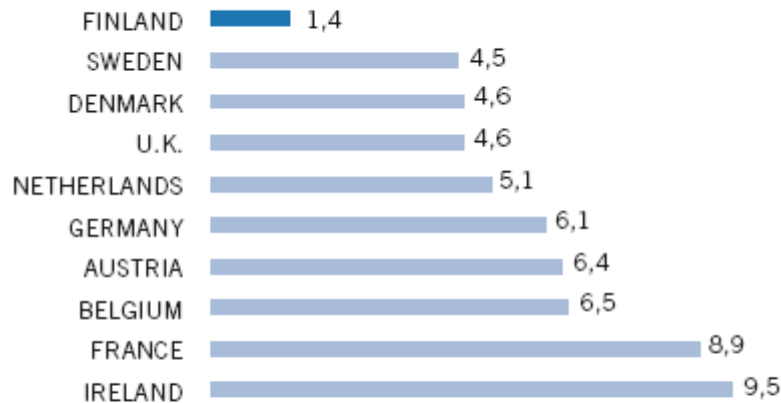
*New information technology and its implementation meet business requirements. The graph shows survey results on a scale from 0 to 10, where 10 is excellent.*

Source: IMD, The World Competitiveness Yearbook 2001



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

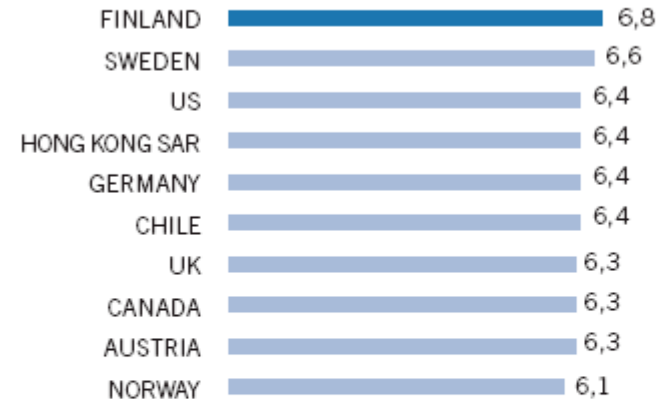
## Most favorable business climate



*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





# Vantaa Hitech Program secures good exertion point for international companies

- Vantaa Hitech Program supports following platform initiatives:

**Octopus** NETWORK

**SoftaTest**  
IMPROVING THE QUALITY

Mobile & Software testing facility

Electronics production pilot plant (Electria)

 Centre of Expertise  
Programme

Centre of expertise in Logistics

Health care & testing centre (Welfare Center)

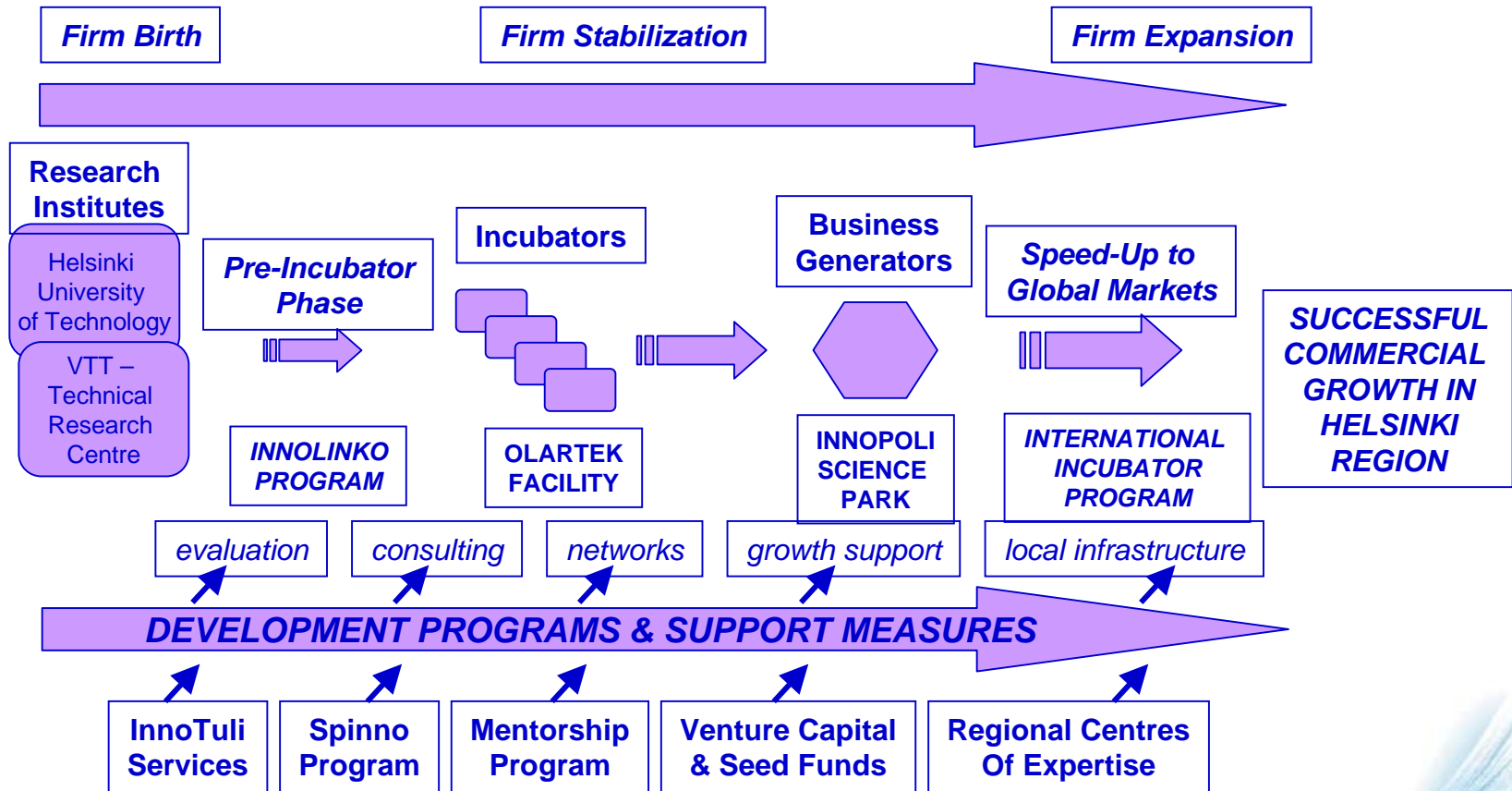
International trade (International Incubator)



**TECHNOPOLIS**



# Helsinki Region Business Creation Park – Staged Incubation Model



# 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



**NOKIA**  
CONNECTING PEOPLE

**FUJITSU**

**tellabs**<sup>®</sup>

TeliaSonera



**TECHNOPOLIS**



# Domo arigatoo Gosaimasu! - Kiitos!



**TECHNOPOLIS**

