

UNIVERSITY OF JYVÄSKYLÄ



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# Open Innovation Environment of Jyväskylä University ICT

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**Open Innovation in Emerging Market**

**The Nokia-Tsinghua Academia Summit**

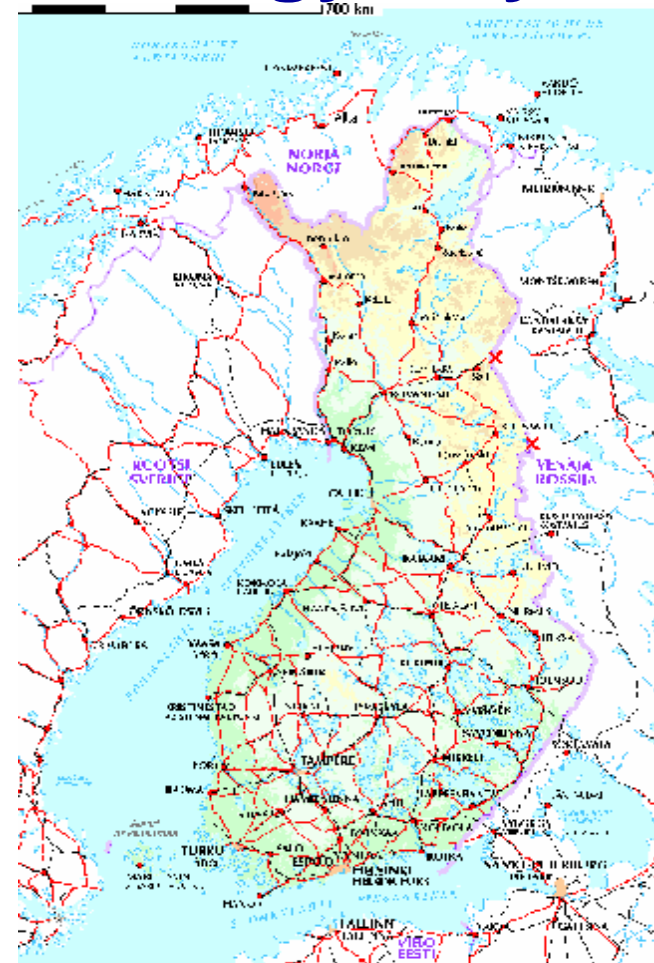
Tsinghua University

Beijing, China

Dec. 18, 2006

# Jyväskylä – "Human Technology City"

- g Jyväskylä region 260 000 inhabitants
- g 150 ICT enterprises
- g Other industry increasingly using ICT
- g The first Faculty of Information Technology in Finland
  - IT Faculty statistics in Finland
    - No. 1 in IS education (40%)
    - No. 2 in CS education (15%)
- g University:
  - the origin of Finnish teachers education in 1863, officially est. in 1934
    - 100+ Ph.D. p.a. in 2006
    - 1300 MSc p.a. in 2006
    - Excellence of Research Units #3 in Finland



## ICT in JYU

- g Human centered IT
  - Extensive academic co-operation + close co-o with
    - industries
    - regional development centre
    - Jyväskylä Science Park
- g The first IT faculty in Finland -98
  - IS Design + Scientific computing expanded with European structural development and social funding
    - MSc programs
      - DataComms
      - Digital Media
      - HCI/Cognitive Science
      - Software Business (engl)
      - Mobile Tech. & Business (engl)
      - Donation: eBusiness
  - Among the first to implement Bologna in 2003 in Europe

## International visibility

- g Academic connections
  - MACSI-net, ECCOMAS (VP Prof. Neittaanmäki)
  - Finnish Society of Computer Science IS SIG
  - *Human Technology: An Interdisciplinary Journal on Humans in ICT Environments*  
<http://www.humantechnology.jyu.fi/>
- g Exchange programs
  - All Finnish universities
  - EU Erasmus exchange program
  - University bi-lateral (SE-Asia Only):
    - IISc Bangalore
    - BUPT, Beijing; XJU, Xian
    - National Chiao Tung University
  - Faculty bi-lateral:
    - FNU, Fuzhou

# 2007- The faculty of Computing Sciences (c.f. ACM, AIS, IEEE-CS)

g Structure (20 professors, staff of 200+)

- Common core in BSc
- MSc and PhD education, research
  - Teacher's education
  - Simulation and optimization (Fields: Mathematics & Computer Science)
  - Mobile Computing (Computer Engineering, Software Engineering)
  - Software Engineering (Computer Science, Software Engineering)
  - Information Systems (Information Systems)
  - Business Information Systems (Information Technology)
  - Cognitive Science
- Services to the society
  - Information Technology Research Institute (applied research)

*Thematic Areas*

*COMAS Graduate School*

*Mobile Technology & Business  
Engl. MSc programme*

*Technology Intensive Business (with School of Economics & Business Adm.)*

# Agora Center

## - multidisciplinary research unit

- g Internationally recognized and networked research center for interdisciplinary, innovative research on human technology and the knowledge society.
- g Combines research of high international standards from a variety of scientific disciplines with the know-how derived from its diverse partner network.
- g Based on a shared vision of developing the future knowledge society from a human-centric point of view. Research topics include everything from everyday family life to contemporary business challenges.
  - Learning Lab.
  - MindTech Lab.
  - Game Lab.
  - User Psychology Lab.
  - Innoroad Lab.
  - Virtual Environment Center

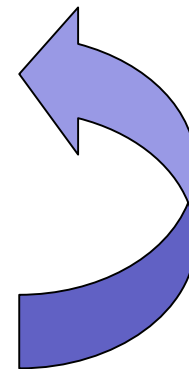
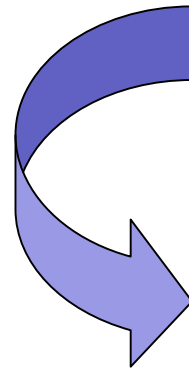
AGORA  
HUMAN TECHNOLOGY CENTER

## The Jyväskylä way

- g Jyväskylä outset: Little medical, engineering, or law
- g We must rely on our special competence:
  - Human centered view on technology
  - Humans as members of techno-economical cultural fabric
  - The Finnish approach
    - Critical creativeness, thinking of the whole, pragmatism & consensus
    - The Nordic values/myths
      - » Fairness, Equality, Honesty, Trust
- g Removing faculty barriers has succeeded
  - Faculty of IT (Mathematical CS + Information Systems)!
  - Agora Center (Multidisciplinary research)

## Two complementary approaches

ICT as a  
developing  
phenomenon



ICT as an  
enabling  
technology  
for various  
fields

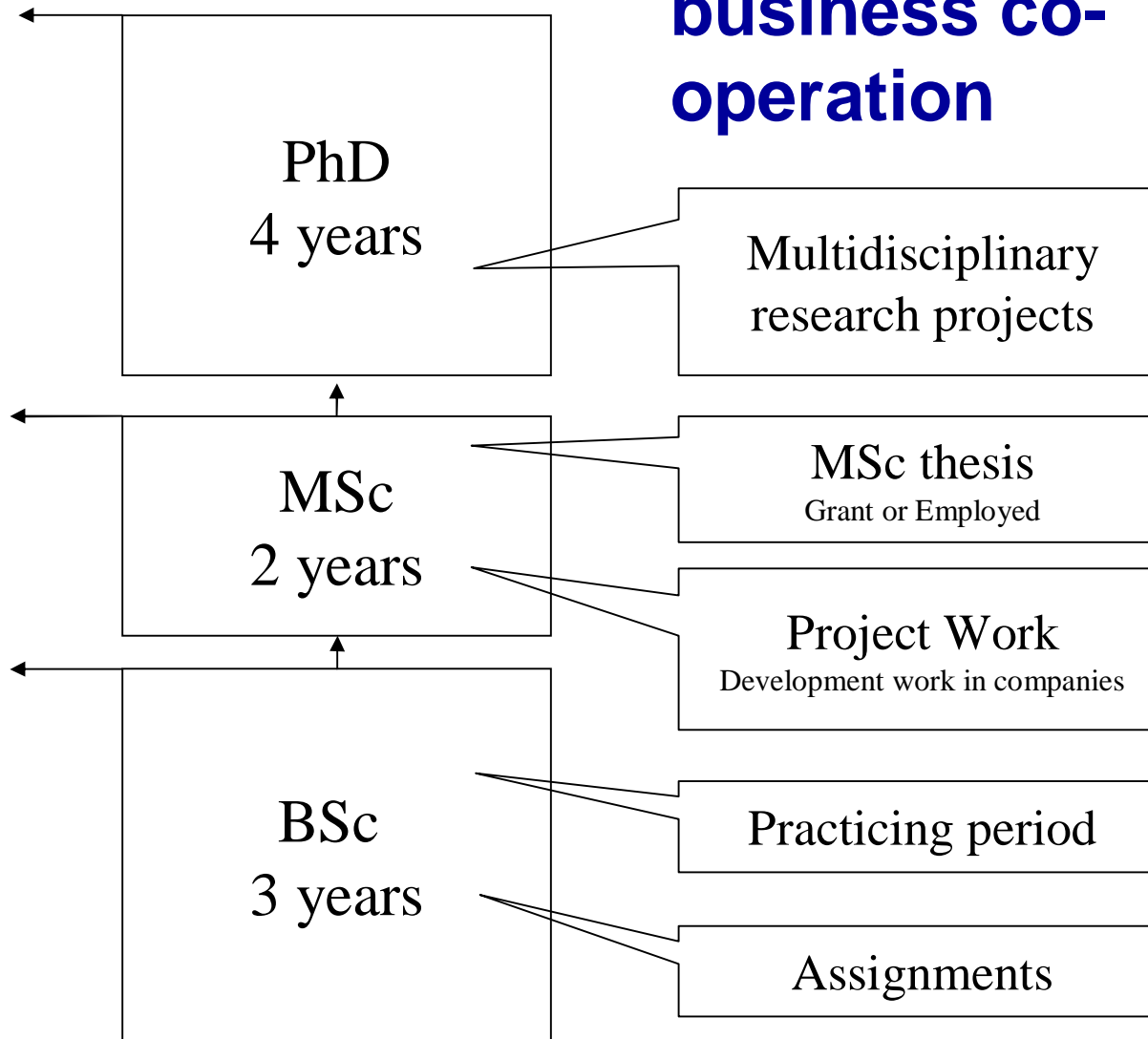
- g This is the opportunity faculty of Jyväskylä University

# Capability enhancement?

## It's all about getting networked

- g Instead of absorbing and assimilating internal competence, build a network of resources
  - More honest on the benefits
    - Attractive win-win-win
  - Economically efficient
    - time devoted to solving problems, not adapting to new organization
  - Some valuable innovators are not team players
  - Most innovators are beyond reach
- g Get networked!
  - And do it with 'maximum sustainable disagreement'

'Exit'



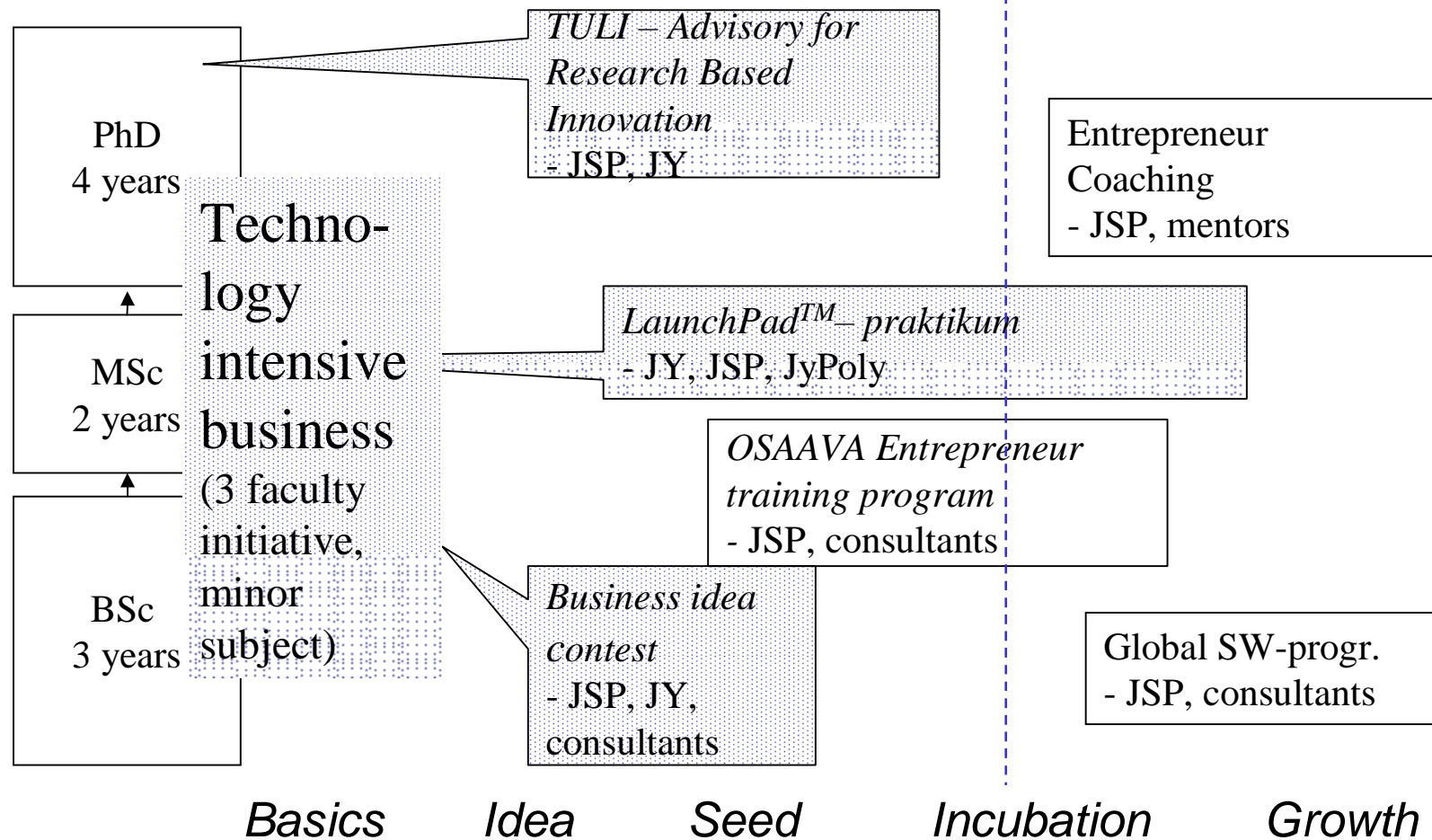
## Typical business co-operation

## In-depth region-business Co-op

Technology Transfer and Applied Research  
*In Information Technology Research Institute*  
(part of the faculty)

- Research projects
- Topical courses
- Network upbuild

# Instead of 'Exit': Taking advantage of regional innovation environment



## **Instead of 'Exit': Taking advantage of *national* innovation environment**

- g Getting to work together
  - National Research Projects
    - Tekes Technology Development Center projects
    - Information Technology Research Institute
  - Infwest
    - National Inter-regional ESF- funding
    - Companies/Universities/Polytechnics co-op in PhD education
  - Company-University –frame agreements
    - On specific themes
  - Thematic forums
    - University-business partnerships

## Instead of 'Exit': Taking advantage of *international* innovation environment

- g Getting to know to work together
  - EU-research projects
    - European companies/universities
  - Company-University thematic co-op
    - Education (3G competence transfer program in Nokia China)  
+ Research (PhD students in NRC Beijing)
  - International Jyväskylä Summer School
  - Universities with complementary resources, but common problems
    - Double degrees
      - Master (12 programmes at JYU, first in ICT in 2007)
      - PhD (FNU trials, XJU thematic initiative with HUT)

## Our aim

- g Attracting students to study and establish ties with local innovators – both ways
  - English MSc programs
    - E.g. Mobile technology & business
  - Accelerating researcher exchange
    - Programs and Double degrees

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