SAIKA PROJECT

INTELLECTUAL CAPITAL AS A SOURCE OF NATIONAL PROSPERITY

Antti Lönnqvist

Department of Business Information Management and Logistics
Tampere University of Technology, Finland

About the project

- Organization
  - Two-year research project funded by Tekes, the Finnish Funding Agency for Technology and Innovation
  - Collaboration by University of Turku / Finland Futures Research Centre (Pirjo Ståhle) and TUT
  - Steering group: Carol Lin, Ahmed Bonfour, Leif Edvinsson, Giovanni Schiuma
- Objectives
  - To study the **impact** of IC on national economic growth in Finland
  - To develop measurement tools

Specific viewpoints at TUT

- What is national IC?
  - Which assets are relevant in the Finnish context?
  - Which ”entities” are measured?
  - What about the intangible outputs / outcomes of a nation?

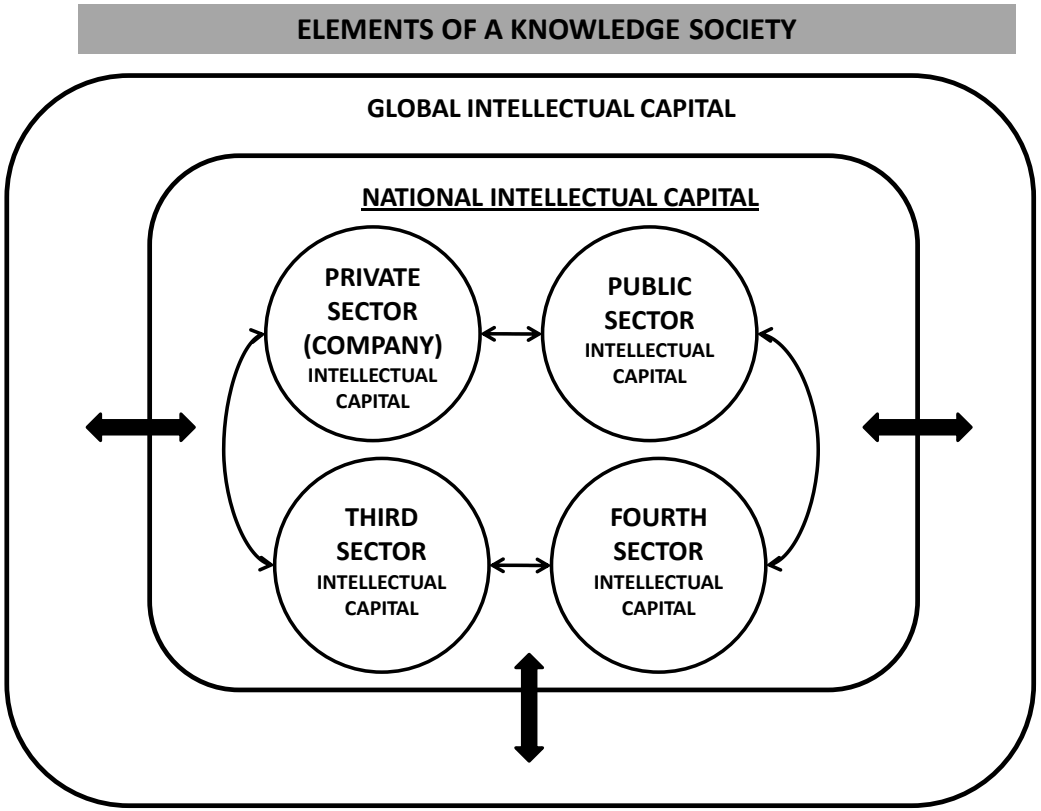
  ➔ implications on what is being measured
- How to measure?
  - Data availability is still a key issue
  - But more importantly: why are we measuring?
    - International benchmarking: why?
    - Analysis of impacts or dynamics
    - National policy-making; e.g. the management of national development strategies

    ➔ Different purposes – different measures
- Who uses the measurement information?
  - We produce a lot of metrics but no one has bothered to ask what the policy-makers need or what information they use already!!

What we have been doing

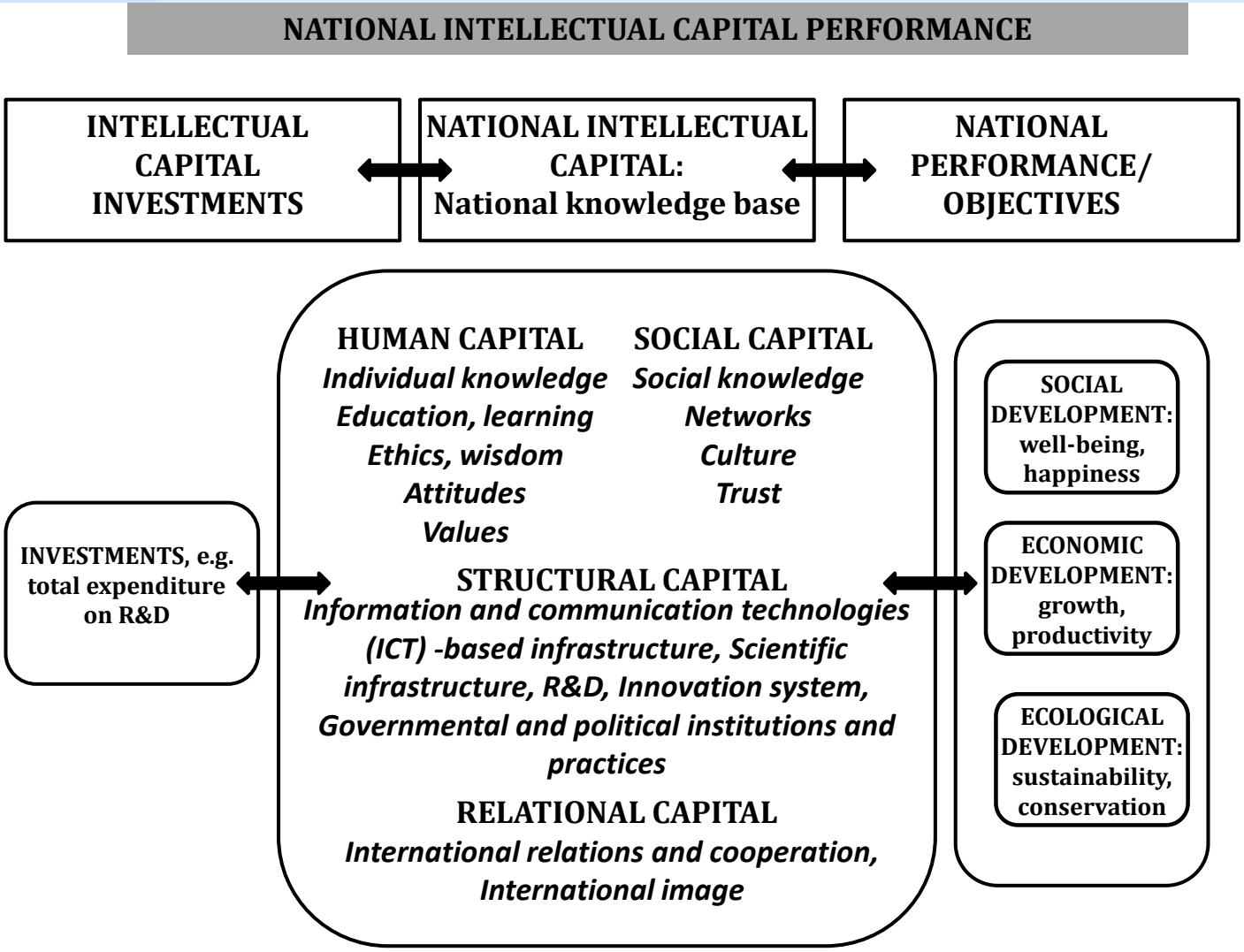
- Review of measurement models
- Clarification of concepts
- Developing a measurement system for the Finnish context
- Work-in-progress…

Where is national IC located?



Käpylä, J., Kujansivu, P. Lönnqvist, A. (2011) Multidimensional Measurement of National Intellectual Capital Performance: Case Finland in 2000–2007, IFKAD, Tampere.

What should we measure?



A draft measurement system

IC INVESTMENTS

	2007	Change from 2006 (%)
Total expenditure on R&D	3,47	-0,12
Business expenditure on R&D	2,51	1,28
Total R&D personnel nationwide per capita	10,63	-3,87
Total public expenditure on education	5,76	-4,16
Pupil-teacher ratio, primary education	15,03	-3,22
Pupil-teacher ratio, secondary education	9,79	-24,08

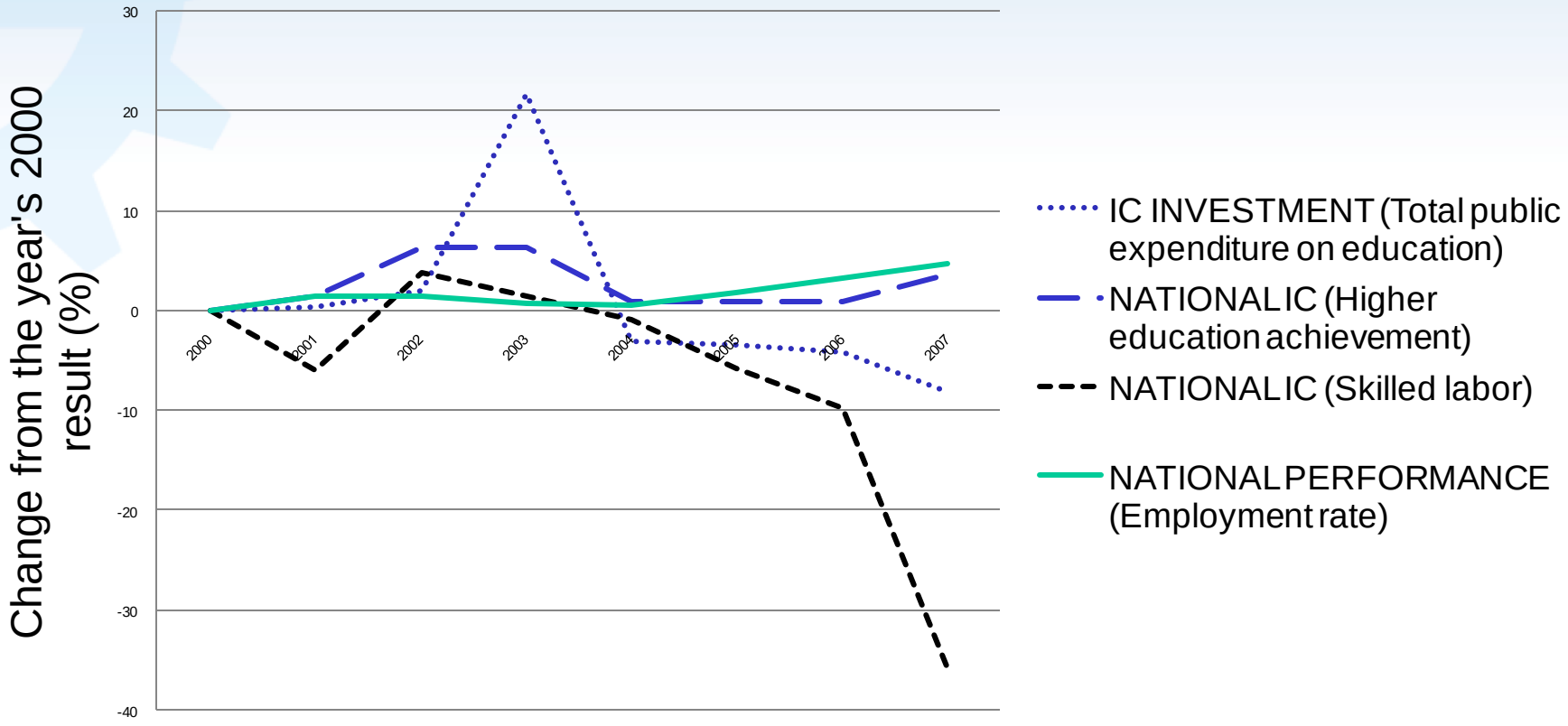
NATIONAL PERFORMANCE

Social development	2007	Change from 2006 (%)
Employment rate	70,3	1,44
Healthy life expectancy	72,60	0,55
Quality of life	8,49	-2,67
Gini coefficient	29,51	2,96
Economic development	**2007**	**Change from 2006 (%)**
GDP (PPP) per capita	35346,19	8,47
Overall productivity (PPP)	75014,47	6,83
Productivity in services (PPP)	75150,90	5,29
Households' adjusted disposable income	115 155	5,88
Ecological development	**2007**	**Change from 2006 (%)**
Ecological footprint	6,16	1,77
Biocapacity	12,46	0,05
Total material Requirement	547,4	-0,78

NATIONAL IC

Human capital	2007	Change from 2006 (%)
Secondary school enrollment	96,84	9,45
Higher education achievement	39,00	2,63
Skilled labor	4,80	-28,91
Flexibility and adaptability	6,37	-5,18
Structural capital	**2007**	**Change from 2006 (%)**
Internet users	746,70	4,68
Computers per capita	787,86	4,55
Scientific articles	4988,60	-1,95
Patent productivity	20,13	-7,49
Value system	6,65	2,33
Transparency	6,00	-23,31
Justice	8,15	-8,52
Relational capital	**2007**	**Change from 2006 (%)**
Exports of goods	36,60	-1,44
Exports of commercial services	9,48	13,21
Image abroad	7,25	-6,61
Relocation threats of R&D facilities	4,58	1,52
Social capital	**2007**	**Change from 2006 (%)**
Social responsibility	6,06	-12,85
Entrepreneurship	5,54	-9,01
Ethical practices	7,14	-12,65
Social cohesion	6,98	-13,16
Knowledge transfer	6,06	-15,86

An example of the results analysis



What next?

- Strenghtening of the conceptual basis
- Further development of the measurement system?
- More data; better analyses of the impacts (How? Any ideas?)
- A study on the information needs of policy-makers?

IFKAD 2011

Tampere, Finland, 15.-17. June 2011