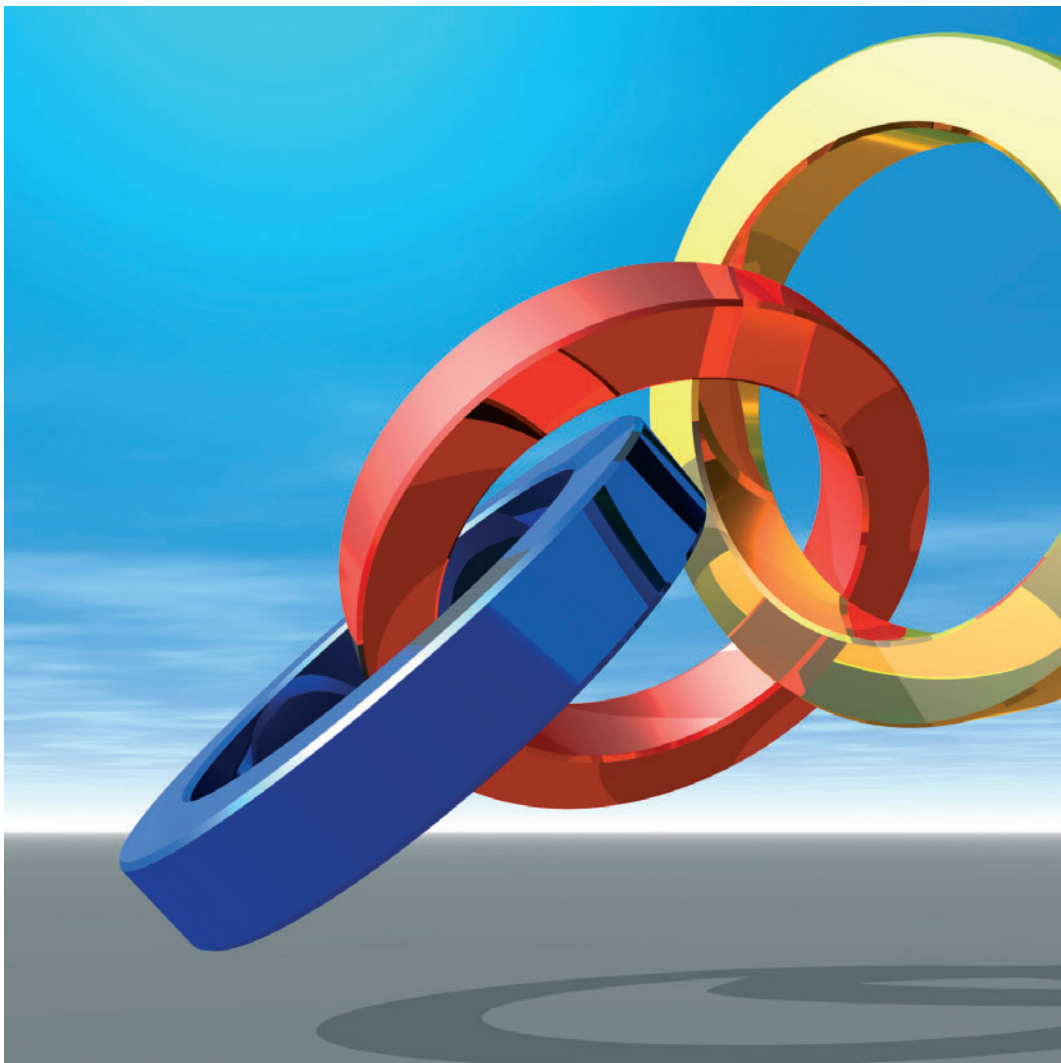


Five Steps for Finland's Future

Pirjo Stähle (ed.)

Technology Review 202/2007



Tekes

Five Steps for Finland's Future

A high-level Round Table initiated by the New Club of Paris
held in Helsinki, November 11th, 2006
with and for Prime Minister Matti Vanhanen

Pirjo Ståhle (ed.)



Technology Review 202/2007
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Introduction

This report is the outcome of the dialogue in the Round Table in Helsinki 14.11.2007. The Round Table was initiated by the New Club of Paris and introduced by it for Prime Minister Matti Vanhanen. The intention was to examine and open up new dimensions for Finnish strategy and innovation discussion with support by foreign high-level contributors. The goal of the Round Table was to consider the role and possibilities of Finland in a knowledge and innovation economy and bring up new dimensions to the national discussion.

The New Club of Paris was founded 2005 as an association of scientists and decision-makers dedicated to research and promotion of the idea of transformation of knowledge society and knowledge economy. After a – still-ongoing – period of concerns about ecological issues and environmental challenges, which are prominently addressed by the “Club of Rome”, the New Club of Paris enters a phase of concerns about available and not yet developed knowledge, education, creativity, and innovation capabilities. In the economic dimension this could be named as the paradigm of a “new economy of the intangibles.” The New Club of Paris addresses decision-makers, specifically in politics, to embark on the new knowledge paradigm and to engage in developing new strategies with the new understanding of the knowledge society and economy.

The Helsinki Round Table consisted of sixteen participants all together. Three of the participants did not attend the whole day dialogue but made an important contribution by shorter visits and presentations: Prime Minister *Matti Vanhanen*, Director *Timo Kekkonen*, Confederation of Finnish Industries, and Program Director *Katriina Harjuhahto-Madetoja*, Prime Minister’s Office.

The contributing members from the New Club of Paris (NCP) were *Jean-Eric Aubert*, Lead Specialist, World Bank Institute, Paris, Professor *Ahmed Bounfour*, University Paris-Sud, Vice President of NCP, Professor *Leif Edvinsson*, Lund University, Sweden, President of NCP (literary contribution), Professor *Guenter Koch*, president of the Austrian Association for research in IT, General Secretary of NCP, *Waltraut Ritter*, VP Knowledge Enterprises, Hong Kong, and Professor *Pirjo Stähle*, Finland Futures Research Centre, Turku School of Economics.

The Finnish experts who participated in the dialogue were *Mikko Kosonen*, Special Advisor, Nokia Group, *Markku Markkula*, Director of Life long Learning Institute Dipoli, Helsinki University of Technology *Ulrica Gabrielsson*, Researcher, Futures Committee of the Parliament, *Martti af Heurlin*, Deputy Director General, The Finnish Funding Agency for Technology and Innovation, Tekes, *Kalevi Olin*, Member of the Parliament, Chair of Tutkas, Member of the Committee for the Future, *Paula Tiihonen*, Committee Counsellor for the Committee for the Future, Parliament, and *Markku Wilenius*, Professor, Finland’s Futures Research Centre, Turku School of Economics.

This report consists of two main parts. The first part “Five Steps for Finland’s Future” presents the main ideas and suggestions based, in short, on the Round Table dialogue. The second part consists of more thorough viewpoints on Finland’s present and future as they are seen by the foreign researchers. The four papers are written by Jean-Eric Aubert, Ahmed Bounfour, Leif Edvinsson and Guenter Koch. The presentations of the authors, the program of the Round Table and the Manifesto of the New Club of Paris are included in the Appendix.

On behalf of The New Club of Paris I want to thank Markus Koskenlinna and The Finnish Funding Agency for Technology and Innovation (Tekes), Pekka Pellinen and The Finnish Association of Graduate Engineers (TEK), Ulrica Gabrielsson and Association of the Parliament Members and Academic Researchers (TUTKAS), without whose financial and practical support The Round Table and this report would not be possible.

Helsinki, January 31st, 2007

Pirjo Ståhle

Professor

Editor of the report and Moderator of the Helsinki Round Table

Summary

The Helsinki roundtable discussion was attended by six members of the new Club of Paris and nine Finnish experts and decision makers. Discussion was based on national strategy documents produced in Finland over the last few years, with the aim of introducing complementary or previously overlooked perspectives to them. The results of the discussion were crystallised in *five themes* that Finland should consider in seeking future success:

1. Inspiring national vision

Renewal is not possible based merely on rational agendas; what is required is a national drive and a common goal. Finland has shown great capability for renewal and survival in serious crisis situations in the past. Now the same power and energy would need to be mobilised in more auspicious circumstances, yet current strategies seem to lack a collective steering and inspiring vision.

2. Making the Finnish success story known internationally

Acquiring distinction in the international arena is becoming increasingly difficult. It can only be accomplished through an authentic national identity and distinctive features. Although Finland possesses many such features, including nature, technology and culture, national strategies ignore the potential of Finnish identity and values, which can nonetheless provide the foundation for Finland's success. Finnish strategy papers focus on describing expertise and its development, which is indeed most important. Finland is a globally interesting success story, but she has to know how to convey this to the world.

3. Focus on sources of innovation

The Finnish national innovation system has received a lot of praise. However, the roots of innovation and entrepreneurship lie deeper in the social fabric and practices than Finnish knowledge and innovation strategies seem to understand. The foundation for innovation and entrepreneurial spirit is instilled in individuals at a very early stage, and schools are consequently a crucial factor in this development. Another crucial aspect is management in all organisations, because it is the facilitating factor that allows individual creativity, innovation and entrepreneurial inspiration to develop into a national economic and social resource. These roots should be incorporated into the Finnish national innovation system.

4. Enhancing social skills in the global arena

Informal networks and network institutions are wielding increasingly more power today, and the trend towards this so-called *soft power* will become progressively stronger in the future. This implies a great potential for Finland, as being a small and homogeneous country she has the versatility to assimilate change rapidly. Social capital is strong in Finland, which is in the top class in terms of interpersonal trust and lack of corruption in the world. On the other hand, being a relatively new actor on the international scene, Finland's relation capital in the international flows of knowledge, finance and consumption is not very developed. Success in the contemporary network economy is increasingly dependent on communication. The Finnish identity and culture are very much based on things other than communication, the development of which presents a significant challenge for Finland in the playing fields of the world economy.

5. Finland, future pioneer in ecology

Finland has a unique time window for assuming the role of pioneer in the application of ecological technology and practices. Finland has the potential to become a worldwide brand as a laboratory in this field. Finland has been a pioneer in technology and a laboratory of the information society, attracting a great deal of interest across the world. Now is the time to re-create that phenomenon in a new area, one on which the attention of the whole world is focusing today. Finland would be particularly appropriate for this role, because both the awareness of environmental issues and the quality of environmental technology are particularly high in Finland.

Viisi askelta Suomen tulevaisuuteen

Tämä raportti on tulos pyöreän pöydän keskustelusta Helsingissä 14.11.2006. Kokous pidettiin THE NEW CLUB OF PARISin aloitteesta, ja siihen osallistui pääministeri Matti Vanhasen ohella viisitoista suomalaista ja kansainvälistä asiantuntijaa. Tavoitteena oli keskustella Suomen mahdollisuuksista globaalissa tieto- ja innovaatiotaloudessa sekä tuoda ulkomaisten tutkijoiden avustuksella uusia ulottuvuuksia kansalliseen keskusteluun.

THE NEW CLUB OF PARIS perustettiin vuonna 2005 tutkijoiden ja poliittisten päätöksentekijöiden foorumiksi, joka keskittyy tietoyhteiskuntakehityksen ja tietotalouden tukemiseen. Rooman klubin tapaan Uusi Pariisin klubi on perustettu yhteiskunnalliseksi keskustelijaksi, mutta ympäristöasioiden sijaan se nostaa esiin tiedon, luovuuden ja innovaatioiden merkitystä ja roolia globaalien talouden kehityksessä. Klubin tarkoitus on tuoda esiin tieto- ja innovaatiotalouden erityispiirteitä sekä auttaa hallituksia ja poliittisia päättäjiä kehittämään tietoyhteiskuntaa tukevia kansallisia strategioita.

Helsingin pyöreän pöydän kokoukseen osallistui kuusi Uuden Pariisin klubin jäsentä ja yhdeksän suomalaista asiantuntijaa ja päättäjää. Keskustelu perustui kansallisiin strategiadokumentteihin, joita Suomessa on tuotettu viime vuosien aikana, ja tavoitteena oli tuoda niihin täydentäviä tai aiemmin varjoon jääneitä näkökulmia.

Pyöreän pöydän tulokset kiteytyivät *viideksi teemaksi*, jotka Suomen tulisi huomioida luodessaan itselleen tulevaisuuden menestystä:

1. Kansallinen visio fokukseen

Uudistuminen ei synny pelkästään rationaalisten tehtävälisöjen perusteella, vaan siihen tarvitaan kansallista innostusta ja yhteistä päämäärää. Suomi on osoittanut suurta uudistumiskykyä ja selviämistä isoissa kriiseissä. Nyt sama voima ja energia pitäisi syntyä hyvinä aikoina, mutta Suomen nykyisistä strategioista näyttää puuttuvan toimintaa ohjaava ja ihmisiä innostava yhteinen visio.

2. Suomen menestystarina maailmalle

Kansainvälinen erottuminen on yhä vaikeampaa, ja se voi tapahtua vain aidon kansallisen identiteetin kautta ja omaileimaisten piirteiden kautta. Suomella on tällaisia piirteitä runsaasti – esimerkiksi luonto, teknologia ja kulttuuri – mutta kansallisen strategian tasolla tarkastelusta on unohdettu kokonaan suomalaisen identiteetin ja arvojen osuus, jotka saattavat kuitenkin olla Suomen menestyksen kivijal-

ka. Suomalaiset keskittyvät paljon osaamisen ja sen kehittämisen kuvaamiseen strategioissaan, mikä onkin tärkeä asia. Varjoon on kuitenkin jäänyt se, että Suomi on globaalisti kiinnostava menestystarina, joka pitäisi osata kertoa maailmalle.

3. Innovatiivisuuden lähteet huomion kohteeksi

Suomen kansallinen innovaatiojärjestelmä on saanut paljon kiitosta. Innovaation ja yrittäjyyden juuret ovat kuitenkin syvemmillä sosiaalisissa rakenteissa ja käytännöissä kuin Suomessa tieto- ja innovaatiostrategioiden perusteella ymmärretään. Innovatiivisuuden ja yrittäjähenkisyyden perusta luodaan yksilöille jo varhaisessa vaiheessa, ja siksi kouluilla on tässä kehityksessä tärkeä rooli. Suuri merkitys on myös kaikkien organisaatioiden johtamisella, jonka kautta yksilöiden luovuus, innovatiivisuus ja yrittäjyys on mahdollisuus kehittää taloudellisen ja yhteiskunnallisen toiminnan voimavaraksi. Nämä juuret tulisikin liittää osaksi suomalaista innovaatiojärjestelmää.

4. Sosiaaliset taidot toimimaan globaalilla pelikentällä

Nykymaailmassa epäviralliset verkostot ja verkostomaiset instituutiot käyttävät yhä enemmän valtaa, ja tämä ns. pehmeän vallan trendi vahvistuu edelleen. Tämä tuo Suomelle uusia mahdollisuuksia, koska pienenä homogeenisena maana se on ketterä omaksumaan muutoksia nopeasti. Sosiaalinen pääoma Suomen sisällä on vahva, mm. luottamus toisiin ihmisiin ja korruption vähäisyys ovat maailman huippuluokkaa. Toisaalta suhteellisen uutena kansainvälisenä toimijana Suomen suhdetähti kansainvälisissä tieto-, rahoitus- ja kulutusvirroissa ei vielä ole kovin vahva. Nykyisessä verkostotaloudessa menestys perustuu yhä enemmän kommunikaatioon. Tämä on Suomelle erityinen haaste, koska suomalainen identiteetti ja kulttuuri perustuvat paljon muihin seikkoihin kuin kommunikaatioon.

5. Suomi ympäristöasioiden edelläkävijänä

Suomella on ainutlaatuinen aikaikkuna ottaa pioneerirolli ympäristöystävällisen teknologian ja käytäntöjen soveltajana ja viejänä. Tässä on mahdollisuus luoda Suomesta maailmanlaajuinen brändi alan laboratoriona. Suomi on ollut teknologian edelläkävijä ja tietoyhteiskunnan laboratorio, joka on herättänyt maailmalla suunnattomasti kiinnostusta. Nyt olisi aika luoda sama ilmiö uudelleen toisella alueella, johon koko maailma juuri nyt on keskittänyt huomionsa. Suomi olisi tähän rooliin erityisen hyvä, koska sekä tietoisuus ympäristöasioista että ympäristöteknologinen taso ovat Suomessa korkealla tasolla.

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1 Five Steps for Finland's Future

The Round Table of the New Club of Paris was held Nov 14th 2006 with Finland's Prime Minister Matti Vanhanen and fourteen other international and Finnish members. Some of them participated in the whole day dialogue, and some contributed by presentations. In addition to the presentations the dialogue was based on the strategy work and documents produced within the last few years in Finland. The goal was to complement the previous strategy work and possibly bring up new dimensions. The Round Table concluded with five suggestions for Finland's future. The suggestions are not in the form of the traditional to-do-lists, but rather focus on the need to work on Finland's identity and social intelligence as source of future development.

1. Visualize a Big Dream

Issue: Renewal is connected with emotional drive and engagement.

Finland's Strength: Finland has shown powerful drive in crisis situations.

Finland's Challenge: National strategies lack the vision with emotional power.

2. Tell the Story of Finland

Issue: Self-image is the bases in fight for recognition in global community.

Finland's Strength: The distinguished cultural elements of Finland are strong; nature, technology and culture.

Finland's Challenge: Self-analyses in Finland have only been on the level of competence, and excluded the analyses of identity and values.

3. Embed the objectives of innovative attitude and praxis in the society

Issue: The roots of innovation are embedded in social practises.

Finland's Strength: Strong bases in technology innovation and innovation systems.

Finland's Challenge: Too little entrepreneurial spirit.

4. Develop social intelligence at global level

Issue: Informal networks and network like institutions are taking power.

Finland's Strength: Finland is a small country with high agility.

Finland's Challenge: Too narrow communication culture, too much consensus.

5. Take a role of an environmental forerunner

Issue: The pioneer lead in environmental questions is a big possibility in global scale.

Finland's Strength: Environmental awareness and technology are high.

Finland's Challenge: Risk taking capability.

For each of the five suggestion clusters sketched out above, high level working groups could be established to design more specific policy actions and implement the general ideas and the formulated principles. Such groups should be constituted from representatives from the government sector, the business world and the civic society.

1 Visualizing a Big Dream

Emotional drive

Renewal has been one of the key issues in national strategies of Finland during the past few years.

In many strategy sessions the need for innovation as well as a capability for continuous renewal has been identified as the key antecedents for competitive advantage in the global economy. However, not as much has been discussed about the emergence and antecedents of renewal capability. Where does it come from? How can it be created? What are the drivers? These questions have not been tracked explicitly in the various national strategies that emphasise the importance of national renewal capability.

Renewal is always based on people, their knowledge, learning ability and motivation. Technology as well as societal structures has an integral role in the renewal process though they are seldom the key drivers. In renewal we generally deal with various dimensions – emotional, cognitive, organisational, and political – but the order of appearance and importance goes from the emotional to the cognitive.

Culture and emotion are *key drivers for change*. Whatever knowledge or interest we have, changes are only made by emotional engagement. Too rational an approach on renewal does not end up as renewal, because renewal requires energy, and energy is based on emotion. Emotional passion emerges often from a sense of survival (crisis), but it can also emerge by viewing new opportunities – whether these are technological, economical or otherwise.

Beyond survival

There is a need for strong emotional drive to make a move forward! Currently the Finnish strategies lack this kind of vision with its embedded emotional power. The perspective of the current strategy work is obviously too rational with long to-do lists without the power to create commitment and enthusiasm.

In the major crises that Finland has endured, the driver for change has always been survival, as in the wars and the early 90's depression. The lack of emotional recognition and its influential power are obvious in Finland, which prevents Finns to recognize the full potential of their possibilities. Emotional recognition is especially important in a society of innovation, where self-organization, tacit knowledge and soft power are paramount.

In the current situation of high success in Finland, survival is obviously not the impetus any more. Thus other drivers with emotional effect need to be identified. The question is how to broaden the scale of emotional recognition and exploitation. Instead of survival the driver for change could be a powerful vision, or the Big Dream of Finland. If people do not love the idea, it is futile to publish new strategies.

The new strategy with cultural and emotional dimensions should be simple; a couple of words that people can immediately and emotionally relate to. This is currently missing.

2 Developing Self-image

Problem of recognition is of major importance in today's societies in the global world. There is a struggle for recognition. Every nation in the global world needs to present itself freshly, ambitiously, and continuously.

The story of Finland

Finland is recognised as one of the world's most competitive economies with high standard of living and well being. Finland is a success story which is attractive to the world, but this is not enough. This story must also be told to the world in an interesting and explicit manner.

The story of Finland must reflect both the history and the future. This would be important not only for other nations but the Finns themselves. The story tells how Finland as a small country survives in the global world; and crystallizes the Finnish mind-set and self-belief. Finns must ask themselves: What is it about ourselves that we believe, strong enough to carry on to the future? How can we inspire ourselves and the world?

Self-image and identity based on values

The self-analysis in the Finnish strategy work has taken place only on the level of competence, not on the deeper level of identity or values. In Finland there is a clear need for creating a process of self identification starting with genuine values, leading to the new national self-image, and ending up to goal-oriented branding of Finland.

What are the basic values that make Finland different from other nations? Values are the basic framework for action that includes a twofold challenge for Finland. First, Finns need to recognize their own specific national values, and second, they must learn to better recognize the values of the other nations. The new arenas for global possibilities cannot be recognized and found without the recognition of these value frames. The posture of Finland as a "cultural island", key to her success, needs to be recognized, better understood and further exploited.

Branding Finland

Currently the conscious branding of Finland is not made by any agency. The corner stones of the Finnish brand could be, for example, Nature, Technology, and Culture (e.g. Finnish design). These are presently identified clearly enough. The existing strengths are the ones that can and must be improved.

Besides branding, Finland needs to project its image outside, in order to be recognised by other nations and citizens in the world. Projection of the country's image is clearly related to how the new path for development will be defined.

3 Consolidating Roots of Innovation

The roots of innovation go deep in culture, education and society. Also technology can act as a major stimulus for innovation, as it has in Finland. However, beside technological innovation, maintaining a competitive edge in the future challenges Finland to more conscientiously nurture other sources of innovation.

Pedagogy of innovation

Finland must invest in innovativeness and creativity throughout its educational system. The excellent results in PISA show that Finland has an extraordinary good educational ground. These results also show that Finland has the best *average level* of literacy or mathematical praxis of the school children in the world. But along with the lack of low level performance also the *top-level performance is miss-*

ing. From the perspective of innovation this is not a positive development. As the country has only 5,3 million inhabitants (about the population of Hong Kong), in the global innovation economy it needs more than an excellent average. There is a clear need for development of Pedagogy of Innovation in Finland. The new pedagogical approach could realistically be created, implemented and even commercialized in Finland, to be exported to other countries in the flow of the pedagogical fame Finland has gained by PISA.

A Social Innovation Laboratory

Finland, like other countries, is experiencing dramatic growth in its cities, which will necessitate *innovative social systems* both for the needs of urban citizens. In addition, research indicates that senior citizens might have a unique potential for innovation instead of becoming a social burden. If the seniors are connected with younger generations, more creative and innovative solutions emerge. A special pioneering *Lab for Social Innovations* introduced as the very first in the World might be initiated, for domestic purpose in Finland but later on also for export purpose of New Social Capital Solutions. It could be linked, for example, to emerging modern technologies such as robotics, which are anticipated to be instrumental in delivering innovative new social services. Educational arrangements could become available from the ongoing EU project on Future Centres with among others participants from the Ministry of Social Affairs, and Ministry of Taxation in Holland, but also Ministry of Economics in Denmark. Management and leadership innovation would need to be included as well.

Management and leadership innovation

Most of the innovation activities in the world are targeted at the area of products and production. As little as one percent is addressed to innovations in management. In Finland – as well in the other countries – there is a need for radical renewal of management and leadership methods. These would be able to meet the challenges of a global economy and fully benefit from the (still latent) innovation capacity of the Finnish society and economy. Management innovation ought to become an intentional deliberation, a cross-field research mission, and most importantly, an experimental methodology rehearsed in collaboration with practice-oriented academics and forward-looking managers.

Management focus should move beyond a single product or technology innovation and invite the examination of sustainable roots of creativity. Novel management methods will be needed to provide a systemic source of competitive advantage for Finnish companies, embedded in pioneering management insights and techniques. Today in Finland such management/leadership know-how and re-

lated research are too dispersed, lacking critical mass and cross-industry or cross-disciplinary learning. There is an urgent need for a boundary-breaking and newly-integrating rethinking the Finnish research system that would: a) focus on management/leadership innovation as its core agenda; b) bring together imaginative and capable researchers and practitioners from different fields and backgrounds, c) develop a set of experimental methodologies that facilitate such cross-boundary innovation.

Deep ground of entrepreneurship

Finland lacks small and middle sized enterprises, especially those which aim at growth. The larger problem is the lack of entrepreneurial spirit. This characteristic of the Finnish culture and mentality is deep rooted, and has its source in national mental models and values. Finnish people are creative, they have lots of ideas and high interest in technology, but their inclination for social visibility and risk taking is low. These disadvantages should be recognized more clearly as major obstacles for both entrepreneurship and innovation, and must be prioritised as educational objectives. Entrepreneurship should be encouraged on all levels of individual, academic and political life.

4 Building Social Intelligence at Global Level

Finland scores very high in the rankings for global competitiveness, but it might still be improved upon, especially *a task force for social intelligence*, with a focus on our social values creating and sustaining our educational systems. Social intelligence is essential for recognition of future possibilities, and therefore must be developed. The opposite of social intelligence is *social ignorance*, e.g. not knowing about future social threats or opportunities. This viewpoint on competitive advantage points out the importance of relational capital.

Relational capital

Since Finland from the global and international perspective is a rather new player, its relational capital is still quite vague. Relational capital (RC) is created by connections, communications, trade and networks. RC is something that comes from others: trust, image and perceptions of other people. This kind of capital can be internal or external; it is based both on national relationships as well as those with the external world. In terms of internal RC Finland has a good base in the form of high trust, low corruption and high consensus in the society. But on the other hand, in terms of external RC, access to the global flows of knowledge, finance and trade is still too weak.

Being more communicative

In the current networked world communications tend to be the root for any kind of success. This is a challenge for Finns, because Finnish identity is largely built on non-communicative elements. Lack of the city culture which builds on communicative abilities is also of importance. The situation in Finland has partly been improved by skilful and passionate implementation of information and communication technology. However, interpersonal communication with the associated emotional dimension of bonding with people seems still to be a national challenge. The situation is also linked with cultural competence, e.g. the challenges of how to read the signs in the environment, how to analyse them, being able to read different cultures; as well as to build creative organisational cultures. Based on this kind of communicative confidence the ability to use and benefit from contradictions would also increase. The communicative mode of consensus is obviously too high in Finland, and thus also inhibits innovation.

Soft power

The sources and forms of power are under transformation in the global world. The traditional forms of military and economical power are challenged by different forms of soft power, e.g. power of networks and other distributed forces. To the contrary for unipolar military power (USA) and multipolar economic power (USA, Asia, Europe), soft power is distributed and multifaceted including media, governmental cooperation, NGOs, terrorist networks etc. These networks of people are self-organising around a variety of social and economic interests, and their power can be accumulated even in a short time. The traditional institutions (church, political institutions, associations etc.) are challenged because the power is created within these new networks. Soft power and informal networks – also within the formal institutions, organizations and companies – are taking power positions in the future. The success in these soft power networks is for the most based on self-organization and free interest of people. This is a huge challenge for leadership and management, and demands both new insight and methodologies for successful business, politics and culture. Finland is a small country with high level of agility: could it have a bigger role of benefiting or creating self-organized power?

Soft power should also be understood as a way to attract people and influence them by one's own values. Finland has a lot to bring from this viewpoint to the world as shown by her record as peace broker in numerous conflicts in past decades. It also operated as efficient bridge between the East and the West in past decades and there is still much to do in the future for mitigating tensions, facilitating technology transfer, improving human rights, helping in energy use and resource management, etc. It should continue to pursue these policies with imagination and boldness, looking for increased impact.

5 Becoming an Environmental Forerunner

Finland as a society has been a forerunner of information and communication technology. As a small, homogeneous country with highly educated people it has acted as a certain kind of a "laboratory" to the rest of the world. Finland has also been a forerunner in producing these technologies, most successfully bringing mobile phones to the world. The latest national strategies in Finland concentrate mostly on branches of business or know-how when dealing with national competitive edge. However, Finland's potential as a nation to act as a forerunner has been in eclipse.

The environmental challenge

For example climate change is reality and a big concern for the whole world. We need information about and solutions for various problems that societies will be challenged by the environmental changes that will occur in the near future. At the moment there is no single country that is setting an example for the world in addressing issues of global warming and environmental protection. Finland could take the lead as a country of survival with a message that no country could ignore. However, this role of a forerunner would need to be undertaken with the same resolve as Finland once decided to develop an information society – and turned it into an unbelievable success story.

Perspective of giving

All the national strategies – as well the individual or business based – are more powerful when they do not only deal with their own survival but also that of others for collective sustainability. Doing something for our collective success has an enormous energising power. The Finnish national strategies lack this perspective, and because of that they also lack the energising influence and visionary power. The rational analyses and to-do lists – even though their role is important too – are not able to create national enthusiasm and joint effort with courage for risk taking.

Finland's potential to be a forerunner as a nation should be considered in detail. This role is on one hand based on the resources and practices the country already has, and on the other hand on the demand and interest there is in the outside world. One of the realistic and possible forerunner roles for Finland could be that of environmental leadership – based both on the Finnish know how and the world wide interest.

Jan 12th 2007 in Helsinki, Hong Kong, Paris,
Stockholm, Vienna

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2 The Future of Finland – Some Questions and Proposals

Jean-Eric Aubert, World Bank Institute

The Challenges

Finland appears today as a success story: it is generally recognized as a highly competitive economy¹, also enjoying very high social welfare within a highly praised democratic society.

With such achievements there are two major issues:

- How can the Finnish model be sustained and adapted? There are some concerns about its long term sustainability ...
- How can Finland project its model on the world? The world will need such a model at a time of dramatic evolutions: climate change, possible global economic crisis, clash of civilizations....

Firstly let us briefly evoke the factors explaining the success of Finland.

Factors of Success

An increasing number of studies seek to understand and explain the secrets of Finland's success story². Let's try to summarize what seem to be, in our view, the key drivers behind it.

The first and foremost driver of success has been, without doubt, the peculiar historical and geographical circumstances in Finland since World War II. Initially, it has had to demonstrate a capacity of survival at the time of the Cold War, being at the intersection of the two worlds in confrontation. It did so by developing large and diversified trade relationship with the Soviet Union and facilitating access to the Western technology for the latter. When the Soviet system disintegrated in the early nineties, Finland experienced a severe economic crisis, with huge unemployment. The need to recover from such a shock led to a collective mobilization energizing creativity, innovation, and entrepreneurship.

A second important factor of success relates to the island posture. At a time of accelerated globalization with increased competition at the world level, an island posture in geographic, and even more importantly in cultural terms seem to provide a certain economic advantage as illustrated by numerous examples — Ireland, Taiwan, Singapore, Korea, Israel, among others — supported by recent econometric research³. Being an “Island” (open and under pressure) boosts economic growth. This is probably due to a mental posture founded on a peculiar sense of identity allowing a better mobilization of human resources and a better use of external inputs. As demonstrated in business management, at the firm level, when you have a clear sense of identity, you tend to interact more efficiently within the enterprise and with the outside world (competitors, suppliers, clients). Within the enterprise there are common goals and values on which mental energies and competences are focused, and this is the engine of innovation, growth and success. The same applies to a nation as a human entity. Finland — a “cultural island” in many respects⁴ (certainly from a language viewpoint) — has enjoyed the advantages of such a posture.

A third factor to highlight is the very high quality of the educational system, as shown by international surveys (OECD), that demonstrate not only excellent results in abstract knowledge acquired by students but also remarkable achievements in functional literacy in the adult population. A highly pragmatic and concrete education contributes to make the whole society very technology friendly and this is a decisive factor for innovative performance.

A fourth element is the highly communalized nature of Finnish society. This is manifested in many walks of the political and economic life: the search of consensus in decision processes, the sense of the importance of investments in public goods, the modes of business management, the cooperation between university and industry (the highest in Europe), etc.

1 See for instance the rankings established by the World Economic Forum and other global benchmarking exercises.

2 See for instance the recent World Bank publication (prepared with ETLA): Finland as Knowledge Economy: Elements of Success and Lessons Learnt, Washington, 2006.

3 Aubert and Chen, World Bank Policy Research Paper, Forthcoming.

4 See Finland, Cultural Lone Wolf, by Richard D. Lewis

All the above mentioned factors have given to Finland a remarkable capability of rapid adaptation when facing difficult situations or meeting interesting opportunities to exploit.

Illustrative of the Finnish innovative and adaptive performance is Nokia, which in a few years became the world leader in mobile phones. Nokia contributed in 2003 to 3,7 percent of Finland's GDP, 20 percent of exports, and 25 percent of the national R&D effort. In a sense the Nokia story has something incidental and occasional, as it was the main source of the ICT-growth process of the economy. At the same time it is fundamentally rooted in the strengths of the Finnish culture. Other illustrative – although less well-known – examples could be quoted in the same vein, such as Fiskars, the scissor maker, with the largest single world market share.

Sources of Concern

There are, however, questions on the ability of the country to sustain the innovation and growth pace⁵. Main sources of concerns include:

- A relative isolation from the outside world, as exemplified by the low rate of FDI (in per cent of GDP) and by the low proportion of migrants among the population,
- A relative lack of entrepreneurship, as measured by the rate of new firm creation, compared to advanced European countries.
- A relatively high unemployment rate, reflecting socio-institutional rigidities – a situation where Finland compares negatively to Denmark, and other Nordic countries
- An aging population – Finland will be the first country in the world where those above fifty will soon represent the majority of voters – a trend which unavoidably affects the innovative dynamism of the country while putting pressure on its budget and financial balances.
- The ICT/Nokia dependency, the converse side of the success story, constitutes an additional source of concern to the extent that it makes the economy vulnerable to any slowdown in the performance of this emblematic enterprise. At the same time there is not enough use of ICT in the economy and, most notably, in the services sector⁶. These would require larger and deeper organizational change and innovations.

- Finally the biotech industry has so far not really taken off despite the presence of a number of biomedical equipment firms of world class level. Therefore the upcoming new potential source of growth – the bio-economy – remains limited.

In the face of all these trends, there are good reasons to think that Finland needs to re-boost its innovative dynamism.

Project the Finnish Model on the World

While Finland should find the ways and means to sustain its innovative dynamism and economic vitality, it should also project its model on the world. It is – with other Nordic countries – recognized as a role model, having been able to combine both a very competitive economy with very high welfare society. This model will have to be further perfected, heeding a number of very challenging trends:

- Global warming and pollution are mounting rapidly. There is a need to demonstrate rapidly how an economy can be environmentally sustainable. Becoming a carbon free economy within a few decades will not be an easy task for Finland in view of the economic importance of high energy-consuming industries such as the pulp and paper sector.
- The country will be confronted to various societal tensions which it will have to reduce: as already pointed out, unemployment remains high; the population is getting older; in addition, within a more and more open economy, migration trends increase and create pressures on a society which has been so far relatively closed to foreigners.
- Finally the country should further invest in an exemplary development cooperation and poverty reduction policy. The effort already made in development cooperation is very significant compared to most other advanced countries. It will have not only to be increased but also made as efficient as possible. At the same time Finland should take more advantage of its recognized reputation as peace broker in conflicts throughout the world.

5 See trends in global benchmarking relative to certain variables of competitiveness (notably in IMD reports, Lausanne). See also the recently published "Monto report", pointing the lack of innovative dynamism and the increasing rigidities affecting the Finnish society. The Technology Barometer, prepared by VTT, points also several areas where Finland seems to lose ground as compared to a number of advanced competitors.

6 See for instance Technology Barometer, op.cit

Recommendations

To conclude this very brief analysis, my recommendations can be simply summarized as follows. Finland should seek to be:

- *More open.* This can be done through various channels, including facilitating Foreign Direct Investments in the economy, mobilizing the Finnish diaspora (expatriates), and being more receptive to migration, notably to highly qualified personnel that the economy will need to compensate a probable shortage of skills with a rapidly aging population.
- *More entrepreneurial.* The insufficient individual entrepreneurship is probably the reverse side of the highly communalized character of the Finnish society. This is why it will not be easy to stimulate such entrepreneurial drive. However, strong financial incentives can be effective though they may also affect funding of the welfare society which is based on high taxes. Moreover, it is important to act at the school level in proposing attractive role models to the youth at a time of mind development.
- *More innovative.* As discussed earlier, pressures to innovate have been falling over the years since the early nineties. New challenges need to be felt and formulated: what about becoming a carbon free economy by the middle of this century (2050)? The drive for innovation will come from targeted technologies, not from quantitative objectives such as spending 4 or 5 percent of GDP on R&D (as demonstrated by the failure of the European Lisbon Agenda). This will require an intensive and clever use of new technologies for environmental and social purposes, including security ones. To monitor such progress towards environmental and societal sustainability, new indicators need to be built and utilized both at the macro level and micro level (firms and households)

- *More communicative.* By nature, Finns are not very externally communicative⁷, notably in their relation to the surrounding world. Being more communicative require various types of actions: providing a multi-cultural education starting in the early formative years; publicizing social and environmental experiments which have a value for the world audience; making a broad use of international media for such purposes; and taking a world leadership position on global issues (global warming, civilization clash, etc), possibly in the spirit of the Helsinki process launched some years ago.

In a nutshell, *Finland should re-boost its posture of a pioneering island* with ambitious dreams of leading and serving the world community in the difficult turbulences to which the latter is being confronted.

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7 See Finland, Cultural Lone Wolf, op. cit

3 Blind spots and unrecognized challenges to the future for Finland

Leif Edvinsson

Positioning Finland

Let us start by mapping out the current situation in Finland. Based on statistics from Ecofin, the following table was presented in Affärsvärlden 2006:

| | GDP 2005 per capita USD | Wellbeing | Consumption Power-index | Global comp | Labor market |
|---------|-------------------------|-----------|-------------------------|-------------|--------------|
| Norge | 38 550 | 1 | 9 | 9 | 12 |
| Denmark | 31 550 | 13 | 6 | 4 | 6 |
| Sverige | 29 770 | 6 | 1 | 3 | 17 |
| Finland | 29 560 | 14 | 3 | 1 | 14 |

In short this table indicates that Finland is or was very good in Global Competition, i.e. hard working, but less good in getting benefits from it in terms of shared wellbeing.

By looking at the IC wealth of nations rather than standard measures of national competitiveness, we may gain new insights into where a country's enablers of wealth creation might lie. We can then more effectively nourish social innovation and societal entrepreneurship. One such very interesting proposal has recently been presented, Dec 2006, from TICRC – Taiwan Intellectual Capital Research Center by professor Carol Y. Lin with her research colleague Janet I. C. Lee.

IC indicators are grouped into the following categories (see also Appendix 1):

- *Human Capital*; indicators for literacy, education, training etc.
- *Process Capital*; indicators for business as well as government efficiency, infrastructure etc
- *Renewal Capital*; indicators for R&D, patents, science, networking
- *Market Capital*; indicators for trade, tax, openness to foreign culture

The table in Appendix 2 gives a comparison between Finland and some 40 countries. The position of Finland is very

good. Finland ranked number two in the overall index ranking. Finland is comparatively weak in Financial Capital index, with a rank 13. In Human Capital index Finland ranked 4 as well as in Renewal Capital, but only 6 in Market Capital index. So it indicates that Finland is good at Process Capital, but less good in scaling up the benefits from it and a weakening position on renewal Capital. This has of course severe implications for the future of wellbeing.

Finland in IC Comparison of the Nordic countries

The Nordic countries have great reputation on their Intellectual Capital. In a comparison between the five Nordic countries, presented by professor C. Lin at TICRC, each country has an Intellectual Capital index better than most other countries. All the five Nordic countries were ranked top 10. Finland's process capital is the best.

All capitals of the Nordic countries exhibit positive trends during the period 1994–2004.

Finland's renewal capital also has the most valuable improvement among the other capitals, but takes a sharp downturn at the end of the period. Finland's financial capital performs the worst among the five countries. On Human Capital index all the countries seem to have a somewhat weakening index and the end of the period. See more in Appendix 3.

According to the World Bank in 2006 Denmark is scored as the most attractive country to establish a new enterprise as a result of three factors; high foreign language capabilities, high IT capabilities and infrastructure, and *flexible bureaucracy*. This can be illustrated by the well known labor market system called "*flexicurity*" as well as the Law on IC Reporting, which only demand enterprises by law to report on Intellectual Capital if it is of importance to their future.

According to research from Dr. Nick Bontis in Canada the future sustainability of a nation is very dependent on systematic investment into intangibles and suggests the fol-

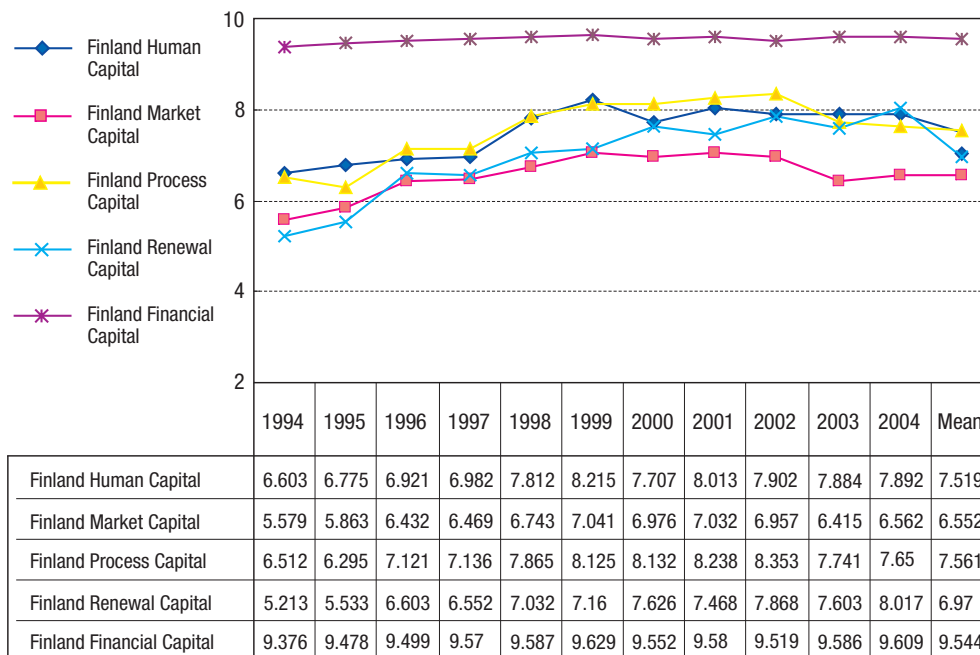


Figure1. Numbers and Trends of Finland's intellectual capital index

lowing represent the key areas for the political agenda to address:

- National agenda for renewal, R&D, i.e., *innovation capital*;
- National agenda for education, i.e., *human capital*;
- National agenda for foreign trade & networking, i.e., *relationship capital*;
- National agenda for industrial productivity, i.e., *process capital*.

Above referred research shows how extremely essential for Finland it is to pay attention to the dimensions of: *Renewal Capital and Human Capital*

By a refined Global perspective and an imaginative plan Finland might be able to leverage the *tacit* knowledge of its citizens, connect it to the global migrating talent force as well as the global scaling up of R&D investment, especially in Asia.

This innovative leadership should be searched in the roots of the culture of Finland and combined with cross-generational and cross-cultural input for a mutation into something unique.

Some Future Steps for Finland

Based on the positioning of Finland in these tables as well as others the following steps might be considered:

1. From the study of the old famous and very sustainable city of *Ragusa* we can extract some lessons that might

be of value today. Why was this city sustainable for such a very long period of time, 1201–1806, without a traditional military force in spite of a very hostile and competitive environment? Some selected observations in short:

- it had a very special intelligence task force looking into the unknown threats and opportunities, called *Dragomans*, stationed in some 60 plus sites around the Mediterranean
- it had a profound and very efficient school system
- it was focused on diplomacy as a social skill
- it was searching for sustainability as a social goal
- it was a city-state

Ragusa, today called Dubrovnik, became the origin of something called *social intelligence*. The opposite might be called *social ignorance* or not knowing about future social threats or opportunities. For Finland, which scores very highly in many rankings of the global competitiveness, it might still be an area for improvement, e.g. **a special task force for social intelligence**, focused on the social value creating sustainability and educational systems. A special aspect of this task force is to identify the challenging questions rather than the solutions. However, it is also essential to make clear that this work on social intelligence is performed under different time horizons, or *longitude perspectives*. It can be completed in the very short-term perspective e.g. 1–5 years, but also mid-term perspectives 5–10 years, or the longer perspective of 15 years and beyond. The impact of social innovations usually becomes evident from a long-term leadership perspective.

2. A second point could be to consider some kind of benchmark for learning indicators of *Intellectual Capital for Nations*, as done by professor A. Bounfour and then go deeper into the learning from the work on Intellectual Capital (IC) of Austria, as done by professor G. Koch. This could result in a *National Report on the Intellectual Capital of Finland*, as done in some other countries. The value would be to get a more systems dynamic perspective on *the key drivers* for the future of Finland.
3. A third step could be to compare notes with some different *Global Councils*, such as the one in Denmark, and the new one starting in Sweden. This is a mapping exercise with deeper self-assuring dimensions. It might also be connected to the suggestions of the previous step (2) in shaping a new type of *IC Observatory* for Finland as well as *prototyping projects for IC of Societies*, in collaboration with the New Club of Paris. Historically, the Observatory was the place for Science. It might also be connected to the geopolitical locations of Finland.
4. A fourth step and perhaps even more challenging perspective is to look into *social innovations* for the renewal and sustainability of the society. Most of the innovations are in the area of products and production. As little as one percent is referred to as management innovations, by an article in Sloan Management Review, Summer 2006. What is the percentage of social innovations in Finland during the last 5-10 years? As Finland becomes a more urbanized society, innovative social systems will become necessary to address the issues of both its urban citizens as well as opportunities into tap the knowledge of its senior citizens. Research indicates for example that senior citizens might have a unique potential for innovation rather than becoming a social burden – as is the current stereotype. If the seniors are connected with younger generations more creative and innovative solutions emerge. A special pioneering *Lab for Social Innovations* as the very first one in the World might be proposed, initially for domestic purposes in Finland but later on also for export purpose of New Social Capital Solutions. Lessons can be learned from the existing EU project on Future Centers with among others participants from the Ministry of Social Affairs, and Ministry of Taxation in Holland, but also Ministry of Economics in Denmark.
5. A fifth step might be to take a global perspective on *human migration* and human capital concentration. So far it has been USA on the top of most R&D as well as higher education, and with the volume of intellectual potential in Asia, but the so-called *Brain circulation* might indicate new opportunities for Finland, not only “Battle for Brains.” A special report in Economist Oct. 2006 highlights the importance for both nations as well as enterprises to look into the social challenges presented by a shortage of talent and the dynamics of an

aging population. For Finland this will require a capability to manage the available skill pool. The traditional labor market perspective needs to be broadened to a talent and brain power market to be able to attract the brains to work with and for Future of Finland. It could be initiating *Special Campus areas for The Bridging of Minds* from Asia and Americas to come to collaborate with Finland for more commercial innovations and higher sustainable value creation. It might be necessary to have a *Ministry of Brain Power* to fertilize the migration infrastructure.

Intelligence Policy

Renewal capabilities of societies might be one of the most challenging tasks, especially for Finland. It is challenging the existing power structures as well as its institutions, i.e. structural capital. It is getting its energy from the roots, i.e. the social capital and culture. Consequently the Intelligence policy has to be open in its architecture to inspire people to use the structural capital of its nation. This has a lot of similarities to Wikipedia, which is based on volunteering continuous update of the core, Unlike a traditional encyclopedia, this system is based on the input of subject-matter specialists who continuously update the individual articles. A traditional encyclopedia is updated perhaps once every 10 years. Another metaphor for the social innovation might be the now renowned Grameen Bank started in 1983 by Muhammad Yunus, who was awarded the Nobel Prize in Peace in Dec 2006. The bank is owned by its customers, mainly females and is famous for its micro credit. A national policy for renewal should learn from these new social capital constructs like Wikipedia and Grameen Bank.

An intelligence policy is building on social intelligence and an energizing vision for a larger future. It is extracting signals from roots inside and outside its domain in a global context. It is cultivating the networks of critical intangible intellectual resources and relational capital into a higher degree of mobilized collective intelligence. It is further characterized by rapid renewal through social innovation prototyping.

From this we can also see the importance of the local culture and its relative uniqueness. On the enterprise level, research shows that in management conflicts, the culture is always a more sustainable driver than traditional power. The mandate for societal leadership is evidently emerging from its roots, i.e. citizens and their context. An intelligent policy maker focused on renewal has to balance Finland within the global context, like in the old city state Ragusa. Thereby Finland has a potential to become a sustainable intelligent region.

Appendix 1

Table 1. Variables of each type of capital proposed by TICRC study

| Human Capital index | Market capital index |
|---|--|
| <ol style="list-style-type: none"> 1. Skilled labor* 2. Employee training* 3. Literacy rate 4. Higher education enrollment 5. Pupil-teacher ratio 6. Internet subscribers 7. Public expenditure on education | <ol style="list-style-type: none"> 1. Corporate Tax* 2. Cross border venture* 3. Openness to foreign culture* 4. Globalization* 5. Transparency* 6. Image of your country* 7. Exports & imports of services |
| Process capital index | Renewal capital index |
| <ol style="list-style-type: none"> 1. Business competition environment* 2. Government efficiency* 3. Intellectual property right protection* 4. Capital availability* 5. Computers in use per capita 6. Convenience of establishing new firms* 7. Mobile phone subscribers | <ol style="list-style-type: none"> 1. Business R&D spending 2. Basic Research* 3. R&D spending/GDP 4. R&D researchers* 5. Cooperation between universities and enterprises* 6. Scientific articles* 7. Patents per capita (USPTO + EPO) |

Source: Lin, Y.Y.C. and Lee, J.I.C., 2006, *National IC: A comparison of Japan, Korea and Taiwan*. Taiwan Intellectual Capital Research Center.

Appendix 2

Table 2. Composite Scores and Rankings of National Intellectual Capital Indices for 40 Countries from 1994 to 2004

| | Human capital index | | Market capital index | | Process capital index | | Renewal capital index | | Financial capital index | | Overall Index | |
|----------------|---------------------|---------|----------------------|---------|-----------------------|---------|-----------------------|---------|-------------------------|---------|---------------|---------|
| Mean | 5.56 | | 5.58 | | 5.09 | | 3.59 | | 8.70 | | 28.67 | |
| SD | 1.12 | | 0.92 | | 1.44 | | 1.87 | | 1.11 | | 5.81 | |
| Country | Score | Ranking | Score | Ranking | Score | Ranking | Score | Ranking | Score | Ranking | Score | Ranking |
| Japan | 6.40 | 10 | 4.33 | 37 | 4.88 | 21 | 7.15 | 3 | 9.86 | 3 | 32.74 | 13 |
| Korea | 5.46 | 23 | 4.68 | 33 | 4.59 | 23 | 3.96 | 19 | 8.66 | 25 | 27.37 | 21 |
| Taiwan | 6.11 | 14 | 5.84 | 17 | 5.78 | 16 | 4.63 | 13 | 8.91 | 22 | 31.23 | 18 |
| Argentina | 4.55 | 31 | 4.19 | 38 | 2.91 | 39 | 1.69 | 36 | 8.26 | 26 | 21.61 | 35 |
| Australia | 6.40 | 11 | 6.02 | 15 | 6.78 | 7 | 4.27 | 17 | 9.39 | 18 | 32.87 | 11 |
| Austria | 6.64 | 9 | 6.43 | 7 | 5.83 | 15 | 4.21 | 18 | 9.61 | 7 | 32.77 | 12 |
| Belgium | 6.26 | 13 | 5.57 | 21 | 5.45 | 18 | 4.55 | 14 | 9.55 | 11 | 31.43 | 16 |
| Brazil | 4.14 | 36 | 4.79 | 31 | 3.41 | 33 | 1.74 | 34 | 7.71 | 33 | 21.78 | 34 |
| Canada | 6.87 | 6 | 6.13 | 12 | 6.53 | 10 | 4.70 | 11 | 9.43 | 17 | 33.70 | 10 |
| Chile | 4.60 | 30 | 6.30 | 8 | 4.50 | 25 | 1.94 | 33 | 7.93 | 30 | 25.27 | 26 |
| China | 3.70 | 39 | 5.07 | 27 | 3.34 | 35 | 2.28 | 27 | 6.28 | 39 | 20.67 | 39 |
| Czech Republic | 4.81 | 28 | 5.37 | 23 | 4.06 | 30 | 2.45 | 25 | 8.12 | 27 | 24.81 | 28 |
| Denmark | 7.71 | 1 | 6.56 | 5 | 6.97 | 3 | 5.46 | 7 | 9.81 | 4 | 36.58 | 5 |
| Finland | 6.75 | 7 | 6.55 | 6 | 7.56 | 1 | 6.97 | 4 | 9.54 | 13 | 37.47 | 2 |
| France | 5.95 | 18 | 4.87 | 30 | 5.18 | 19 | 5.07 | 9 | 9.55 | 12 | 30.68 | 20 |
| Germany | 6.07 | 15 | 5.34 | 24 | 5.71 | 17 | 5.80 | 6 | 9.60 | 9 | 32.62 | 14 |
| Greece | 4.82 | 27 | 5.14 | 26 | 4.10 | 28 | 1.99 | 31 | 8.84 | 23 | 24.89 | 27 |
| Hungary | 5.60 | 22 | 5.83 | 18 | 4.40 | 26 | 2.41 | 26 | 8.08 | 28 | 26.32 | 24 |
| Iceland | 6.68 | 8 | 6.65 | 4 | 6.68 | 8 | 4.74 | 10 | 9.71 | 6 | 34.47 | 9 |
| India | 3.36 | 40 | 4.65 | 34 | 3.36 | 34 | 1.70 | 35 | 5.66 | 40 | 18.73 | 40 |
| Ireland | 5.66 | 20 | 7.06 | 2 | 6.16 | 13 | 3.84 | 20 | 9.51 | 15 | 32.24 | 15 |
| Italy | 5.97 | 16 | 4.62 | 35 | 4.54 | 24 | 2.67 | 23 | 9.37 | 19 | 27.19 | 23 |
| Malaysia | 4.82 | 26 | 6.09 | 14 | 4.88 | 20 | 2.13 | 29 | 7.81 | 31 | 25.73 | 25 |
| Mexico | 3.99 | 37 | 4.71 | 32 | 3.27 | 37 | 1.36 | 40 | 7.99 | 29 | 21.33 | 37 |
| Netherlands | 6.40 | 12 | 6.95 | 3 | 6.55 | 9 | 5.19 | 8 | 9.56 | 10 | 34.69 | 7 |
| New Zealand | 5.97 | 17 | 6.25 | 10 | 6.22 | 12 | 3.49 | 21 | 9.11 | 20 | 31.06 | 19 |
| Norway | 7.10 | 3 | 5.96 | 16 | 6.93 | 5 | 4.66 | 12 | 9.91 | 2 | 34.57 | 8 |
| Philippines | 4.33 | 34 | 4.91 | 29 | 3.29 | 36 | 1.61 | 37 | 7.78 | 32 | 21.92 | 33 |
| Poland | 4.76 | 29 | 4.06 | 39 | 3.17 | 38 | 2.09 | 30 | 8.77 | 24 | 22.84 | 30 |
| Portugal | 5.37 | 24 | 5.26 | 25 | 4.37 | 27 | 1.95 | 32 | 6.52 | 38 | 23.47 | 29 |
| Russia | 4.54 | 32 | 3.89 | 40 | 2.65 | 40 | 2.88 | 22 | 7.29 | 36 | 21.27 | 38 |
| Singapore | 5.78 | 19 | 8.17 | 1 | 6.90 | 6 | 4.53 | 15 | 9.51 | 14 | 34.88 | 6 |
| South Africa | 4.16 | 35 | 4.59 | 36 | 4.07 | 29 | 2.15 | 28 | 7.55 | 34 | 22.52 | 31 |
| Spain | 5.22 | 25 | 5.72 | 19 | 4.72 | 22 | 2.55 | 24 | 9.09 | 21 | 27.31 | 22 |
| Sweden | 7.44 | 2 | 6.17 | 11 | 6.96 | 4 | 7.49 | 2 | 9.61 | 8 | 37.72 | 1 |
| Switzerland | 6.96 | 4 | 6.26 | 9 | 6.35 | 11 | 7.83 | 1 | 9.95 | 1 | 37.45 | 3 |
| Thailand | 4.42 | 33 | 5.54 | 22 | 3.76 | 31 | 1.50 | 39 | 7.28 | 37 | 22.50 | 32 |
| Turkey | 3.93 | 38 | 4.98 | 28 | 3.42 | 32 | 1.61 | 38 | 7.51 | 35 | 21.45 | 36 |
| UK | 5.64 | 21 | 5.66 | 20 | 6.14 | 14 | 4.37 | 16 | 9.49 | 16 | 31.35 | 17 |
| USA | 6.90 | 5 | 6.10 | 13 | 7.26 | 2 | 6.96 | 5 | 9.80 | 5 | 37.17 | 4 |

Source: Lin, Y.Y.C. and Lee, J.I.C., 2006, *National IC: A comparison of Japan, Korea and Taiwan*. Taiwan Intellectual Capital Research Center.

Appendix 3*

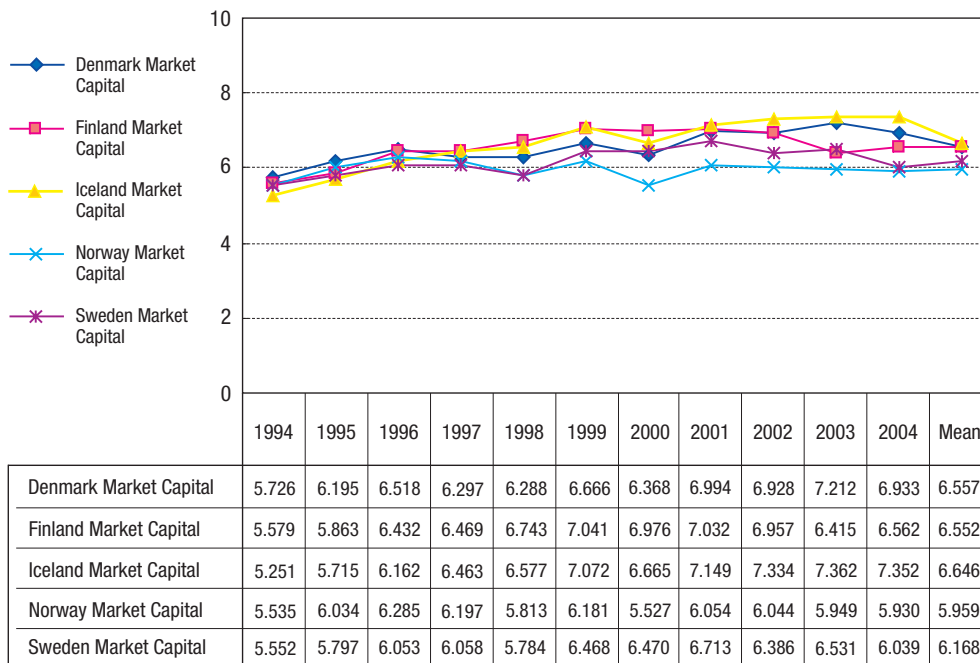


Figure 1. Comparison of **market capital** index of the Nordic countries

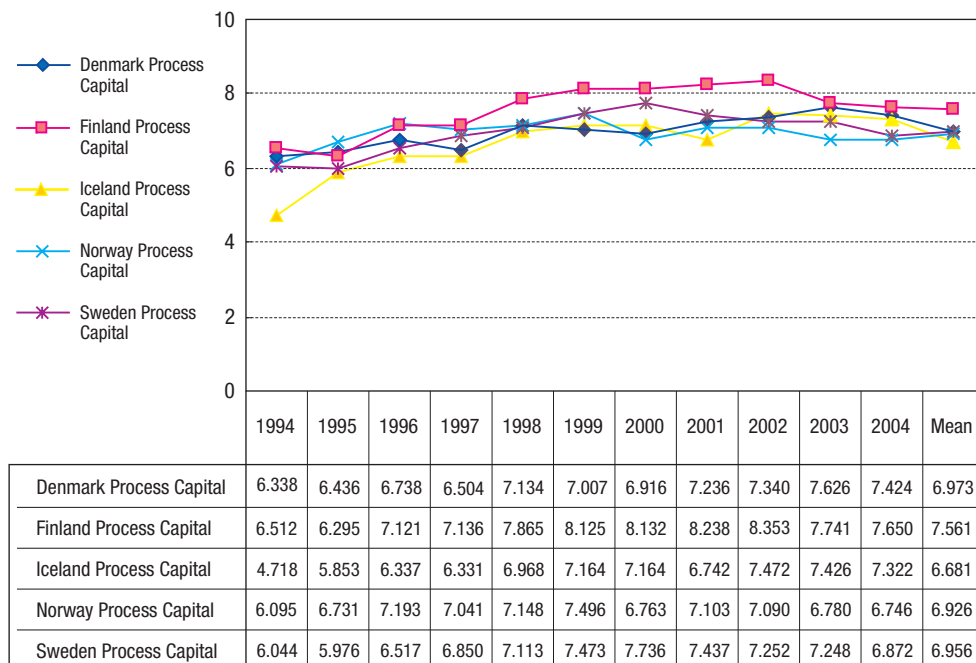


Figure 2. Comparison of **process capital** index of the Nordic countries

* Source: Lin, Y.Y. and Lin, T.Y. (2006) *A comparison of the Nordic countries*, TRCRC, Taipei.

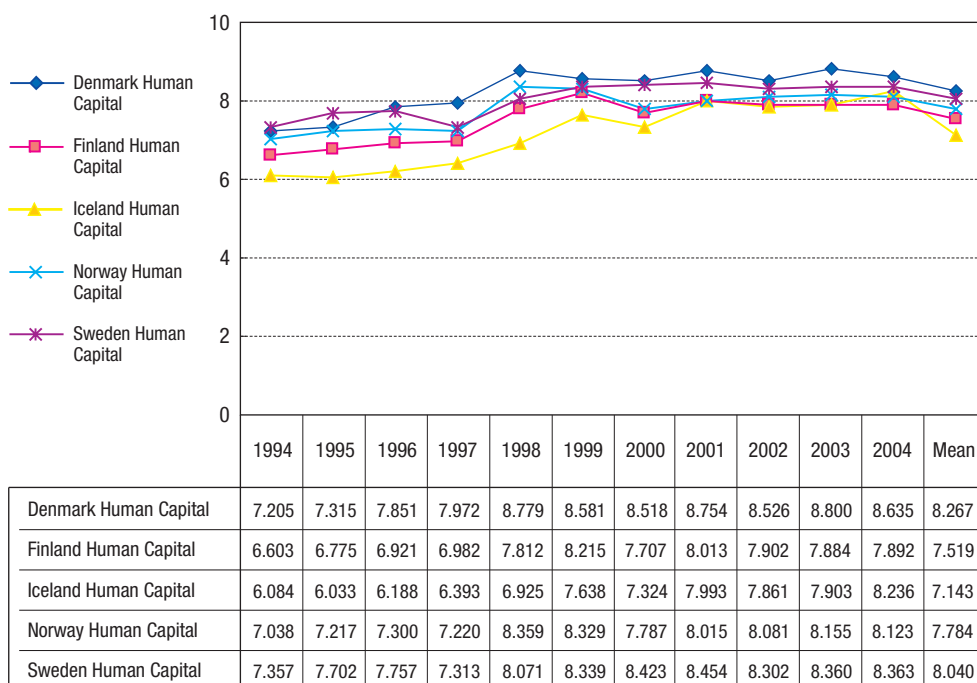


Figure 3. Comparison of **human capital** index of the Nordic countries

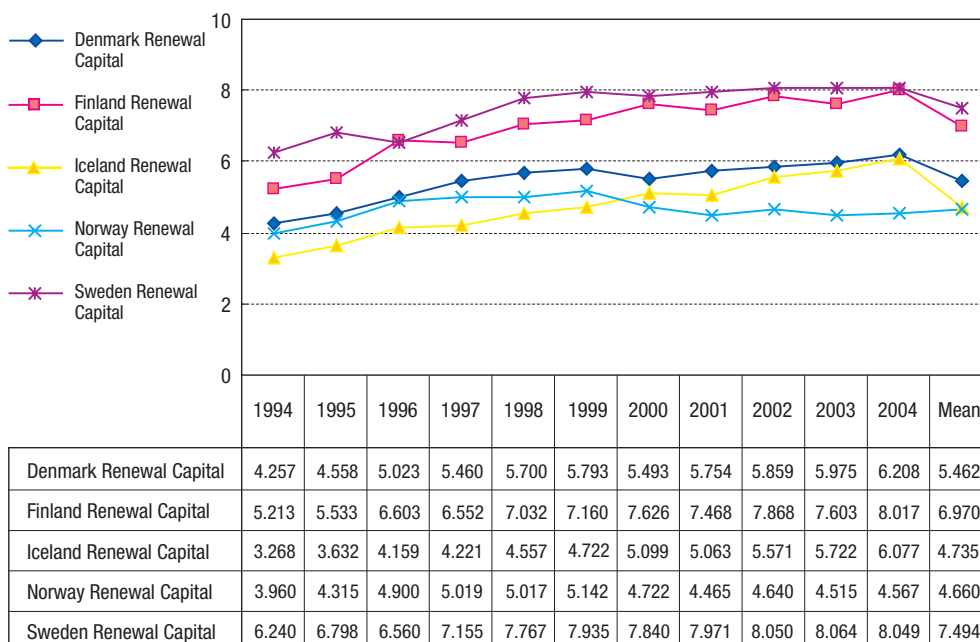


Figure 4. Comparison of **renewal capital** index of the Nordic countries

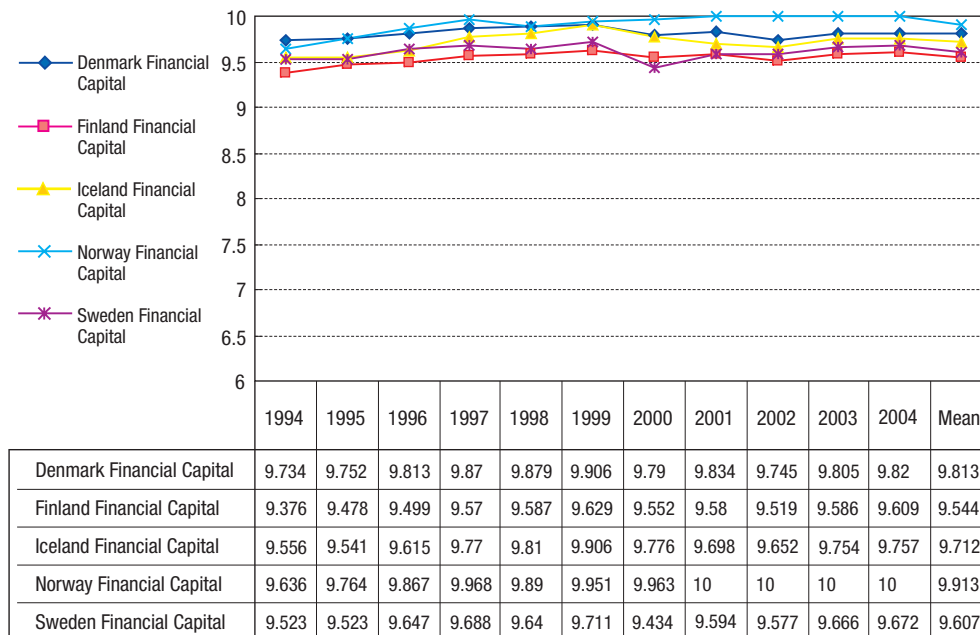


Figure 5. Comparison of **financial capital** index of the Nordic countries

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4 What to endow to a country which already has everything? Finland in transition towards the Knowledge Society

Günter Koch

Finland in comparison to other (European) nations is doing so well in its economic and social development that it would be looking for a fly in the ointment in order to construct issues of critique. The approach therefore taken is that from the studies exploited in preparing the Round Table, possible comparative deficits were identified. These weaker points were analysed for how they could be potentially compensated by political measures.

The five “question marks” discussed are:

(1) the adoption of foreign cultural elements as a contribution to increasing knowledge about global markets, (2) to develop an understanding that the products of the future will mainly be services, or more generally, intangibles instead of material goods, (3) innovation being considered as an ultimate strategic factor needs innovators which typically shall be entrepreneurs to be cultivated, (4) good mental health as a precondition complementary to a good intellectual condition for not only understanding what the Knowledge Society is but also to “feel” it and to feel good about it, and finally: (5) a national “knowledge strategy” one objective of which would be to produce an annual national “knowledge report” shall be defined and instituted.

Finland and the Knowledge Society

As pointed out in many studies and by rankings such as [1] or [2], Finland in many respects has recovered from a major economic and political crisis at the beginning of the last decade before our century. Then, within a bit more than ten years, it has become one of the most successful economies in Europe. Because of this most impressive development Finland became the subject of analysis by many other nations, which tried to understand the conundrum of how this country made its way to success. Some answers which are given by the Finns themselves can be found in various reports [3].

Success can be seductive and counterproductive to the permanent endeavours to maintain it in terms of a continuous

fight against entropic dilution and dissolution. Besides investments through endeavours, intelligent behaviour and hard work, progress in a nation’s development is also driven by its ability to adapt to changing conditions and contexts affecting it from the exterior. This induces not only a strategy just to stay better and faster, but rather to be more innovative and more “clever” than competitors on the markets which are now global in nature. The shifts to be managed, first hand are shifts of mind, or, in terms of perceiving of what is changing, shifts of paradigms. The challenge is to recognise, to identify and to capture the paradigmatic changes which raise and exercise influence on a country’s future.

With the proclamation of the so-called Lisbon strategy, the members of the European Union decided to commit themselves to act towards the construction of a European “knowledge based economy”. After the two decades before had been governed by the notion and strategy of Europe to become an Information Society, the challenge now evidently is to transform into a “Knowledge Society” and thereby also to constitute a “Knowledge Economy”. The interesting observation in most of the official declarations of governmental authorities – and this also holds for the Finnish Government [6] – is that the understanding and definition of such a Knowledge Society is rather vague. Either the definition refers knowledge as “something above” information and therefore the Knowledge Society is considered to be an extrapolation of the Information Society. Also the re-combination of classical departments of a governmental administration responsible for education, science, innovation and technology may be considered to be the model of governmental contribution to design the Knowledge society.

According to *The New Club of Paris* the characteristics of the emerging Knowledge Economy can be described as follows:

A major challenge from the future changes is that our economy is increasingly transforming into an “intangible” economy which is described as a “knowledge based economy”.

Indicators of this development initially are:

- the new relation between material (e.g. manufacturing) and nonmaterial (e.g. services) resources ;
- the sharing of commonly available knowledge;
- the realization that global competition can lead to rapid relocation of economic activities such as software, media creation, healthcare as well as “mind-intensive” industries;
- the radical change in work structure causing also inducing lifelong learning, adaptation and flexibility;
- the increasing “knowledge divide” within societies as well as among nations on a global scale.

The move towards the knowledge society and knowledge economy affects both the micro- and macro-economic dimensions. This change, which is deeper than often stated, does not protect “traditional” industries. The knowledge economy has an impact on the value creation process, fundamentally altering the organisation of work, creating new forms of borderless cooperation and intercultural exchange.

Politics has acknowledged this change at best in its rhetoric dimension, but has not addressed its true policy implications. Slogans about competitiveness, maintenance and creation of workplaces, as well as safeguarding social standards, are the vocabulary of yesterday. The strategies propagated to recover from recessions are generally lacking in imagination and courage to enter into the new paradigms of the knowledge society and economy. As a consequence, a new definition and understanding of leadership is missing.

We are aware that after a - still ongoing - period of concerns about ecological challenges and environmental issues, which initially were addressed by the “Club of Rome”, we now enter a phase of concerns about knowledge, education, creativity, and innovation capabilities, in brief, what should be named: “the paradigm of an economy of the intangibles”.

This also means that the intellectual, social and cultural issues in an integrated view require much higher attention. They are the determinants of “Third Phase Industries” based on creativity, software, media, finance, services, and, more generally, combined intelligence. They are of decisive importance to the development of all sectors, including traditional tangible ones. Only through careful and sustainable utilization of the new, nonmaterial resources we will be in a position to better organize material and energy resources which are becoming increasingly short in supply.

Exterior and Interior Views

One suggestion made for our discussion at the Round Table was to look at Finland from two angles: the internal projection, i.e. what the country may need for its internal development and the external projection, as well as the balance between these two views. Going to economy, it is our conviction, and has been proven, that world markets can be served at best by a nation if its home base in terms of social integrity, educated resources, available intelligence, advanced infrastructure, developed markets and a balanced financial system is sound and works well. (A side remark: This claim raises a specific concern on the exportation of industrial processes to far-from-home locations, because this could potentially break up or even destroy the integrity of “the home base”). The “dichotomy of locations” is considered to be a most relevant problem for those highly developed economies which foresee keeping their ‘thought business’ such as R&D at home and which are about to export their production facilities elsewhere.

In a world of virtual cooperation where knowledge products such as software is produced at different locations, it is no longer a logistical problem, but remains an issue a) of efficient new working infrastructures and b) of how to market new products (including services) with respect to new and foreign markets – assumed that Finland will continue to aim for increasing global market share and thereby wants to make its current economic success more sustainable.

Innovation today includes much more than mastering a technology, and, to further expand on technological know-how, rather than to understand the social and cultural contexts where (Finnish) products will be used. Innovation no longer is a business of inventing new universal products for the world from home offices and brings them to world markets by means of well defined processes, rather than to personally spread out to the future markets, i.e. to future customers. For this purpose the need will grow eventually to use (networking) diasporas of Finns throughout the globe. This will become a mandatory process in order to acquire and to understand the needs, expectations, wishes of “foreigners” and to serve these foreigners with products which are increasingly becoming more “personalised” if not “individualised”. (As will be argued a few sentences later the term *diaspora*, which marks the existence of *islands of representatives of a culture in a foreign environment*, denotes a phenomenon that needs to be associated with the question of innovation, which is considered by all the authors of the above mentioned reports to be *the* No. 1 challenge for further beneficial developments of the Finnish society and economy.)

Some Observations and Suggestions on How to Prepare for the Future

The first question in the self-projective view is how will Finland master the cultural “clashes” which are to be faced when exported products (including services) will not and can no longer be “imposed” on other societies rather than conveyed in a most friendly and sympathetic way (which conforms to the image the Finns earn abroad). In other words: what are Finland’s plans to manage the cultural exchange between its industries’ customers and their contexts in the world and the internal understanding of foreign cultures? One relevant indicator for this process is Finland’s ability to “absorb” immigrants and their specific knowledge. As a matter of fact and statistics, this is one of the factual weaknesses to be compensated.

A second question related to the first one is, if Finland’s working citizens (and thereby subjects of and within the economic processes) are aware that the majority of products of the future will no longer be tangible pieces e.g. of technology rather than intangible products such as services, in specific knowledge based services. Trends in every developed country prove that the economy is undergoing a dramatic change which can be identified as the “next industrial revolution”, or a “transformation into the economy of in-

tangibles”, which first hand will be services as products. This may either be “materialised” intangibles such as software driving a mobile phone or a car depending on its electronics, or “immaterial intangibles” such as services or creative performances. The paradox is that such services already are marketed, but adequate economic models for evaluating them do not yet exist. A computer is still sold in a way that its invoice is compiled from “material items” rather than from the benefits which it provides to its user.

The evidence for this evolution is abundant, as Figure 1 illustrates:

1. Both in working places and in value, services are growing, whereas (material) good production decreases.
2. The development of economic production in proportion between agriculture, industry and services in different economies such as the US, Japan, Germany, China, India and Russia shows different profiles, but the asymptotes show a tendency of agriculture to fall lower than 5% and services going beyond 80%.
3. In most OECD countries, and this holds in specific for Finland, the proportion of services has grown over the last two decades by double to triple in volume and, in absolute terms, to a bit less than 50%. Only the “poorer” former socialistic countries have decreased in service volume, due to the fact that they had to develop their scarcely existing industrial production base.

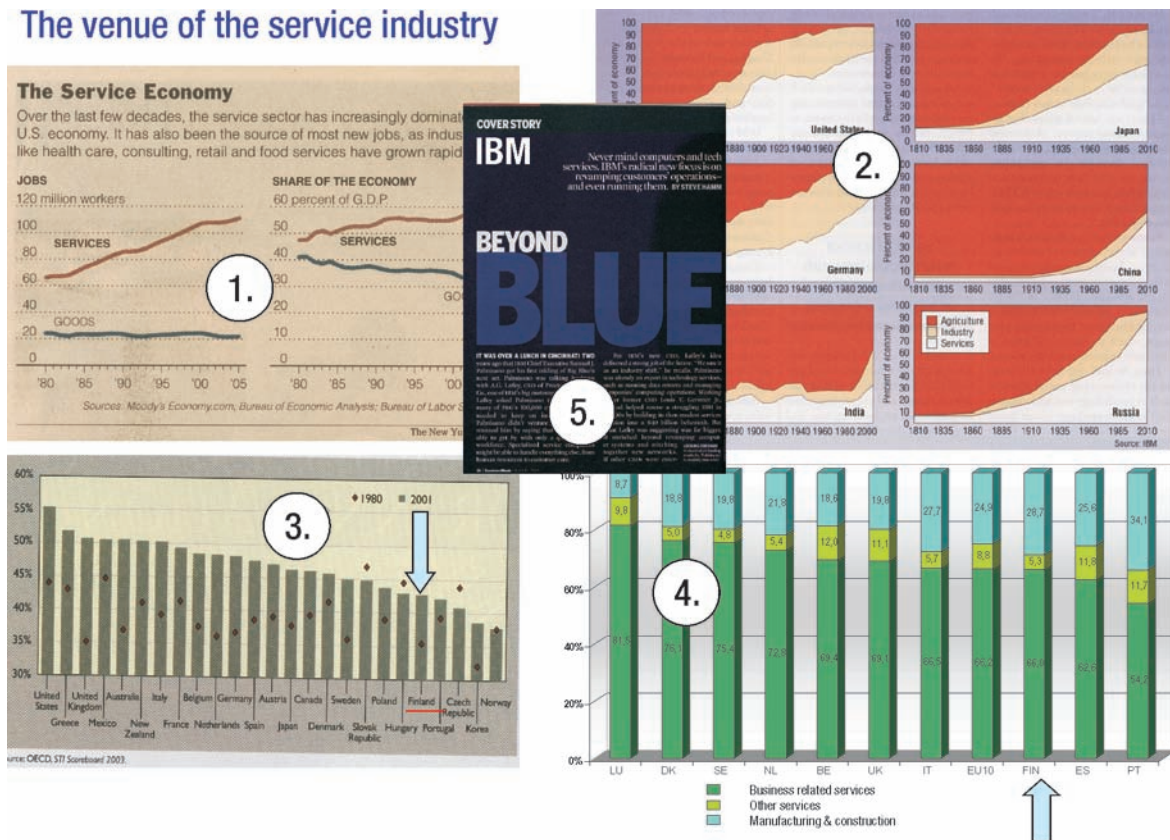


Figure 1. The venue of the service industry

4. Since the year 2000, in all European countries, newly founded companies were started in services, in some countries like the BENELUX this level is at 80%, and the majority of such services is knowledge based.
5. The world's historically leading IT company, IBM, converts itself from a technology company towards a services company, even in their employment profile: Qualifications searched are less technical than with foundations in sociology, culture and humanities.

Thirdly, if innovation is a synonym for *paradigmatic shifts* as explained in section 1, the question would be, how well prepared are Finland and its citizens to enter a culture of innovation? The famous economist and Noble Prize winner Josef Schumpeter, some 80 years ago in his book "Business Cycle" stated that "...any 'doing things differently' in the realm of economic life: all these are instances of what we shall refer to by the term *innovation*". He was convinced that old paradigms need to be left behind in order to replace them by new ones. For him, an entrepreneur was an ideal innovator who deliberately destroyed 'the old' in order to replace it by 'the new'. In an inverse conclusion, innovation at large would also require that many participants of the economic life become *entrepreneurs* – a vision which is not sufficiently well adopted by Finnish citizens, given that the country lacks SMEs that could serve as the "yeast in the dough". The price Finland is paying for its success model of an egalitarian society is that entrepreneurship is not sufficiently rewarded and the conundrum to be solved will be how to motivate young talents to choose the risky but satisfying life of an entrepreneur instead of the safer life of a careerist?

A **fourth question** is raised on the basis of a recent study on "Life satisfaction, happiness and sense of belonging" in European countries [7]. Overall, i.e. not only in terms of performance in economy and knowledge, also in the dimension of satisfaction and happiness, Finland ranks high in comparison to countries like Portugal. The study explains that this correlates to the economic well being and the material safety that most of the Finns can enjoy. However, self satisfaction in a world of less satisfied neighbours, specifically the new neighbours around the globe, may be a potential disincentive to stay on top. The political and strategic question is, which measures need to be taken in order to wake up the Finns for the change.

Entering the Knowledge Society is not only a matter of understanding it in a rational way how it may be structured and how the Knowledge Economy works, it is also a process which needs to be transitioned from the rational dimension into the second "compartment" of human existence, which is his/her *emotional and mental condition*. i.e. the challenge to Finnish policy makers is to find the means and ways to address their country(wo)men and to install in them a sense of enthusiasm for change. (Since we know that buying a technical product such as a car, an iPod or a mobile phone, is not only a matter of a rational rather than an emotional decision, we must accept that any commitment driven by a logical conviction needs to be completed by an emotional motivation).

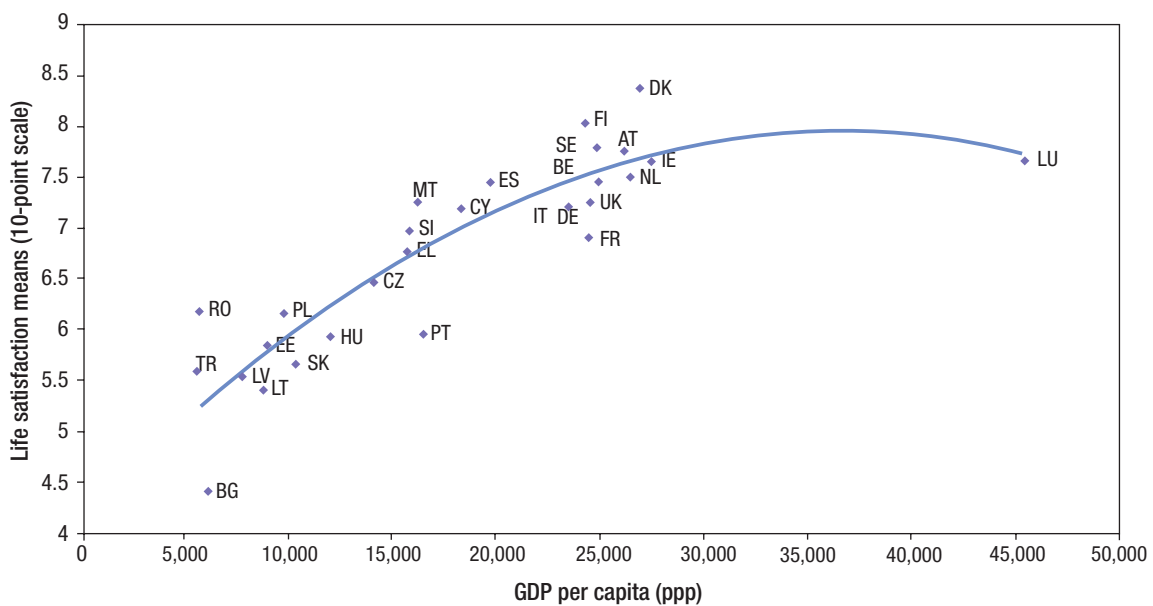


Figure 2: Finland's citizens live in satisfaction

A **fifth** and – in this contribution – final observation: The transition towards the Knowledge Society & Economy needs to be supported by processes induced by a (new) Knowledge Politics (not only ‘Policy’), integrating education, science, research, knowledge creation, innovation, social and economical developments. Politics in a democracy are made by people and it means participation of people in decision making processes. The challenge is to set up a large process of a) raising understanding of what the Knowledge Society will be and b) that each and every one can take part in a knowledge process.

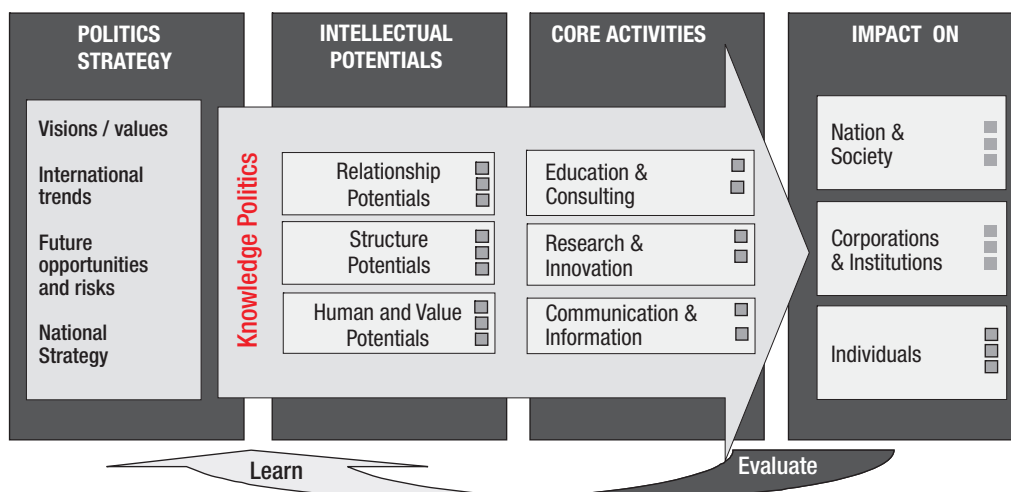
In Austria, a method for contributing a national “Knowledge Report” [8] is being developed. It is intended to motivate different groups being constituted in society as (political) opinion contributors – not only political parties and bodies rather than NGOs, religious groups, unions, employers’ and employees’ associations – are invited to participate in the process, following a framework of “Intellectual Capital Reporting” [9]. This model, represented in Figure 3, associated with a set of processes and rules, is how this report will be constituted, and forms the framework from which a nation-wide discourse on what Knowledge Society should be. Without such involvement of many, the idea of a Knowledge Society is too much understood in terms of information technology.

In a simplified model we conceive the Knowledge Society, parallel to the evolution of economy through several cycles starting from agriculture via industry to the information

and services economy. The Knowledge Economy is “the next economy” and we may already sense that further up the road the cycle beyond may be the “Wisdom Economy”. Consistent with this concept, the path of society is foreseen from today’s Information Society towards the Knowledge Society of tomorrow, which is also a “Cultural Society” including more than the rational intellectual emergence, i.e. also the mental and emotional expression, and finally ending up in a “Wisdom Society”. This evolutionary process will require a set of aspects within a triangle, formed by *people’s* needs and requirements, by *environmental* and ambient conditions and by *technological* contexts must be considered by means of an integrated political approach. This (hi)story must be reflected inside the “island” of Finland as well as towards and from the exterior, i.e. in reflection to the world surrounding this island.

Figure 4 combines these many aspects of a policy, which recalls the arrangement and conducting of a large orchestra with many players and instruments to become harmonized. The themes to be addressed by politics are pinned to a circle which is spanned by a triangle, the corners of which are pillars of a Knowledge Economy: (1) people, (2) infrastructure made by technology and, becoming more and more important: (3) Ambiance, Culture and Environment As the Finnish society and the politicians representing this society so far understood how to bring this orchestra to play well, a summary recommendation may be to build upon this ability and, at the same time, aim for becoming more a risk taker instead of staying a risk obviator.

A national IC Report (as the one under development for Austria) focuses on overall objectives and strategic key success factors of integrated Knowledge Politics for a country.



National IC-Model (wbö) following the original “Wissensbilanz” model of U. Schneider & G. Koch, 1998 / 1999

Figure 3. Austrian Structural Model for a national Knowledge Report

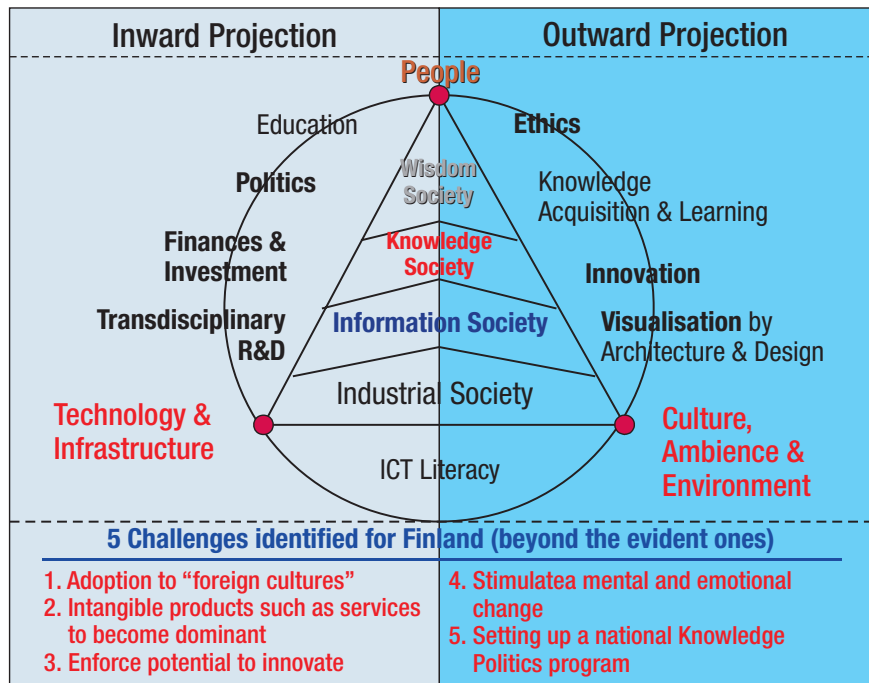


Figure 4. Conclusive view of the discussion conducted in this article

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5 Dynamic Capabilities of Communities and Finland's New Path

Ahmed Bounfour

Introduction

The major nations, as natural communities, are searching for new paths of development. Finland, as a leading innovative nation, is also challenged by such a project, especially due to the emergence of major challenges, as a result of the dynamics of evolution of world capitalism. In this paper, I advance that community, associated with a redefined dynamic capability, is a stimulating concept for developing a perspective to a very unique and singular national innovation strategy.

Why Communities Now?

I suggested considering the issue of communities (Bounfour, 2003, 2005, 2006) as an important perspective for understanding the dynamics of the new capitalism, especially with regard to intellectual capital building and leveraging. Indeed, from a systemic perspective, two parallel and potentially conflicting regimes can be put forward: the transaction regime and the community regime.

We should be aware of this: the issue of communities is not only a theoretical one. If, which I do think, communities become one of the dominant spaces for “social-economizing”, then ad hoc policy instruments have to be defined and implemented on a more or less large scale. For Finland specifically, two questions are posed: is the dominant socio-economic system in the country consistent with communities’ rules of governance? And secondly, if the community is becoming an important way of organising activities, then to what extent will Finland’s next “innovative offer” integrate such a development? More specifically, to what extent do the ICT cluster in Finland integrate the community aspects, beyond what Nokia hand held terminals supply. Are the next generation of products and services sufficiently adapted to the community dimension? These are among the concrete questions that this paper will address at the very strategic level of the country. But before going further into the debate on the type of supply, let’s define the two types of regimes referred to earlier: the transaction regime and the community regime.

The transaction regime is the still dominant nature of capitalism. Companies and collective systems are mainly driven by efficiency requirements, and therefore, any individual or collective action is appraised from this perspective. To be schematic: return of invested resources is the Alpha and Omega for the assessment of any decision and behaviour. The shareholder value is the archetype of such reasoning.

I suggested introducing this concept of community regime due to the deep crisis we all observe in our societies with regard to “recognition mechanisms”. It is clear, at least since the mid 1970s, that there is a steady and deep tendency towards “fragilising” socioeconomic links within the traditional vertical corporations. Outsourcing and networking activities, as well as the emergence of the services economy, create a deep change in the way individuals see the others, their organisations and therefore how they recognise themselves. This crisis – i.e. transition- in recognition mechanisms is an important stimulating perspective for understanding the whole dynamics of capitalism. From a microeconomic point of view, to a certain extent, the market – and transactions – is now the dominant forms of exerting activities. But because of that, individuals are now orphans and seek new spaces for recognition – hence the relevance of the concept of community. By community, we should understand here: *a set of individuals for whom relationships are governed to different degrees by “Recognition mechanisms”*. By recognition mechanisms, we should understand the way individuals are inserted in different spheres of socialising. This is one of the roles of the family. But on a more global scale, this is the role of nations. Finns recognise others Finns as Finns without any necessary mechanisms of explication. So do French, Germans and Japanese. Recognition mechanisms also played an important role in large corporations during the 1960s and 1970s. IBMees recognised other IBMees as IBMees. So did people from Alcatel, and other large organisations. But now, due to outsourcing, networking and continuous restructuring, such mechanisms of recognition are deeply challenged. To be more explicit, individuals are now orphans, hence their search for new spheres of recognition, hence again the importance of communities as a substitute, or at least as a complementary way of endowing individu-

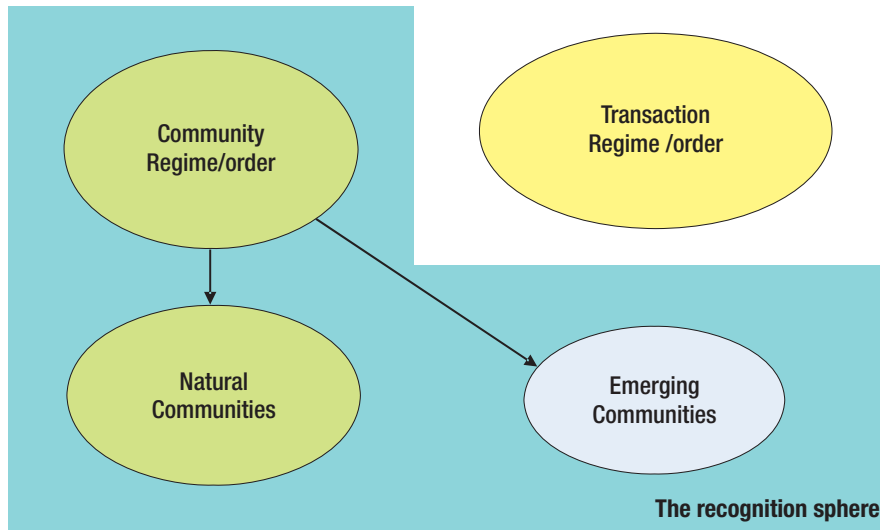


Figure 1. Transaction regime versus Community regime

als with what has been named by Giddens, the “ontological security”. Recognition is therefore an important concept for understanding the dynamics of socio-economic systems on a very global scale. Recognition mechanisms refer also to the set of policy, managerial and technical instruments developed by organisations in order to respond to the individual search for recognition. To a certain extent, as Honneth underlined it, the problem we faced in France with suburban areas can be explained by strong weaknesses in social recognition of people living in these areas, by the whole French society.

This concept of recognition, which has been developed by Hegel (in his earliest work at Iena), and recently more elaborated by French and German philosophers (Ricoeur, Honneth), is central to the elaboration of a critical theory of present and future societies. Finns are Finns because they recognise others as Finns. They form a natural community. A natural community is therefore a set of people who spontaneously recognise the others as fellows. Villages, cities, regions, and nations are natural communities, shaped by history. Beside these forms of communities, I will distinguish new forms of communities that emerge basically due to the transformation of large companies, as well as to the emergence of new forms of social-economising outside the traditional vertical form.

I will then distinguish three forms of emerging communities:

- *Constrained Communities*, i.e. communities to which individuals belong basically because transactions costs are so high for them under the transaction regime. Typically such a regime can be – and is already- per-

fectedly applied to a network of experts or knowledge gurus. These individuals exchange contacts, references, websites citations and reputation, in order to increase their market power. They do so because they do not have the choice, nor do they have the resources and time to afford concluding contracts.

- *Quasi-Organic communities*. These communities, while leaving under the transaction regime, develop norms and behaviours corresponding to those of communities as they have been defined by Tönnies. This is specifically the case for Linux Community in the IT areas, but also for other communities of knowledge exchange. This also might apply to local communities such as districts, cities or villages.
- *Organic Communities*. These are communities continuously under development. Under the organic communities, there is no distinction between the individual and the group.

Dynamic Capabilities of Communities

The concept of dynamic capabilities has been centric in the strategic literature over the last ten years. Several scholars put forward the argument that beyond the importance of intangible resources – as they have been emphasised by the Resource-Based View – dynamic capabilities are the adapted lever for articulating and combining intangibles in a very idiosyncratic (e.g. specific) way. For Finland specifically, the way this country should articulate its present and future intellectual capital resources should be necessarily unique, in

order to ensure a real sustainable competitive positioning for the country. Such uniqueness will be ensured not only via a singular vision, but also via the deployment of ad hoc processes, named here dynamic capabilities of Finland.

As Eisenhardt and Martin (2000) made it clear, dynamic capabilities are basically a set of processes dedicated to articulating resources and competencies within companies. Some examples would be Toyota’s system for product development or Cisco’s approach to competence building and articulating around its web site, or Nokia’s development processes. In short, dynamic capabilities might be defined as: “The ability to integrate, build, and reconfigure internal and external competencies to address rapidly changing environments” (Teece, et al. 1997). From this definition we can derive a hypothesis: in modern economies, the way companies and organisations articulate their resources and competences should evolve continuously, otherwise these organisations will lose their competitive advantage. In other terms, the present (static) capabilities should be continuously challenged and changed... in order to build ad hoc dynamic capabilities. This is also important for understanding the relationship between different pieces of intellectual capital (Stähle & Stähle, 2006).

If we agree on this perspective, then the message for policy makers at high level becomes very clear: beyond your view of what your country’s positioning and specialisation should be in the future, you have to define a set of capabilities to be bundled together, in order to make your vision happen in concrete terms. These capabilities are considered to be dynamic, which means that they should allow combining continuously existing or forthcoming nation’s tangible and intangible resources in a very unique way; and they should also be eligible for continuous change. This is basically what the literature says. And this concept is very stimulating for business and policy action, at a very high

strategic level. For Finland specially, as I will suggest later, this concept is of particular relevance for the present time, where the country is searching for a new path of growth and development.

But from a community perspective, this definition should be extended by taking into account the *recognition dimension* as well as the *emotive dimension* (especially with regard to collective positioning in space and time). Therefore, from a community perspective, a dynamic capability can be defined as: “the ability of a community to build its architectural and mental resources, consisting in the way these communities continuously renew and articulate their transaction and recognition spheres, according to their members (and leaders) beliefs and positioning in space and time”. It is this ability that will allow Finland to find a new path for development, beyond its existing intangible resources and capabilities. This refers naturally to the emotive dimension of performance, which creates a sense of collective action and allows building congruence with world demands and expectations in terms of products, services, images and societal modelling. The emotive dimension is often underestimated in economics due to the dominant rational point of view. But emotion is what creates the sense of action for a community in a given time and space. For Finns, as a community, such an emotive dimension will be essential in adequately seizing world demands and expectations in terms of products, services, and societal modelling. This point will be developed later. But we can already anticipate that opportunities can be realised in at least for three clusters – ICT, biotechnology and environmental products – as well as for other components of Finland’s “innovative offer” (social modelling for instance).

Therefore, via dynamic capabilities hence defined, we should understand the way a community (a Nation such as Finland for instance) articulates its present intellectual cap-

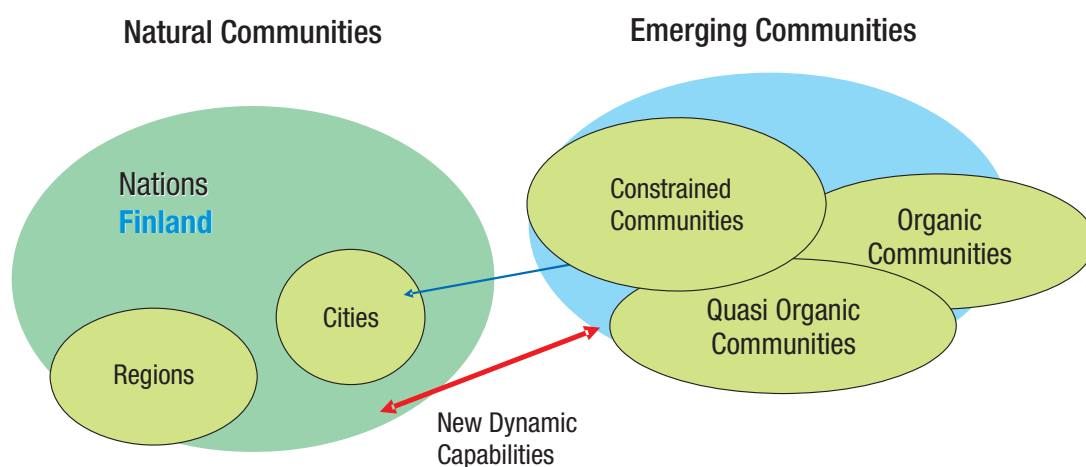


Figure 2. The articulation between Natural communities and Emerging communities

ital with pieces of intellectual capital not yet developed. By doing so, a Nation defines its “innovative offer” to the rest of the World and therefore its specific development path. Naturally, such capabilities have to be defined by taking into account the dynamics of a global company, and its global issues. Indeed, it is by confronting the World’s expectations and emerging demands (the demand side), with existing or emerging intellectual capital of a nation (the supply side), that such capabilities can be better identified, and henceforth, implemented (section 4).

If we agree on this definition, then the question of public policy can be considered from a different angle. In particular, one of the most important issues will concern the way public policy – and more generally national strategies- will articulate natural communities (nations, regions, cities) strategies with emerging communities’ governance (figure 2). It is the role of dynamic capabilities to proceed as such. For instance if we consider the clustering process now adopted by most of nations (the 66 already labelled “competitiveness clusters” in France), it is clear that such a clustering will only succeed if its conditions for functioning are clearly in congruence with the rules of governance of the knowledge economy, including, among others, those related to emerging communities. For instance, what type of recognition mechanisms should be implemented for the development of new communities works within and around clusters? For those countries, without a strong outside communities (such as Japan and Finland, two countries without strong scientific and business diasporas), how to define alternative instruments which will facilitate leveraging the intellectual capital circulating worldwide? If instable – e.g. spot-communities become largely active on a global scale, how a nation can contribute to these communities and get the best from them in terms of knowledge, but also in terms of branding products and services?

New entrepreneurship and new IPRs rules might also be needed. In concrete terms, this means clearly that if the vertical organisation (the large multinational one) is no longer the dominant way of doing business, and if a great share of jobs in the service economy will be located in self-employed, or in in-between organisations (different jobs with different status), a nation like Finland should take the lead of prototyping new work rules, as well as new IPRs rules, designed to reinforce individual intellectual capital, and respond to his “ontological security” constraint.

Dynamic Capabilities of Finland

In concrete terms and taking a broader perspective, how can we define a bundle of dynamic capabilities as being the most relevant for Finland new path of development? In particular, these should be the set of processes the most suitable, on the one hand for seizing global opportunities, and

on the other hand for helping to leverage Finland intellectual capital in a very unique way. How to define such capabilities? How to articulate them?

To answer this question, I would suggest tackling this issue from a broader sense, by taking a double perspective: (1) A *supply-driven perspective*, by which I will consider the type of resources and competences are key ingredients of the present Finland’s intellectual capital and also what type of congruence can be established with some of the global issues; (2) a *demand-driven perspective*, by considering some global issues and the type of “innovative offer” Finland can provide to the rest of World and subsequently, the set of bundling of capabilities needed to be primarily addressed by Finland policy agenda.

Finland’s Dynamic Capabilities from a Supply-Side Perspective

If we consider the issue of dynamic capabilities from a supply side, and based on existing information of Finland’s performance, we can already deliver some statements. Naturally, these are preliminary, and should be re-assessed, in more details. But, by considering things from outside, we can express some preliminary remarks (Table1). Let’s consider this table from Finland’s supply-side perspective, and see to what extent they might be consistent with some of the global emerging issues.

First of all, as Finland is endowed with highly educated human resources, there is a clear fitness with global issues for ad hoc innovation. Needs for innovative capabilities might be sector specific, but also cross-sectoral. Indeed, developing cross-sectoral capabilities is critical in order to take advantage of possible opportunities on a global scale, but also to make the knowledge more fluid within and around Finland as a community. For instance, entrepreneurship (business, policy and academic among others) capabilities, venture capitalism capabilities, or external (outside Finland) communities’ building and leveraging capabilities, are not sectoral specific.

Therefore, the existence of highly educated human resources, and the fact that science and technology are of high value within Finnish society, are important intellectual assets of the country. In a global innovative market, Finland’s supply for innovation will certainly meet global demands for innovative offer. In other words, as there are strong expectations for innovations on a global scale (in products, services, processes, organisational & societal modes of works and living), Finland, will certainly be in a position to meet some of these expectations.

Naturally, this will not be a spontaneous process, and dynamic capabilities should be built for that.

As for clusters – as deposits of knowledge and outputs – we can, at this stage, state that at least three clusters are consistent with some global issues:

1. *ICT and related applications* appear as of high potential, taking into account some global issues. There should be strong needs for ICT solutions, artefacts, especially due to the emergence of strong social tendencies:
 - a. The dominance of individualism (and nombrilism) in societies. Indeed, most of the developed societies (at least from a Western view), are becoming dominantly individual-centric. The increasing in divorces (and its corollary, outsourcing, in the business area) attests to the emergence of individual-centric economies and societies. These individuals become now orphans. On one hand, they need knowledge and technology artefacts for their daily work, life and more generally “nombrilism assurance” (this is already quite obvious with our children, the next working generation for 40 and more years). On the other hand, since they will suffer from being orphans, they will be forced to enter into different forms of communities (in order to benefit from a certain degree of recognition).
 - b. the importance of ICT networks and infrastructure for communities (constrained communities, quasi-organic communities mainly);

- c. the ageing population, which necessitates a full design of the whole ICT infrastructure (see the “ubiquitous network” concept in Japan);
 - d. urban design and management (for communication and security purposes, among others).
2. *Water, paper and forest* will probably have an open space opportunity for providing innovative supply, taking into account the global environmental issues, as well as the issue of water supply and management in many parts of the world. Is there any innovative thinking coming from Finland on this very critical issue?
 3. *The Biotech cluster* is certainly an important one, at least if we consider the issue of ageing population. There is certainly a complementary between ICT and biotech, in this context.

Finally there are *ad hoc* (non sectoral specific) *intellectual assets* which make the Finland model very unique: equity principles, social cohesion, and systematic innovative processes (and an integrated policy view of knowledge, since the innovative capabilities of Finland are not only taken in charge by specialised technocrats, but involve the whole stakeholders: Citizens, via the Parliament, the Government, Business, Academic & researchers and Media), and the absence of corruption. These are specific assets that need to be leveraged in a bundle of intangible resources, to be offered to the rest of the World. They might contribute to building ad hoc responses under the community regime,

Table 1. Intangible resources, Clusters of specialisation of Finland, in regard of some global issues

| Resources, Competences and Clusters of specialization of Finland | Some Global issues |
|--|--|
| <ul style="list-style-type: none"> • Highly educated Human resources • ICT and related applications • Water, Paper & Forest • Mechanical • Biotech • Image & Reputation • Equity, Community, Systematic & policy integrated innovation • No Corruption | <ul style="list-style-type: none"> • Innovation ad hoc knowledge/ • Taylorised knowledge • Individualism and “nombrilism” • Community/governance structures • Urban design, Urban management • Ageing population • Water resources • Energy • Environmental issues • Alternative social models |

and therefore to moderating some of the violent rules underway in most of the economies under the transaction regime. For instance, to what extent can Finland innovate in social-modelling in such a way that this creates a meaning for other countries in the world? This naturally needs using and reinforcing existing pieces of excellence (education, innovation, absence of corruption, etc.), but more importantly going beyond these pieces in a very unique way. For instance, how to articulate the community dimension with the individual dimension in societies? What type of innovations can be elaborated and more importantly implemented in societies in order to ensure sustainability, in a context where states and nations are fighting for their existing “slack” (due among others to social & budgetary constraints)? By doing so, Finland will certainly contribute to building alternative social models, for which there are certainly great expectations from the rest of the world.

Finland’s Dynamic Capabilities from a Demand-Side Perspective

Let’s then consider this problem of congruence, from a demand-side perspective, as a double checking exercise. We can then start by considering three blocks of issues: global societal functionalities, global societal issues and institutional governance. Those indicated in blue are the most relevant for Finland’s ICT cluster, which seems to me as of particular relevance for consideration here (figure 3). The question here is that of ensuring a full congruence between Finland’s intellectual capital and these global tendencies and issues.

1. Global societal functionalities

By societal functionalities, I mean here the expectations of societies, especially Western ones, regarding their daily functioning. If we consider carefully what is underway both at the demand and supply sides, we can at least derive four major functionalities, the last three being of particular relevance for ICT: innovativeness as a value and practice, short-termism behaviour (more and more actions, at least in Western-societies, are very short-term oriented: work contracts, financial performance – see the dominance of quarterly reporting for listed companies, and social links – families, etc.) of people (due to the pre-eminence of the space of flows, as Castells already stressed it); real-time connectiveness (we can already observe this with our children and young students) and real-time surveillance (this should be one of the major issues, especially under the pressure of the insurance industry, but also as an implicit or even explicit demand of societies).

2. Global societal issues

These global issues are already known. We can at least point out some of those with particular relevance here, in order to consider what type of dynamic capabilities should be considered for building by Finland. Among those issues of particular relevance: Ageing population; rise of insurance expectations (see previous section), environmental issues, crisis in recognition mechanisms within companies and societies (and emergence of orphan individuals); people migration; knowledge migration (via diasporas and other forms of quasi-organic communities); water management and disease.

In face of all of these issues, the Finland model has to be reassessed in order to determine its level of relevance and congruence with these global issues. Such a reassessment should be undertaken at two related levels: the Finnish society as whole, and the offer of Finnish innovation to the rest of the World. It is clear that the more Finland is innovating at this level, the more its model can be attractive to other nations, groups, and individuals. For instance, how to increase innovative capabilities of Finland in a situation of ageing population? What kind of social links, products and services should be supplied to seniors? How to take advantage of their knowledge? On another note, can Finland, for instance, leverage and fertilize intensively its existing knowledge with external knowledge in universities, research centres etc. in a very unique way? Can Finland offer to the world specific solutions aiming at solving the question of water supply in specific areas? How about environmental issues? How about peace? How about corruption? (Are there specific reasons to be considered by other countries, beyond reinforcing norms of control, as the Sarbanes-Oxley Act requires it, or the World Bank is doing it in some targeted developing countries)? For all of these issues, there are strong expectations on a global scale.

3. Institutional governance

As for the institutional governance, taken from a broader perspective, we can already make some preliminary statements of the trends.

- The State, in its traditional centric form is in crisis (and its slack is decreasing) due to the spreading of the transaction regime, including in the public sector (even in some of the “Hobbesian” spheres such as security, education, e.g. those spheres of activities ensuring the existence of peaceful links among individuals in societies and communities). Indeed, most of the public organisations are now submitted to performance rules originating from the business area, and even the notion of public good – such as education, health – is now challenged, due notably to financial burdens most of the States are

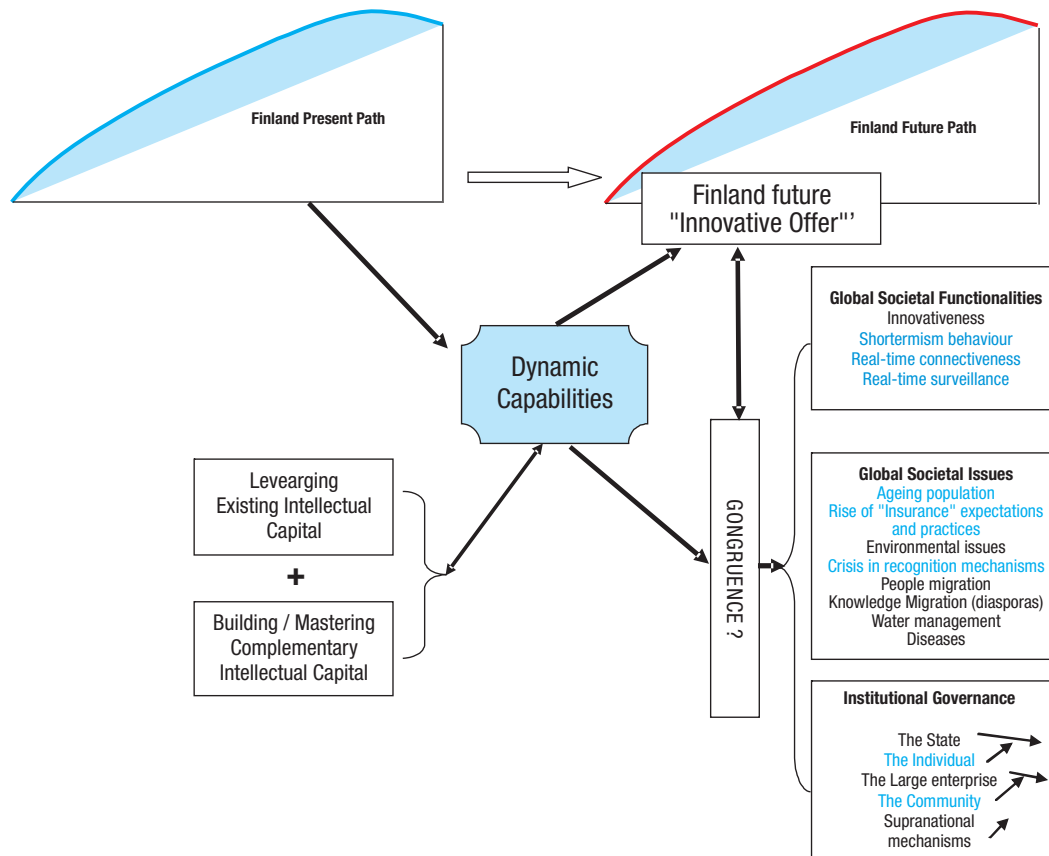


Figure 3. Finland's future path – the "Innovative Offer" (a tentative)

now facing. This is also related to the decrease in social recognition links as mentioned earlier. Naturally, this is a general statement, that needs to be moderated, taking into account the context of nations (Europe, Asia, North & South America, among others);

- Large vertical corporations are already seeing their power and attractiveness as decreasing. They are no more recognised as major spheres of recognition and security ensuring;
- The individual is becoming centric as well as – correlatively – the community (because individuals do not support being orphans);
- Supranational mechanisms for global issues regulation will increase. Only these mechanisms will allow tackling global issues such environmental, peace and even criminal ones.

Here again, we can expect Finland providing a unique "innovative offer" to the rest of the World. There will be certainly strong expectations for such an offer. Such an innovation might consist in the business areas in developing new ways of articulating large corporations' activities (such as Nokia

and others) with small or individual centric structures, or in implementing new legal instruments for intellectual assets (with or without IPRs) for communities and individuals. It might also consist in creating new governance instruments for communities inside Finland, as well as encouragements for those to be established outside; it might finally lie in contributing to the emergence of new global governance rules at the international level, via a real practice (such as in the environmental area), or through a support to ad hoc actions (peace troops and conflicts solving); or via the proposal of new rules of governance.

Figure 3 summarises the rationale for defining a new path for Finland, taking the demand-perspective as a starting point. By adopting such an approach, Finland should be in a position of defining an "innovative offer" to the World, by searching congruence between its present and its developing intellectual capital with these global trends and expectations. Such fitness will be ensured by defining a vision for Finland, but also via the selection of ad hoc dynamic capabilities, as defined earlier. These need now to be more specified in terms of contents and articulation mode.

Finland's New Path: A Bundle of Dynamic Capabilities

Considering these two perspectives – supply and demand – we can already establish some of points of strengths and weaknesses for dynamic capabilities that need to be considered for the future (Table 2). These capabilities have been selected, based, among others, on the diagnoses expressed in reports recently published on performance of Finland's national innovation system (see: further readings), as well as during the debate of the Helsinki Roundtable with the Prime Minister.

Dynamic capabilities with specific strengths for Finland might be listed as follows:

- *Community building*: Finns have a strong feeling of community belonging;
- *Renewability*: in Finland, science, technology and innovation are high societal values. Therefore, there is a high predisposal for renewability in resources, processes and outputs, especially based on an articulation between self-organised activities, and collective routines ;
- *Social cohesion and systemic innovation*: Finland is a horizontal society, with ad hoc processes dedicated to systemic innovation. Stakeholders (public, private) are clearly identified, and the parliament is playing a central role in it.

Besides these strengths, weaknesses can be derived from the analysis for specific capabilities. Among these:

- *Individual entrepreneurship*: this refers to the capability of a nation to generate sufficient entrepreneurs, especially in the business area. In Finland, there is a consensus on the existence of a weakness at this level, since most of educated people are attracted by employment within large organisations.
- *Venture capitalism*: venture capitalism is a general recognised weakness in Europe, as well as in Finland.
- *Individual-centric intellectual assets*: this capability is related to the one on individual entrepreneurship. Building individual intellectual capital assets should be a major requirement in the future, especially in a context dominated by weak social contracts, as well as by freelance jobs. IPRs framework should be revised in this context.
- *Diaspora (or alternative instruments) building* (this is also a major issue for countries with similar strategies such as Japan): building diasporas (or alternative forms of communities) is a major necessity for nations, for leveraging intellectual capital, “available” on a global scale. For Finland specifically – as for other nations such as Japan – there is clearly a weakness at this level (compared with other emerging nations such as China, India, among others). Therefore, alternative policy instruments should be found.

Table 2. Finland's position for critical dynamic capabilities from a global perspective

| Dynamic capabilities (processes for) | Finland's present positioning |
|--|---|
| • Individual entrepreneurship | • Weak |
| • Communities building | • A priori strong but what about individualism and free lancers in the service economy? |
| • Communities bridging | • Weak? |
| • Diasporas (or alternative instruments) building | • Weak, but alternative instruments might be found |
| • Diasporas leveraging | • Weak |
| • Renewability | • High |
| • New policy instruments (Individual IPRs versus corporate IPRs for instance; salaries versus non salaries revenues, etc.) | • Weak |
| • Attractiveness for the best in class (in between Intellectual capital) | • Weak |
| • Branding & Image building | • Weak to average |

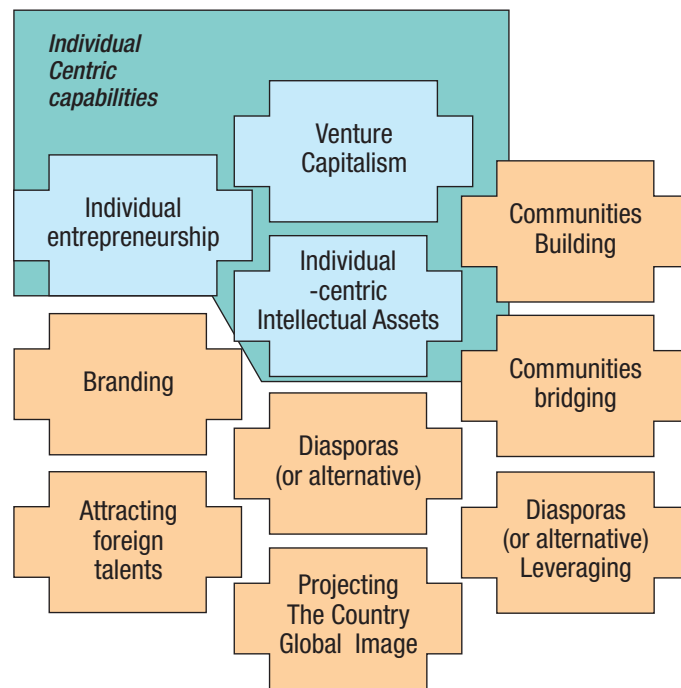


Figure 4. A bundle of dynamic Capabilities for Finland's new path

- *Diaspora (or alternative instruments) leveraging*: This capability is related to the previous one. Leveraging external communities is a necessity for Finland.
- *Community bridging* (especially from outside): beyond the issue of diasporas of Finns, the question of bridging communities inside and outside and benefiting from their knowledge is posed. By finding ways of bridging such communities, Finland will better leverage external intellectual capital, whereas at the same time projecting Finland's image and project it within and around these communities ;
- *Attractiveness of the best of class*: Compared to its neighbours (Sweden), Finland attracts fewer foreign immigrants, especially those with high education;
- *Branding*: If we except Nokia, branding Finland's outputs appears as weak. This should be reinforced. But as Prime Minister Matti Vanhanen underlined it, it is not that easy to brand intermediate outputs such as paper. Nevertheless, depending upon the content of Finland's future innovative offer, reinforcing the country's branding capabilities should be considered further.
- *Building and projecting the country's image*: Beyond branding lies the issue of image. Taking into account the requirements of the global context, and based on Finland's defined strategic capability, it is important to reinforce those dynamic capabilities related to the country's image building and projection, especially in fields such as environment, social-cohesion, innovativeness and renewability, entrepreneurship and education, and communities building.

These form the bundle of dynamic capabilities with particular relevance for consideration for policy and decision making in Finland (Figure 3). Those in blue are particularly individual-centric. The others are more community oriented.

Conclusion and Perspectives

In this paper, I have tried to put forward the argument that Finland is facing major challenges that need to be addressed in the process of defining its new path, especially due to the emergence of communities as a new way of work and socialising. In my view, this new path should be defined by confronting two complementary approaches. First, the demand perspective, which helps bringing to the forefront, some important global tendencies in terms of:

- societal functionalities (innovativeness, short-termism behaviour, real-term connectiveness);
- global societal issues (ageing population, rise in insurance expectations, migration, water management, diseases),
- and institutional governance (The decreasing role of the State, and correlatively the increasing role of individuals, communities and supranational mechanisms).

Secondly, the supply-side perspective, which takes as starting point the present poles of excellence for Finland. As far as individual clusters are concerned, it is clear from the

analysis that ICT, biotechnology and water/environmental clusters will fill important expectations from the demand side (emerging communities, individualism, urbanisation, water resources management). From a more cross-sectoral perspective, the analysis points out specific intellectual assets of Finland, with particular relevance: Equity, innovative and non-corrupted society, good image and reputation, and highly educated population, among others. The question then: how to make the bridge between existing intellectual assets and emerging global trends and issues? This is indeed the subject of what I named: Finland's "future innovative offer", i.e. its new path. To ensure the confluence between Finland's future innovative offer and World expectations, the country needs to pay attention to its dynamic capabilities, i.e. to the set of processes that allow to continuously combine its present and future intangible and tangible resources in a very unique way. From this preliminary analysis, it appears clearly that Finland is facing major challenges. The brief diagnostic of this paper leads to the identification of a bundle of ten capabilities that need to be particularly considered by Finland's policy makers: individual entrepreneurship, venture capitalism, individual centric intellectual assets, communities building, communities bridging, diaspora (or alternative) building, diaspora (or alternative) leveraging, Finland's branding, attracting foreign talents and projecting the country's global image. Those capabilities related to communities building as well as to entrepreneurship and paradoxically to individualism are of particular relevance, and this will certainly pose a problem of transition in Finland's present model (which is more collective than individual oriented).

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Appendix 1

Presentation of the Authors

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Dr. Aubert leads the World Bank Institute Knowledge for Development Program (knowledge economy studies and policy advice for developing countries). He also manages WBI offices in Paris and Marseilles.

Prior to joining the World Bank in 2000, Jean-Eric Aubert worked at the Organization for Economic Co-operation and Development (Directorate for Science, Technology and Industry), leading notably S&T country reviews and flagship publications. He has also acted as consultant for a number of international organizations including the European Commission and UN bodies (UNIDO, UNESCO, UNCTAD, UNU).

Jean-Eric Aubert, a French national, has a post-graduate diploma in Economics and a Ph.D. in Applied Mathematics from Paris universities. He has been responsible as author or editor of more than 30 publications and published a number of articles in science and technology policy, social sciences and cultural issues.



LEIF EDVINSSON

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Professor Edvinsson has been a key contributor to the theory of Intellectual Capital and has overseen the creation of the world's first corporate Intellectual Capital Annual Report. During 1996 he was recognised with awards from the American Productivity and Quality Centre, USA and Business Intelligence, UK, for his pioneering work on IC. In 1999 he was noted as Most Admired Knowledge Award on Knowledge Leadership. He was also awarded The KEN Practitioner of the Year 2004, from Entovation International, where he also is an E 100. In January 1998, Leif received the prestigious Brain Trust "Brain of the Year" award, UK. In 2006 he was also listed in a book by London Business Press, as one of *The 50 Most influential Thinkers in the World*. He is listed in Who's Who in the world. Also associate member of The Club of Rome. Cofounder and Chairman of *The New Club of Paris*, focused on the Knowledge Economy initiatives.

Professor Leif Edvinsson has his education from the University of California, Berkeley, USA, as MBA and Lund University, Sweden, as civilekonom. He is the author of numerous articles on the service management and on Intellectual Capital. In March 1997, together with Michael S. Malone, he launched one of the very first books on Intellectual Capital.

Leif is serving on the Board of Directors of several knowledge intensive enterprises including having served also on the boards of the Swedish Brain Research Foundation as well as for many years the Center for Molecular Medicine at Karolinska Institute, Stockholm, Sweden. Since 2000 he has been the Honorary Chairman of the UK based Henley College, KM Forum. Since 2000, he has been the world's first Professor (adjunct) at Lund University on Intellectual Capital. In January 2006, he was also appointed adjunct professor at The Hong Kong Polytechnic University.

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Professor Günther Koch is currently the Managing Director of the Central European Institute of Technology (www.ceit.at) and from time to time as a guest professor at the Danube University and as a consultant to governments, banks, industries, in specific software dependant industries. He is also active as a member of the board of the Association of the Austrian Software Industry (VÖSI).

Professor Koch unites several and even divergent qualifications in his person: entrepreneur, manager and scientist. His last appointment as a manager was in 1998 as the *CEO of the Austrian Research Centres (ARC), Seibersdorf*, Austria's largest research organisation employing some 1200 people in many different disciplines including material sciences, life sciences, information technologies, system research, medical technology, energy and environment etc. His first appointment in Austria was in the early 90ies, when he was invited to become a guest professor at the computer science faculty at Graz Technical University. From 1993 to 1997 he was the General Director of the *European Software Institute (ESI)* in Bilbao, Spain. After having been assistant professor at Karlsruhe University's computer science faculty from on 1975, he became founder managing director of a systems company specialising first in medical informatics in 1981 and later in automation and in software technology. In co-operation with Prof. Ursula Schneider; Graz he created the currently most widely used reference model for Intellectual Capital Reporting, first time applied at the Austrian Research Centres in 1999.

Koch, currently lives in Vienna and acts as the president of the Austrian Association for research in IT, works (part time) as General Secretary of 'The New Club of Paris'. He is member of the Board of the Fraunhofer Institute FIRST in Berlin, and he is affiliated with the Vienna-based Knowledge Management Associates / Academy / Association (KM-A) and its co-operation partner Execupery. He is an associate of the "Institute for Futures' Futures", now called THE KENOS CIRCLE, founded by the Santa Fe Institute's fellow John Casti in Vienna, specialising in foresight. He is an outspoken expert in defining and identifying intellectual assets in "brain organisations".



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Dr Ahmed Bounfour is graduated from the Institut d'Etudes Politiques de Paris and has a Ph.D in economics and strategic management from the Paris-Dauphine University. He was Associate Professor for Innovation Policy and Strategic Management at University of Marne-La-Vallée, East Paris, France (1994–2004). He was previously Director for high tech programmes within Euroconsult that included responsibility for space projects (telecommunications and earth observation) (1984–1994).

Ahmed Bounfour has conducted many studies of European industrial competitiveness, in particular for the European Commission (DG Internal Market, DG Enterprise, DG INFSO, DG Research), the European Space Agency, the Ministry of Industry (France), the Ministry of Telecommunications (France) and CNES. He contributed to, and/or led, several studies on European space industry competitiveness.

In the fields of intangible investment, Dr Ahmed Bounfour conducts research, as a part of a large view on industrial competitiveness and future socioeconomic systems development. He has developed a guideline for reporting and measurement of intangibles, the IC-dVAL® – Intellectual Capital dynamic Value approach.

He has published numerous papers on strategic planning and competitiveness, in academic as well as in professional journals. Ahmed Bounfour is a reviewer and Member of the Scientific Board for several journals in innovation, knowledge management and management science. He is the author of several books on intangibles' evaluation and management.

Appendix 2

The Program of the Round Table



THE NEW CLUB OF PARIS

Agenda for the Round Table for and with Mr. Matti Vanhanen, The Prime Minister of Finland

Helsinki, November 14th 2006

The goal of the Round Table is to consider the role and possibilities of Finland in a knowledge and innovation economy and bring up new dimensions to the national discussion. The Round Table consists of two kinds of activities, first of the short presentations by international and national experts, and secondly of an open dialogue between all the panellists.

The main lines of ideas and the results of the Round Table will be reported at the end of the year. The report will contain new openings for discussion, evaluation of the national innovation and knowledge policies and specific suggestions for politicians and decision makers.

In addition to Prime Minister *Matti Vanhanen* the panellists of the Round Table are

- *Jean-Eric Aubert*, Lead Specialist, World Bank Institute, New Club of Paris
- *Ahmed Bounfour*, Professor, University Paris XI, VP, New Club of Paris
- *Ulrica Gabrielsson*, Researcher, Member of Tutkas, Committee for the Future
- *Leif Edvinsson*, Professor, University of Lund, New Club of Paris
- *Katrina Harjuhahto-Madetoja*, Programme Director, Information Society Programme, Prime Minister's Office
- *Martti af Heurlin*, Deputy Director General, The Finnish Funding Agency for Technology and Innovation, Tekes
- *Kyösti Karjula*, Member of the Parliament, Member of the Committee for the Future
- *Timo Kekkonen*, Director, Confederation of Finnish Industries, EK and Chairman of Board, The Finnish Funding Agency for Technology and Innovation
- *Guenther Koch*, Professor, General Secretary of New Club of Paris
- *Mikko Kosonen*, Special Advisor, Nokia Group
- *Kalevi Olin*, Member of the Parliament, Chair of Tutkas, Member of the Committee for the Future
- *Markku Markkula*, Member of the National Committee for Knowledge Society Strategy of Finland, Director of Life long Learning Institute Dipoli, Helsinki University of Technology
- *Waltraut Ritter*, VP Knowledge Enterprises, Hong Kong, New Club of Paris
- *Paula Tiihonen*, Committee Counsellor for the Committee for the Future, Parliament
- *Pirjo Stähle*, Professor, Finland Futures Research Centre, Turku School of Economics, New Club of Paris
- *Markku Wilenius*, Professor, Finland Futures Research Centre, Turku School of Economics, Club of Rome

The Round Table Program 14.11.2006

10–12 **The main future changes of the knowledge societies and economies**

Markku Wilenius, Professor, Finland Futures Research Centre,
Turku School of Economics

Looking at Finland from outside: the key questions and main future challenges

Jean-Eric Aubert, Lead Specialist, World Bank Institute

Guenter Koch, Professor, General Secretary of New Club of Paris

12–13 Lunch

13–15 **Looking at Finland from inside: the core of our renewal capability**

Timo Kekkonen, Director, Confederation of Finnish Industries, EK and
Chairman of Board, The Finnish Funding Agency for Technology and
Innovation

Katrina Harjuhahto-Madetoja, Programme Director,
Information Society Programme, Prime Minister's Office

Kyösti Karjula, Member of the Parliament, Member of the Committee
for the Future (not attended)

15–16 **Possible path selections of Finland: the space and possible roles of Finland
in global competition**

Matti Vanhanen, Prime Minister

Leif Edvinsson, Professor, University of Lund (not attended)

16–18 **How to extract value from Finland's Intellectual capital**

Waltraut Ritter, VP Knowledge Enterprises, Hong Kong

Ahmed Bounfour, Professor, University Paris XI

Pirjo Stähle, Professor, Finland Futures Research Centre,
Turku School of Economics

19 Dinner at Hotel Palace

The Round Table is initiated by The New Club of Paris and organized together with Tekes, TEK and Tutkas. Moderator of the meeting is Professor Pirjo Stähle, and the venue is the Parliament House, cabinet A116.

Appendix 3

The Manifesto of “The New Club of Paris” On the Knowledge Society and Its Economic Foundations

Our society is undergoing a dramatic transition from the industrial & information age towards a new era of knowledge-based industries. This shift is associated with upheaval in the global economic structure, accompanied by far-reaching demographic shifts and a transformation of social systems.

- A major challenge of such change is that our economy is increasingly transforming into an “immaterial” economy which – as an instance, in the context of the so-called Lisbon-Barcelona Strategy of the European States – is described as a “knowledge based economy”.
- Indicators of this development are:
 - the new relation between material (e.g. manufacturing) and immaterial (e.g. service) economies;
 - the sharing of commonly available knowledge such as open source information, versus proprietary capturing;
 - the insight that global competition leads to fast relocations of entire economic branches such as software, media creativity, healthcare and “brain” industries; and
 - the radical change in work structure causing everyone to continuously change profession and type of employment throughout a lifetime, inducing lifelong learning and flexibility.
- The move towards the knowledge society and knowledge economy affects both the micro-economic and macro-economic dimensions. I.e. this change is entire and comprehensive. This move even does not preserve classic industries. Knowledge economy makes an impact on the value creation process, fundamentally altering the organization of work, creating new forms of borderless cooperation and intercultural exchange.
- Politics has recognized this change at best in its superficial wording, but not in its meaning. Standard slogans about competitiveness, maintenance and creation of workplaces, as well as safeguarding social standards, are the vocabulary of yesterday. The strategies propagated to recover from recessions are mostly lacking in imagination and the courage to enter into the new paradigms of the knowledge society and economy. In consequence, what’s also missing is a new, deeper understanding of leadership.
- We are aware that after a period - still to be protracted - of concerns about ecological challenges and environmental issues, once having been made aware by the “Club of Rome”, we now enter a phase of concerns about available and acquired knowledge, education, creativity, innovation and the paradigm of an “economy of the intangibles”.
- This means that the intellectual, social and cultural potentials should have a much higher priority. They are determinative for “Third Phase Industries” based on creativity, software, media, finance, services, etc. being more representative of today’s developed economies and producing more in value than traditional industries. They are of decisive importance to the development of all branches. Only through careful and sustainable utilization of the new, immaterial resources we will be in a position to better organize available materials and energy resources which will become increasingly in short supply.
- In a word: the “Ever More” of the current economic model of the Western industrial society has outlived its legitimacy. What matters are not mere survival strategies or is linear expansion, rather, a sustainable preservation and development of our prosperity. In order to master the future, we need more intelligent modes of farming and exploitations and a new balance between material and immaterial assets.
- Intellectual capital comprising assets in human abilities, structural, relational and innovation capital, as well as social capital founded on clear, practiced values such as integrity, transparency, cooperation ability and social responsibility, constitute the basic substance from which our future society will nurture itself.
- “The New Club of Paris” is an organization open to everyone who is qualified to make contributions by scientific work or who has their competence by engagement. It is an association of scientists and decision-makers dedicated to research and promotion of the idea of transforming our society and economy into a knowledge society and a knowledge economy. Moreover, as we are convinced that a healthy, well-maintained and integrated environment is a precondition for living and for quality of life, “The New Club of Paris” endorses a healthy, respected and high quality world of intellectual and cultural living based on knowledge.

- In public we address decision-makers, specifically in politics, to embark on the new knowledge paradigm and to engage in developing new strategies which go far beyond the repetition of, or variations on, “old recipes” to “make the future”. In the new understanding of the knowledge society & economy they will engage in a development driven by imagination, creativity and courage towards better intellectual, cultural and social conditions and towards a sustainable, dynamic economy.
- In practice we support all movements and projects towards better education (systems), more vivid innovation (systems) and better understanding of the imminent knowledge society and economy. We plead for higher investments in brains rather than bricks, thereby avoiding misallocations in investments and in channeling much too large sums into material subjects rather than into immaterial assets, such as the intellectual, social and cultural abilities of the people.

Paris, June 20th, 2005

Signed by all founder members of
THE NEW CLUB OF PARIS,
represented by its initiators

Leif Edvinsson, Chairman
Ahmed Bounfour, VP, Knowledge Platform
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