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## Regional and Innovation Policies in Finland – Towards Convergence and/or Mismatch?

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**Regional and Innovation Policies in Finland Â Towards Convergence and/or Mismatch?**

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3 Regional and Innovation Policies in Finland – Towards Convergence and/or Mismatch?  
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20 JAUHAINEN, J. (2007) Regional and Innovation Policies in Finland – Towards  
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22 Convergence and/or Mismatch?, *Regional Studies*, 41, 000–000. This article discusses  
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24 regional and innovation policies in Finland, with special attention focused on centres of  
25  
26 expertise, regional centres and Multipolis programmes. Traditionally, regional policy in  
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28 Finland supports populating of the entire country by providing equal access to welfare  
29  
30 regardless of local resources. Current innovation-oriented regional policies promote  
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32 larger urban areas by integrating them as regional clusters into the national innovation  
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34 system while promoting necessary innovation-supportive interaction within localities,  
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36 and by opening development into a global economy. Simultaneous implementation of  
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38 the goals of the traditional distributive welfare policy and new competitiveness policies  
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40 easily leads to a policy mismatch at the local level.  
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48 Regional policy      Innovation policy      Finland  
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## INTRODUCTION

The European Union (EU) is struggling to reach the goals of the Lisbon strategy: to become the world's most competitive area by 2010. In February 2005, the European Commission led by José Manuel Barroso stressed the importance of employment growth and productivity rise in the EU. The Commission insisted that investment in research and development, a well-functioning education policy, high technologies, innovations and strengthening of the common market are necessary for a more competitive EU, member states and regions (EUROPEAN COMMISSION, 2005).

The EU progresses slowly in implementing competitiveness strategies, but in several international evaluations Finland appears as the world's most competitive country. For example, the World Economic Forum (2005) ranked Finland 1<sup>st</sup> in information society, 1<sup>st</sup> in innovation, research and development, 1<sup>st</sup> in liberalisation, 1<sup>st</sup> in network industries, 1<sup>st</sup> in enterprise environment, 1<sup>st</sup> in sustainable development, 2<sup>nd</sup> in financial services and 3<sup>rd</sup> in social inclusion among the EU countries. Nevertheless, Finland is a small country in terms of population (5.3 million inhabitants, i.e. 1.1 % of the EU27) and economic resources (GDP 157,200 million euros, i.e. 1.5 % of the EU27). Furthermore, Finland places among the lowest of the OECD countries in attracting foreign direct investments (12,467 million euros) (OECD, 2005, 26).

Finland has a national strategy to organise an information society that includes production and use of high technology. The policies support a vision of a comprehensive

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2  
3 information society that territorially encompasses the whole country and its population  
4 (*SCIENCE...*, 2000; 2006; *INFORMATION...*, 2005). The Finnish innovation policy  
5 follows the definition of an innovation policy given by Lundvall & Borràs (1997, 37):  
6 promoting the development, diffusion and efficient use of new products, services and  
7 processes in markets and inside private and public organisations. For example, mobile  
8 phone penetration was very rapid already in the 1990s, and today over 90 percent of the  
9 population are mobile phone subscribers and over half use the Internet (ITU, 2006).  
10 However, there have also been challenges in the recent years. The explosion of the  
11 'Internet bubble' in 2000 ended the rapid progress in employment growth in the  
12 information and communication technologies (ICT), and Finland is not among the top  
13 countries in broadband distribution. In addition, the OECD (2005, 70) indicates that the  
14 use of ICT by SMEs "falls far short of the image of Finland as a leading 'Information  
15 Society' country." Nevertheless, Finland has met many of the criteria of the Lisbon  
16 strategy. The EC target of investing three percent of the national GDP into R&D by  
17 2010 was reached in Finland already in 2000, and it was 3.4 percent in 2005 – with the  
18 notable contribution of Nokia (STATISTICS FINLAND, 2006a).  
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43 In this article I discuss the development of regional and innovation policies in Finland.  
44 Firstly, I synthesise the evolution of the nationally designed regional policy and  
45 innovation policy until today. I argue that the regional and innovation policies were  
46 separate earlier, but since the 1990s, following the national authorities' focus on high  
47 technology, globalisation and competitiveness in economic policies, they have been  
48 converging. As empirical material I use regional development legislation in Finland  
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3 between 1966 and 2006, key documents of the Science and Technology Policy Council  
4 in 1990, 2000, 2003 and 2006, as well as earlier scientific reviews of the Finnish  
5 regional and innovation policies.  
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12 Secondly, I discuss the on-going regionalisation of the national innovation policy and the  
13 integration of innovation into the regional policy. As empirical examples I use the  
14 Centres of Expertise Programme, the Regional Centres Development Programme, and  
15 the Multipolis project. The traditional regional policy aims to maintain the whole  
16 country of Finland populated through a balanced regional structure that provides  
17 opportunities for welfare and growth regardless of the location (REGIONAL  
18 DEVELOPMENT ACT, 2002). These equal opportunities are also stressed in recent  
19 information society policies (*SCIENCE...*, 2006). However, at the same time the  
20 contemporary (innovation) policy aims to raise the competitiveness of large urban  
21 agglomerations, based on regional specialisation, clustering of economic activities and  
22 internationalisation (MINISTRY OF THE INTERIOR, 2004). There is a challenge in the  
23 integration of these two. Thirdly, I use northern Finland and the Multipolis high  
24 technology network as an example of controversies encountered in integrating regional  
25 and innovation policies in Finland. Finally, I raise issues regarding both the Finnish and  
26 international debates on regional and innovation policy evolution.  
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53 SUCCESS OF REGIONAL AND INNOVATION POLICIES  
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3 Several scholars in the 1980s (see FREEMAN, 1991; LUNDVALL, 1992; NELSON,  
4 1993) elaborated the concepts of innovation systems, i.e. how interaction leads to  
5 innovations over space. In the beginning, an innovation system meant the innovative  
6 capacity of national production systems. Such a nationally bounded innovation system  
7 was localised and promoted valuable capabilities and framework conditions not  
8 available to competitors abroad. In the early 1990s, globalisation and the need to  
9 enhance competitiveness turned the attention of national governments towards  
10 systematic understanding and applied use of innovation systems. It was possible to  
11 enhance national competitiveness by identifying and enhancing the core of the national  
12 innovation system, i.e. nationally specific interaction between the structure and  
13 institutions (LUNDVALL & MASKELL, 2000, 364). The European Commission and  
14 many countries were attracted by these observations and formulated their policies  
15 accordingly.  
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36 In the EU's structural policies for 2007–2013, significant is to improve local and  
37 regional competitiveness through innovations (HÜBNER, 2005). Regional and  
38 innovation policies are crucial for reaching the goals of the Lisbon strategy and for  
39 successful regional development. According to Lorenzen (2001, 164), regional  
40 development is dependent on localised and interconnected processes of technological  
41 development (innovation) and evolution of a range of social institutions (institutional  
42 learning). The ability to organise endogenous learning processes and create favourable  
43 resonance structures for policy learning determines the competitiveness of regions  
44 (BENZ & FÜRST, 2002, 22).  
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6 Evolutionary economics is increasingly used to conceptualise and organise regional  
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8 development by stimulating the diffusion of innovations and the emergence of  
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10 behavioural and institutional variety in an economic system. Important are traditional  
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12 structural development parameters, such as the composition of the production structure,  
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14 the size and knowledge level of the labour force, demand for certain goods and services,  
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16 the efficiency of market institutions and an efficient system of fiscal and non-fiscal  
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18 government regulations, but also dynamic relations between economic actors and their  
19  
20 environment. Development is a trajectory between 'path dependency' and 'selection',  
21  
22 referring to a local environment that channels new variety, enabling or constraining  
23  
24 favourable conditions for change. Constraining practices are inherited regional  
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26 structures, institutions and ideas that do not enable necessary changes. To prevent  
27  
28 negative development lock-ins, selections need to be made. However, these selections  
29  
30 are often based on trial and error, because in the current globalisation context the success  
31  
32 of regional development policies cannot be guaranteed. Nevertheless, a regional policy is  
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34 more likely to be successful when its policy objects are strongly embedded in the  
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36 surrounding environment (LAMBOOY & BOSCHMA, 2001, 115–128).  
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46 Innovation has taken a fundamental role in organising regional development. Innovation  
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48 is the basis for obtaining competitiveness by firms, regions and nations. Innovations  
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50 bring new opportunities to a territory in which innovation takes place or is implemented.  
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52 Several approaches explain the territorial features of innovation, such as innovative  
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54 milieu, industrial district, regional innovation system and new industrial spaces. These  
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3 approaches share the importance of innovation in regional development, but differ in  
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5 estimating the role of firms, institutions and other actors in the emergence of innovation  
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7 and the regional organisation of innovation. Some see institutions as enabling, others as  
8  
9 constraining. Regarding R&D, some underline the volume of investment, others  
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11 interactivity and learning (MOULAERT & NUSSBAUMER, 2005).  
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17 Under globalisation, the private sector and public authorities have to focus on keeping  
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19 not yet ubiquitous, immobile, localised capabilities and networking these capabilities  
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21 successfully (LUNDVALL & MASKELL 2000, 364). From the spatial perspective,  
22  
23 several innovation systems co-exist in the same area. Production, transfer and  
24  
25 application of knowledge are crucial for innovation systems, whether mostly at the  
26  
27 supranational, national or regional level. Systematic enhancement of such knowledge is  
28  
29 conducted through innovation policies. According to Cooke (2004, 2–3), a regional  
30  
31 innovation policy promotes the emergence and development of new products and  
32  
33 innovative enterprises in a certain territory. Interaction between actors and agents of  
34  
35 innovation is highly embedded, exclusive, and localised. It relies heavily on network  
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37 modulation in a milieu in which vibrant and active social capital exists. Production and  
38  
39 efficient use of intellectual capital is an intangible and reproducible resource, which  
40  
41 fundamentally depends on social capital. Therefore, regions and networks between  
42  
43 developers and users of innovations are fundamental, and regionalisation of a national  
44  
45 innovation system and policy is needed to foster innovations in regional development.  
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47 Based on evolutionary economics, Lambooy & Boschma (2001, 124–128) argue that  
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49 recommendable policies allow a variety of development paths that connect various parts  
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3 of innovation systems to stimulate learning and innovation. Embedding of policy objects  
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5 in the surrounding environment is important, because when local strategies deviate  
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7 considerably from the local context, the risk of policy failures increases.  
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12 According to Asheim & Gertler (2005, 298–308), regional aspects in innovation systems  
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14 can be viewed from three perspectives. Firstly, there is regionalised national innovation  
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16 system, which is functionally integrated in a national or a supranational innovation  
17  
18 system. It means clustering of large enterprises' or governmental research institutes'  
19  
20 R&D laboratories in planned science parks, often near traditional universities and  
21  
22 universities of applied sciences. Secondly, there is a territorially embedded innovation  
23  
24 system based on interaction within a particular region. Firms base their innovation  
25  
26 activity on localised learning processes stimulated by proximity in geographical, social  
27  
28 and cultural aspects, but not much on interaction with knowledge organisations. Thirdly,  
29  
30 there is regionally networked innovation system in which interactively learning  
31  
32 enterprises and organisations are embedded in a specific region. Regardless of the  
33  
34 differences in these three perspectives of the role of territorial inputs and outputs of  
35  
36 innovation, a combination of knowledge generation and exploitation is seen as a  
37  
38 necessity for commercially viable innovations, which in the long run generate growth.  
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40 An advantage for the emergence of commercially viable innovations is a shared vision  
41  
42 and networking between key agents, such as scientists, engineers, entrepreneurs and  
43  
44 venture capitalists. Supportive public and private sector co-operation is often significant  
45  
46 in generating existing and new knowledge. Publicly-funded research organisations  
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48 possess a highly absorptive financial capacity and have a broader emphasis on basic  
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3 research, whereas many leading specialised applied research centres are private. For  
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5 knowledge exploitation as well, significant is a combination of the public and private  
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7 spheres, which creates an institutional structure for innovations that arranges patenting,  
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9 licensing, spinout, incubation, financing and swift stock market flotation and allows the  
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11 active presence of venture capitalists (COOKE, 2004, 2–3).  
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18 In Finland, success in the above-mentioned ranking lists for global information society,  
19  
20 innovation and competitive economy does not mean that such success is territorially  
21  
22 even. The past ten years have witnessed particular growth in the population and  
23  
24 employment of the largest urban agglomerations, whereas the countryside and the  
25  
26 peripheral eastern and northern regions have declined. Polarisation of the regional GDP  
27  
28 per capita has increased, and in 2001 only three regions were above average (OECD,  
29  
30 2005, 14–20). The earlier regional convergence measured with the regional GDP per  
31  
32 capita changed into divergence during the deep recession and the recovery from it in the  
33  
34 1990s (PEKKALA, 2000; KAUPPINEN & KARHU, 2002, 276). In addition, regional  
35  
36 differences in R&D are over seven-fold, with the Helsinki region plays an overwhelming  
37  
38 role. There are notable regional differences in higher education, as well. For example,  
39  
40 the share of the population aged 25–54 years with a university degree is 39 percent (total  
41  
42 230,000) in the Uusimaa region close to Helsinki and 24 percent (total 8,000) in the  
43  
44 north-eastern region of Kainuu (OECD, 2005, 14–20). Furthermore, universities in the  
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46 Helsinki region have a much higher scientific impact than elsewhere. To summarise,  
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48 Finland is not as harmonious and equally developed a country as is often presented.  
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3 One key strategy in Finland is to pay more attention to the regional level in organising  
4 the knowledge-intensive society (*SCIENCE...*, 2003; 2006). Embedded regional  
5 specificities and untradable interdependencies within innovation-developing networks  
6 are capabilities not yet available to enterprises outside the regions. According to  
7 evolutionary economics, achieving an innovation in one enterprise or institution does not  
8 diminish the possibilities of other enterprises or institutions to reach innovations  
9 (KRUGMAN, 1998). Spreading the emergence of innovations spatially would create  
10 more even regional development while raising national competitiveness. However,  
11 achieving such balanced and even regional development is challenging even in Finland.  
12 The possibilities of policies depend not only on the current economic context, but also  
13 on the trajectory of trials and errors in past regional and innovation policies. Therefore, a  
14 careful analysis of the policy trajectory is necessary.  
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## 36 REGIONAL AND INNOVATION POLICIES IN FINLAND

### 37 *Early regional and innovation policies until the late 1980s*

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41 Regional policy is a rather old phenomenon in Finland. Already before the Second  
42 World War there was a plan to use natural and human resources efficiently in terms of  
43 the whole country. The immediate post-war development of regional policy was  
44 influenced by geopolitics. Besides economy, it was politically important that the whole  
45 country, including the peripheral eastern borderland and northern Finland towards the  
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3 Soviet Union, would be populated. The state promoted this expansion of human  
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5 activities to less developed areas and unified the country and its population. Agriculture,  
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7 including forestry, was supported by arranging small farms for war veterans, refugees  
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9 from ceded Karelia and others. Another method was to establish state-owned mass-  
10  
11 production factories in less developed areas, which had a labour force and natural  
12  
13 resources available. The key was to develop export-oriented industries (KEKKONEN,  
14  
15 1952). Later expansion of the welfare society created public sector employment in  
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17 peripheral municipalities and regional centres. Additional regional policy support was  
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19 targeted to declining rural areas. This was to prevent radicalisation of the inhabitants of  
20  
21 rural areas, i.e. their turning into supporters of the growing Communist Party.  
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29 In 1960 the labour force was equally divided between agriculture, industry and services,  
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31 but soon people started to move on a massive scale to industrialising towns: from the  
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33 north to southern Finland and Sweden. An institutional regional policy was started in  
34  
35 1966 when the first regional development legislation was approved by the Parliament,  
36  
37 which was motivated to constrain migration and to help less developed areas through  
38  
39 investment and tax exemptions. During the first (1966), the second (1970) and partially  
40  
41 the third (1975) period of regional development legislation, regional policy was a matter  
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43 of regional subsidy transfers and of supporting national economic growth by means of  
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45 industrial location policy – the latter influenced by the then common growth pole policy  
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47 (VARTIAINEN, 1998; PEKKALA, 2000). In addition, the functional central place  
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49 theory was applied to organise service, administration and the transport network. Since  
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51 1975 one can really talk about regional policy in Finland with comprehensive goals for  
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3 the whole country (HAUTAMÄKI, 1999, 2–3). Large-scale industrialisation of  
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5 peripheral regions was the goal, where local employment was created in factories, in  
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7 subcontracting industries and in additional services for the new population. State  
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9 ownership of mass-production manufacturing allowed such policy implementation.  
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11 Legislation specified the objectives and procedures of regional policy, the  
12  
13 responsibilities of different authorities, implementation of planning procedures, and  
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15 measures for implementing the projects in different administrative sectors.  
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22 Regional policies in Finland were designed with an eye on the policy practices of  
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24 Finland's more developed neighbour, Sweden. However, the situation started to change  
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26 in the latter 1970s and early 1980s due to the differing economic context. The fourth law  
27  
28 (1981) brought some decentralisation in regional development decision-making and  
29  
30 investments, as well a focus on a variety of policy tools for qualitative change in the  
31  
32 regions. However, despite the need for restructuring, the strategies of concentration  
33  
34 prevailed in industrial policy. Regional policy was part of the national economic policy,  
35  
36 and the national government promoted balanced regional development through it. The  
37  
38 economic structure of regions was taken into account in the allotment of subsidies. The  
39  
40 fifth law (1988) stressed the importance of equality in regional development. About half  
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42 of the population lived in an area covered by regional subsidies. Information society was  
43  
44 mentioned for the first time in this context. Gradually, more emphasis was placed on  
45  
46 small and medium-sized enterprises, development by projects and renewing the national  
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48 economic structure (VARTIAINEN, 1998; HAUTAMÄKI, 1999, 3–4; PEKKALA,  
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50 2000). However, substantial changes took place only in the early 1990s.  
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6 Compared with the regional policy, the innovation policy is a newer phenomenon. The  
7  
8 current national innovation policy in Finland can be traced to the science and technology  
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10 policy (STP) initiated during the 1960s when, according to the key scholar of the Finnish  
11  
12 STP, Lemola (2003, 78), the machinery of the innovation policy was quantitatively  
13  
14 expanded. Lemola (2004, 271–272), has found five elements that promoted STP in the  
15  
16 early years. Firstly, higher education was developed and regionalised from the late 1950s  
17  
18 until the 1970s. This signified the establishment of several new universities, including  
19  
20 that of Oulu, today the second largest. Secondly, in 1963 the science policy council was  
21  
22 established, which later became the Science and Technology Policy Council. This  
23  
24 council is fundamental in national innovation matters today, especially in their political  
25  
26 dimension. Thirdly, in 1967 the Finnish National Fund for Research and Development  
27  
28 Sitra was founded to promote industry-related STP. Sitra is today the major funding and  
29  
30 supporting authority for technology-related research and debate. Fourthly, a reform of  
31  
32 national scientific funding was conducted at the turn of the 1970s. Namely, the new  
33  
34 Academy of Finland was established and the old Academy, which was less controlled by  
35  
36 the national authorities, was dismantled. This led to more direct involvement of national  
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38 education policy in scientific research. Fifth, a policy doctrine was published in the first  
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40 STP programmes in the early 1970s. The emphasis on basic research in STP changed  
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42 into technology orientation already in the early 1980s. This was facilitated by the  
43  
44 founding of the National Technology Agency Tekes (later the Finnish Funding Agency  
45  
46 for Technology and Innovation) in 1983, the most important funding authority for  
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48 applied technology development. However, until the late 1980s, the aim was to create a  
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3 framework for STP to increase investment and internationalisation in R&D, especially in  
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5 microelectronics and information technologies (LEMOLA, 2003, 78).  
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10 *Transformation of regional and innovation policies during the 1990s*  
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15 Internationalisation and globalisation significantly influenced regional and innovation  
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17 policies in the 1990s. The evolution of the Finnish regional innovation policy is linked to  
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19 major macro-economic changes and EU accession. In the past 20 years Finland has  
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21 changed from a rather closed society with a national economy to an economically open  
22  
23 country with advanced technology. The roots of this change are in the late 1980s, when  
24  
25 the national government relaxed the national financial policy and true  
26  
27 internationalisation started (SKURNIK, 2005). Soon after that Finland's major trading  
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29 partner, the Soviet Union, collapsed and other major export partners declined, leading  
30  
31 into a deep economic recession in Finland, with unemployment over 17 percent. In  
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33 1990–1993 the national GDP fell by 9.5 percent (KANGASHARJU & PEKKALA,  
34  
35 2004, 256). Necessary economic restructuring and a strong currency devaluation in the  
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37 early 1990s led to a fast recovery and growth in labour productivity in the latter 1990s.  
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39 The latter was facilitated by the rise of the ICT cluster, whose competitiveness was  
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41 improved by the early opening of national competition in ICT and the launching of  
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43 technology-supporting higher education programs in the 1980s (OECD, 2005, 9–10).  
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53 In 1990 the Science and Technology Policy Council in Finland led by the Prime Minister  
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55 published the *Review 1990 – Guidelines for Science and Technology policy in the 1990s*  
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3 for the new STP (*SCIENCE...*, 1990). This fundamental document was based on a  
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5 review of the contemporary findings and paradigms of evolutionary economics in which  
6  
7 innovations were the core for development – to stimulate the development and diffusion  
8  
9 of innovation in the national economic system (see LAMBOOY & BOSCHMA, 2001,  
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11 119). According to Lemola (2003, 84; 2004, 273–274), the review influenced the  
12  
13 conscious organisation of the national innovation system. The key policy and  
14  
15 programme designers and makers fostered the role of R&D and higher education for  
16  
17 industrial and economic development. The result was a systematic identification of the  
18  
19 key features of the Finnish innovation system: development and utilisation of new  
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21 knowledge and know-how (aggregate factors), a national research system (targeting  
22  
23 higher education), a supportive atmosphere for innovations (facilitating co-operation and  
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25 interaction between the key actors), and internationalisation (enhancing simultaneous  
26  
27 national creation of innovations).  
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36 The formation and direction of a national innovation policy and national innovation  
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38 system are well evident in the policy statements of national governments. Accordingly,  
39  
40 innovation, technology, competitiveness of the nation, knowledge-based development  
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42 and flexibility were mentioned as keywords of the government policy statement a few  
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44 times in the late 1980s. These keywords came into politics from the main  
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46 internationalising technology, paper and metal enterprises in Finland, including Nokia  
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48 and (Stora) Enso. In addition, in the early 1990s the national government and the key  
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50 stakeholders in economic policy organised training courses for decision-makers in which  
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52 contemporary innovation-related theories, practices and policies were analysed. By the  
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3 early 2000s, these keywords became common in national government policy statements  
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6 (KANTOLA, 2006).  
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10 Although the national innovation system was the core of early policies, ideas were  
11 almost simultaneously presented for regionalising the knowledge-intensive society by  
12 supporting regional centres of expertise, which would become globally competitive  
13 through specialisation in technology (PAASIVIRTA, 1991). Government promotion of  
14 regional strategies targeted towards a knowledge-intensive society facilitated the  
15 penetration of innovation-related issues into a nationally designed regional policy  
16 (LEMOLA, 2004). The national government 1991–1995 mentioned regional  
17 competitiveness in its policy statement. Soon two major stakeholders in the Finnish  
18 economy, Sitra and the Research Institute of the Finnish Economy Etlä, commissioned  
19 an extended project on the competitive advantage of industrial clusters in Finland. In  
20 1993 this regionally focused cluster framework was adopted in the *National Industrial*  
21 *Policy for Finland* (MINISTRY OF TRADE AND INDUSTRY, 1993). There were nine  
22 clusters, of which the ICT sector was one (HERNESNIEMI ET AL., 1996). The role of  
23 Michael Porter's (1990) famous book, *The Competitive Advantage of Nations*, was  
24 significant to the design of this cluster policy. Later the cluster approach was used to  
25 design the Finnish innovation system, and Porter visited the country, as well. Lemola  
26 (2003, 87) states that it was the national government that decided to allocate research  
27 funding to support the development of national industrial cluster programmes. This  
28 improved co-operation between cluster members, increased knowledge flow, spill-over  
29 and networking, and deepened the co-operation between and within public and private  
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3 sector agents involved in industrial clusters and innovation activities (PENTIKÄINEN,  
4 2000). Later this “triple helix” model, i.e. active co-operation between national  
5 government policies, universities and enterprises was fostered and the national  
6 innovation policy strengthened the competitiveness of national clusters (PRIHTI *ET AL.*,  
7 2000).  
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18 As indicated, internal pressure towards an economically more accountable regional  
19 policy came from the deep economic recession the country experienced in the early  
20 1990s. Public investment in regional development was diminished and inefficient  
21 transfer of subsidies was altered. The sixth regional development law (1994) changed the  
22 principles of the national regional policy. After a long period of centrally designed  
23 regional growth principles driven by passive state investment , endogenous regional  
24 development and innovation-driven development emerged, indicating a paradigm shift  
25 (OECD, 2005, 43). Beneficial development was to be achieved through locally initiated  
26 projects implemented with the programming principle. Two regional policy goals were  
27 still traditional, namely development of living conditions and ensuring the availability of  
28 basic services everywhere in Finland and expansion of the infrastructure necessary for  
29 regional development. The remaining aspects were new: renewal of regional production  
30 structures, improvement of companies’ operating conditions and job creation, and  
31 strengthening of regional economies and the skills of the local population (AALBU *ET*  
32 *AL.*, 1999, 30). In addition, from then on innovations, technology development,  
33 competence improvement and competitiveness have been ordinary regional policy  
34 keywords.  
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6 External pressure towards a national regional policy came from the need to adopt the EU  
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8 standards before Finland joined the EU in 1995. The main responsibility in formulating a  
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10 regional development strategy, i.e. a long-term regional plan, programme and  
11  
12 implementation, was transferred to new 19 regional authorities consisting of unions of  
13  
14 local authorities, in addition to the autonomous Åland islands. The ability of these  
15  
16 regions to carry out strategic tasks associated with the innovation policy improved. The  
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18 fundamentals of such an innovation-based regional policy were to increase knowledge and  
19  
20 competencies, innovations, new technologies, and related education and training. These  
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22 were combined with the traditional regional policy goal of maintaining the whole  
23  
24 country populated. It resulted in a programme-based policy to strengthen the  
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26 competitiveness and learning capacity of every region (VARTIAINEN, 1998;  
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28 HAUTAMÄKI, 1999, 6–7; PEKKALA, 2000, 15). The devolution of power from the  
29  
30 former state provinces was not comprehensive, because in 1997 the national government  
31  
32 established for different regions altogether 15 Regional Economic and Employment  
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34 Development Centres, which were responsible to various ministries. These centres  
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36 became significant gatekeepers of national and EU funding for the regions.  
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46 From the perspective of the innovation policy, Finland's joining the EU took place at a  
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48 moment when innovativeness was strengthened in the EU's regional and structural  
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50 policies. Furthermore, urban areas and networks were acknowledged as promoters of  
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52 economic and employment growth at the European level (EUROPEAN COMMISSION,  
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54 1995; 1998). This led to more careful attention to urban areas and urban policies in  
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3 Finnish regional development – a topic not implemented so far (OECD, 2005, 49–57).  
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5 The globally early attempt to unify traditional industrial policy and separate science and  
6  
7 technology policies into one united national innovation policy in Finland helped in  
8  
9 dissociating from the negative inherited lock-ins of low-tech mass production,  
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11 agriculture and passive regional policies that the country had experienced so far.  
12  
13 Therefore, the current position of Finland among the advanced technological countries is  
14  
15 at least partly a result of the national government policies, despite Miettinen's (2002)  
16  
17 claim that it was also a coincidence, especially the enormous success of Nokia.  
18  
19 Nevertheless, as a result of this technology-promoting transformation, the value of  
20  
21 industrial production grew by 50 percent in 1995–2000, while the sector's employment  
22  
23 growth was 8 percent (STATISTICS FINLAND, 2006a). In 2004 the ICT sector  
24  
25 accounted for 20.6 percent of the national export value, or about 10 percent of the GDP,  
26  
27 of which 4 percent by Nokia alone (YLÄ-ANTTILA, 2005, 8). High technology became  
28  
29 a topic frequently discussed in the media and most often related to business with Nokia  
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31 mobile phones (JAUHAINEN, 2007).  
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#### 42 *Current issues in regional and innovation policies*

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46 Today the Finnish innovation policy is based on a national innovation system divided  
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48 between the public, private and non-governmental sectors (Figure 1). The most  
49  
50 important public actor formulating the institutional innovation system and innovation  
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52 policy is the national government. The Science and Technology Policy Council, led by  
53  
54 the Prime Minister, is significant in issues of policy content. Obviously, the Parliament  
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3 with its political parties is important due to its legislative powers. The most important  
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5 ministries linked to the innovation policy are the Ministry of Education, the Ministry of  
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7 Trade and Industry and the Ministry of the Interior, but other ministries are involved, as  
8  
9 well. Crucial public technology and research financing institutions are the National  
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11 Agency for Technology and Innovation Tekes, the Finnish National Fund for Research  
12  
13 and Development Sitra and the Academy of Finland. Other organisations, such as the  
14  
15 Finnvera funding agency, play a minor role. The key actors in creating innovations and  
16  
17 implementing innovation policies are universities, universities of applied sciences and  
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19 research institutes, including the State Technical Research Centre VTT. In the private  
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21 sector one finds scientific associations, private foundations, research institutes, large and  
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23 small enterprises (including the key actor, Nokia) and other corporate agents, such as  
24  
25 venture capitalists involved in R&D. At the local level there are municipalities,  
26  
27 technology and science parks, business parks and incubators that implement regional and  
28  
29 innovation policy programmes. According to Miettinen (2002), in the Finnish context,  
30  
31 the national innovation system relates to both academic research and the applied  
32  
33 innovation policy implemented through the triple helix approach mentioned earlier. The  
34  
35 OECD (2005, 58) also states that the triple helix interaction model contributed to the  
36  
37 rapid penetration of the national innovation system into practice. Formulation of a  
38  
39 national innovation policy in Finland has been very pragmatic (LEMOLA, 2003, 90).  
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51 ## Figure 1. National innovation system in Finland.  
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3 Knowledge, learning, expertise, research and innovation are seen as crucial to Finland's  
4 competitiveness, so they continue to be emphasised in the national innovation system  
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6 (*SCIENCE...*, 2003, 20–21). In a small country, formalised scientific knowledge does  
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8 not constitute the most important source of economic growth (LUNDVALL &  
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10 MASKELL, 2000). Recently, there has been increasing emphasis in Finland on  
11  
12 understanding innovations as social processes. Innovations are influenced by a broad  
13  
14 societal network consisting of national and regional R&D organisations, education  
15  
16 organisations, funding authorities and venture capitalists, technology transfer, politics  
17  
18 and habits, costumes, routines, laws, etc. Important is the interaction between these  
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20 innovation actors.  
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29 In the early 2000s two major issues concerned the Finnish national innovation system:  
30  
31 its broadening into social innovations and its regionalisation (*SCIENCE...*, 2000;  
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33 *SCIENCE...*, 2003; *INFORMATION...*, 2005). The Finnish innovation system is  
34  
35 comprehensive, but political and even practical decision-making is still strongly  
36  
37 concentrated. Most key public actors are located in the Helsinki region. The Prime  
38  
39 Minister's Office (2004) has also noted the disparity between innovation organisations.  
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41 Attention is paid to networking between the key agents in innovation and also on co-  
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43 ordinating policies with direct or indirect influence on the national innovation system  
44  
45 (LIEVONEN & LEMOLA, 2004, 55). Nevertheless, regionalisation of the innovation  
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47 system and policy has not been addressed, despite the heated political debate on the  
48  
49 regional reorganisation of technology agencies and funding in the early 2000s.  
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51 Regionalisation of some innovation system actors, such as universities of applied  
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3 sciences, university centres and other research institutions has started. This fosters  
4 functional integration of regionally based clusters into the national innovation system.  
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6 This is what Asheim & Gertler (2005) call a regionalised national innovation system.  
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12 Lundvall & Maskell (2000, 365) point out that the state facilitates accumulation,  
13 reproduction and protection of valuable social capital that is fundamental for the  
14 comparative advantage of nations and sub-national regions. Due to limited financial and  
15 material resources in Finland, the national innovation system concentrates on activities  
16 in which the necessary volume and quality can be reached. Besides techn(ological)  
17 innovations, the Science and Technology Policy Council includes social innovations –  
18 without defining them – into the current core of the national innovation policy  
19 (*SCIENCE...*, 2003). Another key actor, SITRA, launched a “Social innovations,  
20 renewal capacity of the society and economic success: towards the learning society”  
21 project in 2002. This project defines social innovation as “those reforms of regulation  
22 (laws, authorities), politics and organisational structures and models of action that  
23 enhance the performance of society”. The economic and social success of a society is  
24 seen as being dependent on its capacity to implement structural reforms, which derive  
25 from the mental and cultural abilities of the society to be reformed. This enhancing of  
26 national capabilities can be economic or social (HÄMÄLÄINEN & HEISKALA, 2004,  
27 10–11). Nevertheless, the main actors in product innovations are enterprises, which  
28 achieve innovations in interaction with society. Despite the strong state guidance in  
29 innovation and technology development, over two-thirds (69.1 %) of total R&D  
30 investments in Finland are carried out by private enterprises and one third alone by a  
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3 single enterprise, Nokia (STATISTICS FINLAND, 2006a). However, in the early 2000s  
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5 globalisation has become an increasingly significant reference in the Finnish innovation  
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7 and regional policies, in their strategies and practical implementation, as well as due to  
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9 out-sourcing of various innovation-related activities from Finland to abroad.  
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18 CONVERGENCE AND/OR MISMATCH OF REGIONAL AND POLICIES IN  
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25 In recent years there have been attempts to discover the speciality of the Finnish way of  
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27 making an innovation policy. In fact, Manuel Castells has become a regular guest at  
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29 several formal and informal meetings regarding the topic in Finland. As a result, Castells  
30  
31 and Himanen (2001) named this significant support for comprehensive and distributive  
32  
33 knowledge-based social policy the “welfare information society”. However, on the other  
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35 side of this policy is the aim to make Finland globally the most competitive economy.  
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37 Obviously, macroeconomic policies matter here, but so does the regionalisation of the  
38  
39 innovation policy. To that end the national government and regions have started to  
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41 promote larger competitive urban agglomerations through various regional and  
42  
43 innovation policy instruments. This attention to urban agglomerations and innovations  
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45 was facilitated by Richard Florida (2002), another key expert whose books were  
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47 translated into Finnish and who was an invited lecturer of Finnish regional and  
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49 innovation policy actors.  
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3 A regional dimension of innovation matters exists in the nationally-designed innovation  
4 and regional policies in Finland. As mentioned, in the design of the national innovation  
5 system, attention has been paid to regionalising it since the early 1990s. Practices for a  
6 regionally networked innovation system (see ASHEIM & GERTLER, 2005) have also  
7 emerged. The contemporary regional policy is a programme-based policy for  
8 strengthening the competitiveness and learning capacity of each region, maintaining a  
9 balanced regional structure and safeguarding a service structure everywhere  
10 (REGIONAL DEVELOPMENT ACT, 2002). There are four major regional policy  
11 programmes, of which two are more traditional (the Rural Policy Programme, the Island  
12 Development Programme) and two (the Centres of Expertise and the Regional Centres  
13 Development programmes) are more innovation-oriented.  
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32 Although simple in strategies, successful convergence of the regional and innovation  
33 policies is difficult in practice. In Finland, the Ministry of the Interior in co-operation  
34 with other ministries and regional councils is responsible for the formulation of national  
35 targets for regional development that the national government decides on. The seventh  
36 regional development law (2002) focuses on strengthening the competitiveness of the  
37 regions. The national government's first regional development target indicates this well,  
38 namely improving the competitiveness of regions in the global market by strengthening  
39 specialisation and promoting the information society (OECD, 2005, 44–45). The  
40 guidelines are designed to strengthen the regional innovation policy, support the use of  
41 expertise outside regional centres and allow the whole country to make use of funding  
42 allocated to technology and expertise (MINISTRY OF INTERIOR, 2005b). These tasks  
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3 and guidelines are again an endeavour towards regionalising the national innovation  
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5 system.  
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10 In the implementation of innovation-related policies, the smallness of Finland matters.  
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12 Resources for basic and applied research are tight, the amount of key experts of core  
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14 technologies is rather small and the variety of social capital is limited. At the same time,  
15  
16 the national innovation system internationalises in an open society such as Finland.  
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18 Studying the Nordic countries, Hanell *et al.* (2002) noted how regional policy is  
19  
20 diverging into regional cohesion policy and regional development policy. The former  
21  
22 enhances welfare and resource redistribution, favouring less-developed regions, and the  
23  
24 latter promotes economic growth across all parts of the country (OECD, 2005, 104).  
25  
26 However, this divergence is stronger in Finland after competitiveness became the  
27  
28 fundamental task. Goddard *et al.* (2003, 29) claim that the strong national focus on the  
29  
30 innovation system means Finland has one national innovation system and several local  
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32 systems, but no true regional innovation systems.  
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#### 41 *Centres of Expertise Programme*

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46 The most significant example of convergence of the regional and innovation policies in  
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48 Finland is the Centres of Expertise Programme (CEP) launched in the mid-1990s. Since  
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50 1994 the number of Centres of Expertise (CoE) has varied from 8 to 22, covering all  
51  
52 regions of Finland (Figure 2). The CEP has become an actor that implements regional  
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54 innovation and industrial policies (*HUIPPUOSAAMISESTA ...* 2003, 8, 21). The idea of  
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3 the programme was discussed already in the mid-1980s, and it was officially proposed in  
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5 1991 by Anssi Paasivirta (1991, 82–84, 101, 154), the appointed evaluator of the Finnish  
6  
7 regional policy. He proposed that the key Finnish urban agglomerations should be  
8  
9 developed into locations for internationally competitive enterprise activities. To  
10  
11 accomplish this there was a need for universities, technology centres, enterprises,  
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13 information and communication technology projects, high-quality living environments,  
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15 provision of services in English, international marketing of the expertise centres, etc.  
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17 (LIEVONEN & LEMOLA, 2004, 106).  
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24 The CEP focuses on a few growing urban agglomerations with universities, specialised  
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26 research institutes and a stock of related industries. In the early 2000s the CEP included  
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28 18 localities and 45 fields of expertise focused on internationally competitive activities.  
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30 Despite Finland's success in ICT, only three CoEs dealt precisely with ICT. In 2007–  
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32 2013 the number of CoEs was 21, with 13 clusters. Besides health, welfare,  
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34 environmental and energy technologies, thematic fields include tourism, experience  
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36 industry, nano- and microsystems and future materials, intelligent machines, forest  
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38 industry future, housing, food, sea, etc. Some fields are based on immobile localised  
39  
40 capacities, but often the aim is to promote public-private innovation-supportive co-  
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42 operation. National funding for the CEP in 2006 was 8.2 million euros (MINISTRY OF  
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44 THE INTERIOR, 2006).  
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53 The CEP pools local, regional and national resources to utilise world-class expertise in  
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55 selected, internationally competitive fields in the region. New knowledge-intensive  
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3 business is created to improve the competitiveness of enterprises. According to the  
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5 Ministry of the Interior (2005), the CEP fosters regional strengths, specialisation and co-  
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7 operation between the various CoEs. The CoEs “establish the prerequisites for the  
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9 creation and commercialisation of innovation; launch co-operative projects between the  
10  
11 research sectors and industries; continuously strengthen and modernise top-level  
12  
13 expertise in the region; and promote the development of creative and innovative  
14  
15 environments.” The CEP can be defined as a programme-based national regional policy  
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17 that focuses on innovations in accordance with the regional development law.  
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24 The CEP is heavily based on public knowledge generation and exploitation institutions.  
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26 It utilises international high-level knowledge and expertise for entrepreneurial activities,  
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28 improves development resources, and creates new employment opportunities in the  
29  
30 regions. Such expertise is based on strong, developing research, education and business  
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32 activities located in the region, including product and service innovations. In regional  
33  
34 development the CEP helps localities to make strategic choices in innovation policy  
35  
36 (*HUIPPUOSAAMISESTA...*, 2003). In addition, the CoEs help the regions to exploit  
37  
38 national and EU R&D resources. By doing this the CEP supports the formation of an  
39  
40 institutional regional innovation system (see COOKE, 2004, 4).  
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48 The central authorities provide the basic public funding for the CEP. In 1994–1998,  
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50 public state funding for the programme was 14 million euros. In 1999–2002, 903  
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52 projects were carried out within the programme, with total funding of 148.7 million  
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54 euros, of which basic state funding was 20 million (*HUIPPUOSAAMISTA...*, 2003). The  
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3 CoEs use the latter funding to co-ordinate programmes, prepare projects and provide  
4 spearhead projects with seed-stage funding. The requirement for receiving basic state  
5 funding is that the regions also contribute to financing. Based on the proposal submitted  
6 by the committee, the national government decides on how to regionally allocate basic  
7 CEP funding.  
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17 The CEP has been received positively by the national government, the European  
18 Commission and many EU member states (MANNINEN, 2004). Despite the general  
19 positive evaluation of the CEP (*HUIPPUOSAAMISTA...*2003), Kauppinen & Karhu  
20 (2002, 274) state that in the short run, the growth centres are unable to spread positive  
21 spill-over effects to surrounding areas. In addition, the earlier large number of CoEs  
22 meant that only a few of them have had an internationally competitive knowledge base  
23 and enterprises (PIKKUJÄMSÄ *ET AL.*, 2005). In fact, the early stage of the CEP seems  
24 have relied on a territorially embedded innovation system. Expansion of the CEP in the  
25 early 2000s seemed to rely on the idea that this embedded and localised innovation  
26 system could be integrated into the national innovation system. The results from 1999 –  
27 2006 indicate that with the CEP was generated 13,000 new jobs, 29,300 jobs were  
28 maintained and 1,300 new enterprises emerged (MINISTRY OF THE INTERIOR,  
29 2006). The reform of the CEP for the period 2007–2013 means that this integration was  
30 not successful enough. However, since the selection of CoEs for the CEP is based on  
31 competitive bids by the localities, the national authorities still have the aim that each  
32 selected CoE supports national competitiveness and is integrated into the national  
33 innovation system. Bidding and selection is also a way to promote desired institutional  
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3 learning in the localities and allow national authorities to hold a significant position in  
4 enabling and constraining regional formation of an innovation system. However, party  
5 politics is involved in the selection, so the number of CoEs is higher than their  
6 performance.  
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### 12 13 14 15 16 17 18 *Regional Centre Programme* 19

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22 The CEP is deliberately targeted towards a few larger urban agglomerations, so the  
23 broader national regional policy goals demand an additional policy tool to further  
24 regionalise innovation-related activities. To focus on smaller regional centres with lower  
25 innovation capabilities, the national government launched the Regional Centre  
26 Programme (RCP) in 2001 in accordance with the seventh regional development law.  
27  
28 The RCP aims to develop a balanced network of regional centres in every Finnish  
29 region, enhance the international competitiveness and innovativeness of Finland and its  
30 regions, and use all available resources efficiently (MINISTRY OF THE INTERIOR,  
31 2005). The total funding for the RCP was 8.34 million euros, i.e. on average under  
32 300,000 per regional centre in 2005.  
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48 The RCP is implemented in 35 urban regions with 257 municipalities, which provide  
49 service and employment for their immediate hinterland (Figure 2). Most localities are  
50 small, creating a particular need to focus on their strengths, expertise and specialisation.  
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52 The RCP has five roles, depending on the sub-regional characteristics and the  
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3 implementation method of the programme. Firstly, the RCP as a *strategic umbrella*  
4 means systematically and simultaneously focusing on several development aspects.  
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6 Secondly, the RCP as a *promoter of sub-regionalism* means strengthening the sub-  
7 regional co-operation structures and modes. Thirdly, as an *extensive programme* the  
8 RCP is implemented broadly to enhance the added value of the region by co-ordinating  
9 functions and projects. Fourthly, the *new development aspect* signifies that the RCP's  
10 goal is to generate a new field of industry and expertise in a region with already existing  
11 strong sectors. Fifthly, the RCP is also an *additional instrument and resource* for other  
12 regional development work (MINISTRY OF THE INTERIOR, 2005). The goals for the  
13 period 2007–2010 emphasise enterprise-led development strategies, specialisation,  
14 creation of an attractive environment for innovations and action, enhancement of  
15 national and regional innovation tools and modes and partnership between the public and  
16 private sectors and within the public sector at various spatial levels. National funding for  
17 the RCP for 2007 is 8.0 million euros (ALUEKESKUSOHJELMA... 2006).  
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39 The RCP has been criticised. According to the evaluations, the central themes in 2001–  
40 2005 were closer sub-regional co-operation, commitment of the municipalities and  
41 partnership between central co-operators, regional councils and regional administrative  
42 authorities. The RCP intensified the formation of regional co-operation strategies and  
43 co-operation among the public sector authorities in selected urban regions. Networking  
44 has been limited in some regional centres, but in others co-operation between  
45 enterprises, research and education organisation has increased. In general, networking  
46 with the surrounding region has been poor. It seems that the national authorities have  
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tried with the RCP to facilitate the transformation from a territorially embedded to a regionally networked innovation system. Another criticism is the vagueness in promoting the real innovation potential of regional centres. The RCP has not been able to facilitate key strategic selections of the involved localities to deviate from the lock-ins of negative path dependency and to promote added value in innovation-oriented institutional learning. This is partly due to small programme funding. However, it is impossible to know the impact of the RCP exactly, because there are many other similar development programmes taking place (VIRTANEN & VALOVIRTA, 2004, 61–62; MINISTRY OF THE INTERIOR, 2005a; OECD, 2005; ALUEKESKUSOHJELMAN... 2006).

In the early 2000s several localities took part simultaneously in the CEP and the RCP, resulting in overlapping and confusion, project mismatching and wasting of resources (VIRTANEN & VALOVIRTA, 2004, 61–62). In 2007 the RCP has more national orientation in its co-operation activities. However, such a focus is a challenge to creating long-term employment growth based on competitive innovations. Also, networking of localised innovation capacities is even more challenged due to the heated debate regarding on-going municipal reform in which the national authorities are pushing towards territorial amalgamation based on the daily labour area. This has destroyed some started co-operation practices of the RCP.

*Multipolis project*

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3 In the early 2000s there were seven centres of the RCP and three of the CEP in northern  
4 Finland, which is a very challenging area in terms of innovation and high technology. It  
5 covers a territory of 155,100 square kilometres, with 0.7 million inhabitants, i.e. on  
6 average 4.6 persons per square kilometre. The only major functional urban region  
7 (FUR), Oulu, has 210,000 inhabitants, and population growth is concentrated there  
8 (+22.9 % in 1990–2005). In addition, the Oulu FUR is the only area in which the number  
9 of jobs has grown since 1990. The most declined areas lost almost every fourth person  
10 and more than every third job in the same period. Northern Finland has two universities  
11 and five universities of applied sciences, with 38,000 students (MINISTRY OF  
12 EDUCATION, 2005; STATISTICS FINLAND, 2006b). The area hosts very few  
13 specialists, a very small local market and long distances between regional economic  
14 development actors.  
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34 One CEP centre is the Centre of Expertise of the Oulu Region (CEOR). It focuses on  
35 information technology and wellness technology, strengthening the Oulu FUR  
36 internationally in these fields. Information technology includes telecommunications,  
37 electronics, software, content production and media, with 10,900 jobs and 274  
38 companies with a total annual turnover of 4,200 million euros in the region. Wellness  
39 technology consists of medical technology, biotechnology and environmental  
40 technology, with 6,400 jobs and 214 companies with a total annual turnover of 660  
41 million euros in the area (CITY OF OULU, 2006).  
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3 The CEOR is a spatially tightly networked regional innovation system (see COOKE,  
4 2004, 14) encompassing local, regional, national and supranational levels. Competence  
5 in the Oulu area comes from both basic and applied research in the public and private  
6 sectors, including the large research centre of Nokia. The co-operation of the innovation  
7 system is active and there are many stakeholders involved, such as associations, a  
8 development forum and industry clubs. Funding originates from government agencies,  
9 enterprises, banks and venture capitalists through various agreements, such as the Oulu  
10 Growth Agreement (OGA). The OGA was a voluntary measure and regional strategy for  
11 2000–2006 with the aim of promoting spearhead projects amounting to 300 million  
12 euros for growth in employment (+6,000 jobs) and turnover (+1,500 million Euro) in  
13 five technology fields. The agreement was signed by all the major actors in the Oulu  
14 area (CITY OF OULU, 2006). However, the national downturn in ICT in the early 2000s  
15 and problems in successful project internationalisation meant that the goals were not  
16 fully achieved.  
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39 In addition, since 2000 the CEOR has funded and promoted a spatially wider regional  
40 innovation system, the Multipolis project. Multipolis connects high technology  
41 enterprises, regional developers, and higher education and research institutes located all  
42 around northern Finland (Figure 2). There are 137 high technology enterprises and 116  
43 other enterprises outside the Oulu area, mostly located as clusters in technology centres  
44 in 14 localities. The goal of Multipolis is to maximise the utilisation of technological  
45 know-how in northern Finland and to expand the technology-related expertise and  
46 knowledge of the Oulu FUR to elsewhere in the north. The concrete aim set in 2000 was  
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3 to improve the competitiveness and knowledge-base of technology enterprises and to  
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5 create 15,500 new jobs in high technology (MULTIPOLIS, 2004).  
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10 Multipolis is a project set up to regionalise the national innovation system by focusing  
11 on high technology, which is one key national economic cluster. Many public and  
12 private actors of the national innovation system are involved in the strategic and  
13 operational implementation of the project – from funding to administration. They  
14 address Multipolis as a tool for sharpening existing key technologies to make them  
15 globally competitive and commercially viable. However, some regional and local  
16 authorities in northern Finland see Multipolis as a traditional regional policy tool for  
17 promoting employment in the localities in which it is implemented (JAUHAINEN,  
18 2006).  
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34 Multipolis as a policy initiative has been received positively by the national government  
35 and the European Commission, and there are plans to implement the concept also  
36 elsewhere in Finland (MANNINEN, 2004). The very idea is promising: a high  
37 technology network in a peripheral area that simultaneously raises national  
38 competitiveness and creates local employment. However, studied in detail, quite a few  
39 enterprises involved in the Multipolis project have received poor benefits from it. Most  
40 enterprises saw Multipolis as very important or important as a channel for new  
41 information, as a social network and for co-operation with other enterprises  
42 (JAUHAINEN, 2006). The impact on turnover, employment and competitiveness is  
43 much smaller than planned. In fact, in 2006 the employment growth target was reduced  
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3 to one tenth of the original. It is very difficult to simultaneously regionalise an  
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5 innovation system by supporting its internationalisation and global competitiveness and  
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7 maintain the traditional aims of welfare distribution of the Finnish regional policy within  
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9 the same project. Even trying seems to flatten the results, as Multipolis indicates.  
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15 ## Figure 2. Main innovation-related regional policy initiatives in Finland in 2007.  
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## 20 21 22 CONCLUSIONS 23 24 25 26

27 Innovations are crucial for countries that cannot compete with low labour and production  
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29 costs or with a large domestic market. Finland is such a country: small in population and  
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31 natural resources and geographically peripheral. Nevertheless, in several international  
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33 rankings Finland's economy is among the most competitive. The conventional  
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35 explanation is the early emphasis on a national innovation system and policies,  
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37 significant investment in high technology R&D and constant improvement of the  
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39 comprehensive education system. In all, Finland has been receptive to regional and  
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41 innovation theories from the 1960s growth pole and regional welfare policies to the more  
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43 recent cluster and regional innovation systems. The country followed these policy trends  
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45 until the 1980s, but nowadays many claim that Finland is a trend-setter in current  
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47 regional (and) innovation policy practice.  
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3 In fact, Finland took early moves towards a comprehensive innovation policy. The  
4 contemporary keywords of innovation, technology, knowledge and competitiveness  
5 appeared in the annual reports of the main internationalising Finnish enterprises in the  
6 1980s, and they were subsequently used in the national government's statements and  
7 guidelines for development policy (KANTOLA, 2006). The Finnish innovation policy  
8 was organised in the early 1990s, leaning on the Lundvallian concept of a national  
9 innovation system and on the Porterian cluster model covering the whole country  
10 (LEMOLA 2003, 82, 89). The policy was based on a systematic review of these  
11 concepts and models and it was formulated even before or simultaneously with the  
12 publication of Porter's (1990), Lundvall's (1992) and Nelson's (1993) key books. In the  
13 early 1990s attention was also paid to regional clusters in the national innovation system.  
14 The design of the Centres of Expertise programme, the most well-known Finnish tool of  
15 regional innovation policy, was influenced by the prominent concepts and theories of the  
16 mid-1980s as well as the early development of the information and communication  
17 technology sector in Finland. The national innovation policy and regionalised innovation  
18 system were implemented from the early 1990s onwards.

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43 From the national perspective, Finland is now on the watershed between past legacies  
44 and future alternatives. Traditionally, regional policy in Finland supports populating of  
45 the entire country by providing equal access to welfare regardless of local resources.  
46 Such a tradition has its roots in the early 20<sup>th</sup> century, in safeguarding the eastern border  
47 against a possible enemy, in exploiting the few natural resources available, such as forest  
48 and water power, and in unifying the Finns among themselves and to the national  
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3 territory. During the past ten years new national innovation and regional policies have  
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5 been implemented in Finland under globalisation. The Centres of Expertise and the  
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7 Regional Centres programmes promote the integration of regional clusters into the  
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9 national innovation system while promoting necessary innovation-supportive interaction  
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11 within the localities, and opening development into the global economy. In the new  
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13 national policies one can find a continuation of the idea of using all national resources  
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15 for the development of Finland. In the new context these resources are knowledge and  
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17 technology.  
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25 So far, the regional, innovation and information society policies pronounce the  
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27 traditional goals of a balanced regional structure. However, the population, employment  
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29 and R&D trends indicate a divergence in regional cohesion instead of balance  
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31 throughout the country. In practice, there are very few growth areas in Finland (globally  
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33 competitive large urban agglomerations), a few areas of potential modest growth or  
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35 decline (regional centres) and many declining areas (the rest of the country).  
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37 Simultaneous implementation of the traditional distributive welfare policy and the new  
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39 competitiveness policy goals easily leads to a policy mismatch at the local level, as  
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41 indicated with the case of Multipolis. To be efficient, such a network must focus on very  
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43 few, key special technologies. Less developed areas have serious challenges in this  
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45 respect due to lacking competencies. In addition, because global trends vary very rapidly  
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47 and competition is increasing, concentration on globally-oriented high technology makes  
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49 the localities vulnerable.  
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3 In a short article it is not possible fully explore how much the Finnish innovation policy  
4 and its regionalisation followed a logically planned path. One has to more deeply  
5 consider the particularities of internal and external contexts and the persons involved in  
6 the decision-making, trials and errors. Obviously, the prevailing way to narrate the  
7 Finnish story is to stress the proactive approach and logical selection instead of uncertain  
8 trials, errors and coincidence (but, see MIETTINEN, 2002). Policymakers easily see  
9 themselves as crucial in enabling social institutions to be characterised by institutional  
10 learning and in favouring organisational capacities that intertwine the key actors of  
11 innovation. However, the private sector also played an important role, especially the  
12 leading enterprises involved in technology. There is much to learn from the evolution of  
13 the Finnish regional and innovation policies, but one has to deconstruct their trajectory  
14 before implementing them elsewhere. The current strategy and implementation do not  
15 necessarily prevent future lock-ins. In a global economy past success does not guarantee  
16 the future, so uncritical copying of the Finnish model definitely would lead to a  
17 mismatch.  
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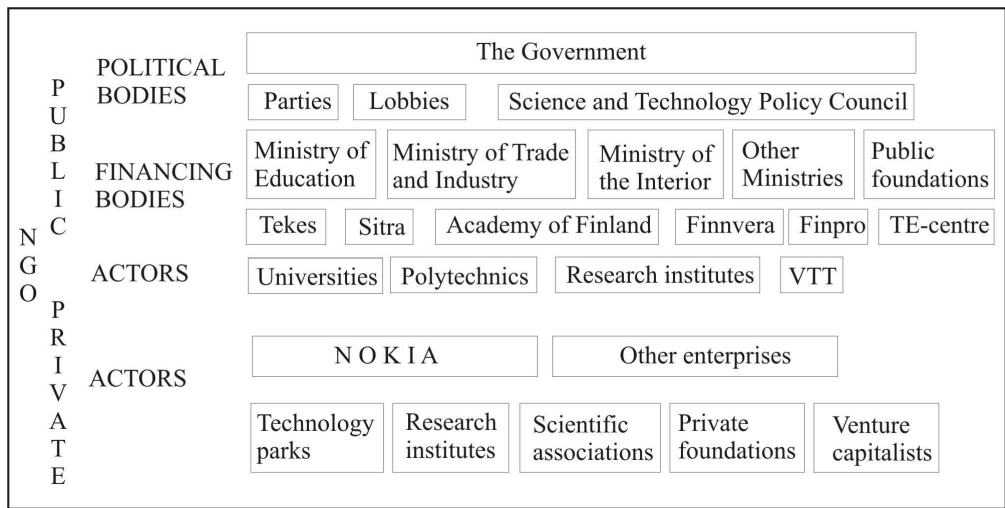
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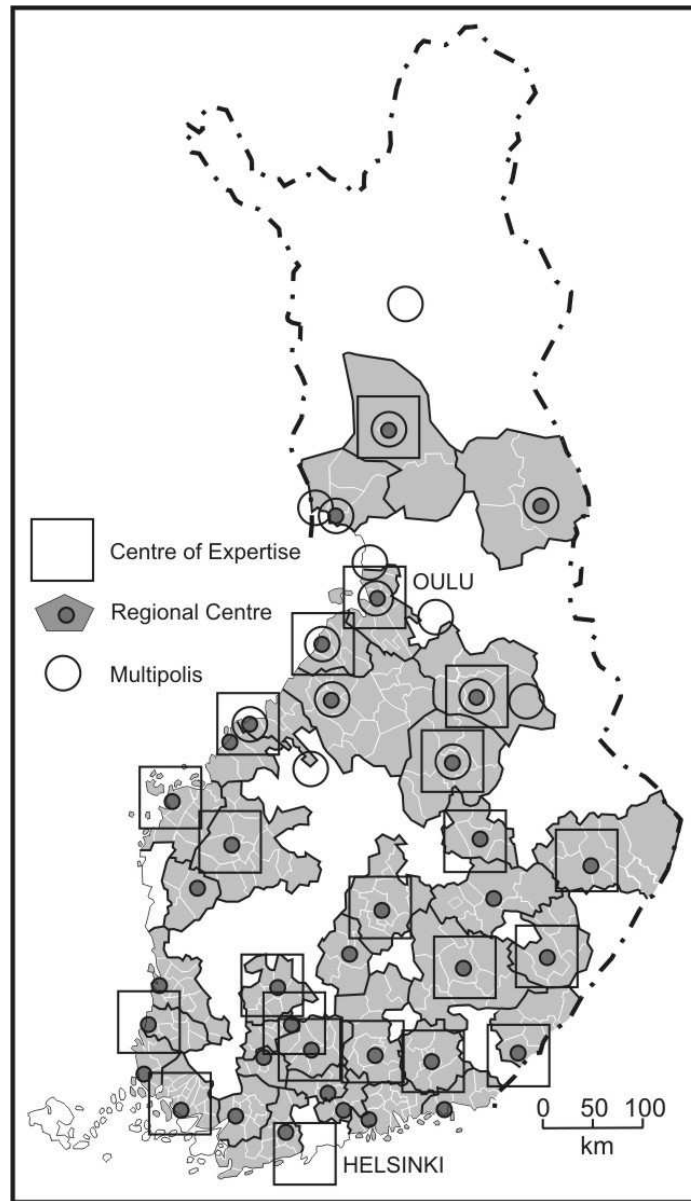
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