



Innovation activity in the ESF projects of Central Finland, Päijät-Häme, and Satakunta

Third intermediate report of the ALUEOSAAJA project

Jari Ritsilä

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Foreword

Innovation activity in the ESF projects of Central Finland, Päijät-Häme, and Satakunta

Third intermediate report of the ALUEOSAAJA project

Welfare - the objective of every region - requires staying in the front line of the manufacture of new kinds of products and services and the utilisation of more effective production methods and distribution channels. This in turn requires small gradual innovations in everyday working life and more radical solutions turning in completely new directions. Besides technological innovations the attention is also drawn to social innovations. People are the crucial factor in the way technology affects their lives and improves their well-being. Differences in know-how, motivation, evaluation, and interaction determine the direction of the development of different regions and the mutual competition.

The purpose of the European Social Fund projects is to assist regions and regional actors in the creation of welfare. Have they been successful? As the last projects of the structural fund period are beginning, the focus shifts to the results: what has been accomplished with the resources invested in the projects?

The third intermediate report of the ALUEOSAAJA project continues the evaluation of the projects and their results from the perspective of regional effectiveness and the strengthening of know-how. The first intermediate report examined the extent to which the projects focus on increasing know-how capital and aim at regional effectiveness, and how these characteristics can be strengthened in the planning stage of the project. The second report provided tools for the allocation of project funding to targets and actions to increase the probability of regional effectiveness and lasting results. In this third intermediate report, the perspective deepens further towards the core contents of development processes. What is the innovation activity in the projects? Where are the sources of innovation, what is the innovation directed at, how can the creation of innovations be promoted? Did they have the courage to turn in new directions when the "risk fund" of the Structural Funds was used? Is the development work of the projects utilised, or do part of the opportunities remain unused? The present report aims at finding answers to these questions.

The State Provincial Office of Western Finland, which is responsible for the coordination of the project, would like to thank the main sponsor of the project, the Ministry of Education, as well as the other sponsors, the Regional Councils of Central Finland, Päijät-Häme, and Satakunta and the State Provincial Offices of Southern Finland, Eastern Finland, Oulu, and Lapland, for making this extensive research project covering various administrative fields possible.

The authors and the steering group would like to thank both the project leaders and their organisations for a significant contribution to the success of the research. Without the active contribution of the parties carrying out the projects in the internet questionnaire and the interviews, the research would not have been possible.

We hope that this report will give you, dear reader, material for the promotion of innovation activity in your region.

Jyväskylä, September 2005

Jari Ritsilä

Leading Researcher

Lea Goyal

Inspector of Education

Chair of the ALUEOSAAJA project steering group

1 Introduction

The European Social Fund (ESF) contributes to the implementation of the Lisbon strategy (2000) across the entire EU. In accordance with the Lisbon strategy, the objective of the member states is, through the development of human capital and the promotion of entrepreneurship and innovation activity, to be at the top of the development of the knowledge-based society by the end of the decade. The promotion of innovation, in particular, is seen as a cornerstone with which the objectives of the Lisbon strategy can be attained. According to the latest reviews, however, the objectives are not being attained in the desired way in the intended schedule. The insufficient innovation activity in the member states is regarded as an essential obstacle to development. As concerns innovation, the Commission has also emphasised the importance of social innovations as a significant factor in the accomplishment of the objectives, besides the large R&D investments (EC, 2003a; EC, 2003b).

The study on the development of regional know-how and structural fund projects (ALUEOSAAJA) adheres to the contents of the Lisbon strategy. Its objective is to evaluate the effects of the ESF

projects on the development of regional know-how and competitiveness. The national-level review in the first stage of the ALUEOSAAJA study was based on the analysis of the grounds for the granting of funds¹. The second intermediate report, directed at the pilot provinces, concentrated on the review of the implementation, results, and expected effects of the projects, emphasising the specific issues emerged in the national-level review, i.e. development work, realisation of the effects, and continuity².

According to the results of the first intermediate report, based on the review of register material on the national level, ESF projects are strongly articulated with the objectives of producing know-how capital and employment and with regional development. Development work was also emphasised in the projects through the development of new methods, models, and lines of action. Further, an action model of learning region was constructed in the report as a frame of reference for the study. The results of the second intermediate report, which was based on questionnaires to those carrying out the projects as

¹ Ritsilä, J. & Haukka, J. (2003). ESF Projects in the Operational Framework of Learning Regions, Intermediate report I. Publications of the Ministry of Education 2003:7. Helsinki: Multiprint Oy. (In Finnish)

² Ritsilä, J. & Haukka, J. (2005). ESF Projects in developing Regional know-how - Effects of Project work in Satakunta, Päijät-Häme and Central Finland, Intermediate report II. Publications of the Ministry of Education 2005:3. Helsinki: Yliopistopaino. (In Finnish)

well as Regional Management Committees in the pilot provinces and also on provincial statistics, can be grouped under three main themes. First, in the projects under examination, direct influencing was closely connected with development work, the combined effect creating additional value to the projects. Second, the regional effectiveness of the projects correlated strongly with the promotion of research and development work, the utilisation of

learning networks, and the emphasis on the cooperation between central and peripheral regions in the implementation of the projects. Third, on the background of the creation of lasting effects in the projects were the emphasis on the development of the operational environment and the internal development of the implementing organisations and the utilisation of learning networks in project work (table 1.1).

Table 1.1 Key results of the two previous stages of ALUEOSAAJA project

National level: FIRST INTERMEDIATE REPORT (2003)	
Materials used	Three central outcomes
<ul style="list-style-type: none"> • Structural Funds Decree, ESF Decree, ESF frame of reference, Regional Development Act, objective programme documents, and other relevant documents • Relevant scientific literature • Analysis of the register material on the national level (500 projects) 	<ul style="list-style-type: none"> • The ESF projects are strongly connected to the objectives of employment and the production of know-how capital • The key processes of the learning region are vital in the setting of objectives • Development work and the development of the implementing organisations are emphasised in the setting of objectives
Pilot province level: SECOND INTERMEDIATE REPORT (2005)	
Materials used	Three central outcomes
<ul style="list-style-type: none"> • Structural Funds Decree, ESF Decree, ESF frame of reference, Regional Development Act, provincial strategic documents, the Lisbon strategy, the NAP, other relevant documents • Relevant scientific literature • Provincial statistics • Internet questionnaire to Regional Management Committees • Internet questionnaire to project leaders 	<ul style="list-style-type: none"> • Direct influencing and development activities integrate, producing explicit additional value to project activities • The promotion of R&D activities, the utilisation of learning networks, and the emphasis of the cooperation between central and peripheral regions in the projects are strongly correlated with the regional effectiveness of the projects • The emphasis in the projects on the internal development of the implementing organisations, developing operational environment and on the utilisation of learning networks correlate with the emergence of lasting effects in the projects

In the Finnish ESF frame of reference and the programming documents applying it, great expectations have been placed on the activity as an instrument supporting innovation activity as regards both the innovative methods developed in the projects and the promotion of the innovation system. Up to now, however, the reviews on ESF activities have not been able to provide a good account of the extent to which project activities have fulfilled these expectations. Also, several comments have been very critical, questioning the additional value of project activities from this point of view.

Through the review based on interviews of project leaders, the current, third intermediate report of the ALUEOSAAJA project aims at deepening the understanding of the significance of structural funds in the development of regional know-how, especially from the point of view of innovation activity. By means of thorough interviews we have intended to determine the extent to which the implemented interventions are integrated through the development activity emphasised in the ESF Decree and frame of reference into the support of innovation in

accordance with the Lisbon strategy. For reasons stated above the review is divided into two sections. First, the innovation activity taking place in the ESF projects is under examination. Second, the report is concerned with the role of the ESF projects in the regional innovation system.

The report is structured as follows: Chapter 2 presents the starting points for the acquisition of the data set, the limitations, the basic description of the data set, and the starting points for the analysis. Following this, Chapter 3 discusses the starting points and special conditions set for innovation activity by the Lisbon strategy, the national strategies, the ESF Decree, and the ESF frame of reference. Chapter 4 concentrates on the innovation activity taking place in the projects, whereas Chapter 5 charts the role of ESF projects in the development of regional innovation system. Chapter 6 presents the central conclusions and suggestions of the research. As concerns the conclusions and suggestions, we have tried to prioritise the perspectives that are most relevant to programme work, which is in accordance with the previous intermediate reports.

2 Data set and research arrangements

2.1 Defining the data set and acquiring information

The data used in the previous intermediate report was formed by the ESF projects that had received a financing decision in the pilot provinces (Central Finland, Satakunta, and Päijät-Häme) in 2000-2002 and the interprovincial projects, the actions and financing of which could clearly be assigned to the pilot provinces. The data set for the present report is formed by the projects that took part in the Internet questionnaire in the previous stage and the telephone interviews for further information. The questionnaire data of the previous report is used as background material in this report as well.

The number of the projects interviewed was 237, which is 66% of the respondents to the Internet questionnaire. 13 of the projects interviewed were so-called own production projects. Two of these were in the administrative sector of the Ministry of Trade and Industry (business departments of TE Centres), and the remaining 11 were in the administrative sector of the Ministry of Labour (labour departments of TE centres, employment offices). Table 2.1 presents the formation of the data set.

Table 2.1 Projects examined, replies to the Internet questionnaire, and interviewees

	Projects examined	Respondents to the Internet questionnaire (% of projects examined)	Interviewees (% of respondents to the Internet questionnaire)
Central Finland	176	139 (79 %)	89 (64 %)
Satakunta	166	128 (77 %)	84 (66 %)
Päijät-Häme	124	90 (73 %)	64 (71 %)
Total	466	357 (77 %)	237 (66 %)

2.2 Restrictions relating to the data set

The most fundamental restrictions in the study naturally relate to the subjectivity of the people involved and the validity and reliability of the data (Heikkilä, 1998). The telephone interviewees in the study were ESF project leaders, who cannot be considered fully objective sources of information as concerns interventions to be carried out. On the other hand, these people usually have the best view of the objectives, the operation, and the effects of the project in the implementation stage. Additionally, the presence of an external evaluator and the large number of interviews minimises the need of the interviewees to consciously manipulate the answers relating to the productivity of the projects. The acquisition of information through telephone interviews also enabled the phrasing of questions to be specified and tested while carrying out the interviews. Therefore, we were able to ensure

the reliability of the results and the validity of the phenomena examined. Particularly because of the challenging examination of innovations, this is a basic requirement for the production of adequate and reliable information basis.

Another essential limitation relates to the implementation stage of the projects. Some of the projects examined are still under way, and their results and effects have not been completely realised. The interviews of the project leaders took place from November 2003 to the end of March 2004. Figure 2.1 shows the ending year of the projects both by the number of projects and by the amount of funding. Measuring both by the number of projects (85%) and the amount of funding (75%), the majority of the projects have been in the final stage of implementation, ending during the year 2004 at the latest. On the basis of the above, the material can be assumed to give a fairly good picture of the phenomena under examination.

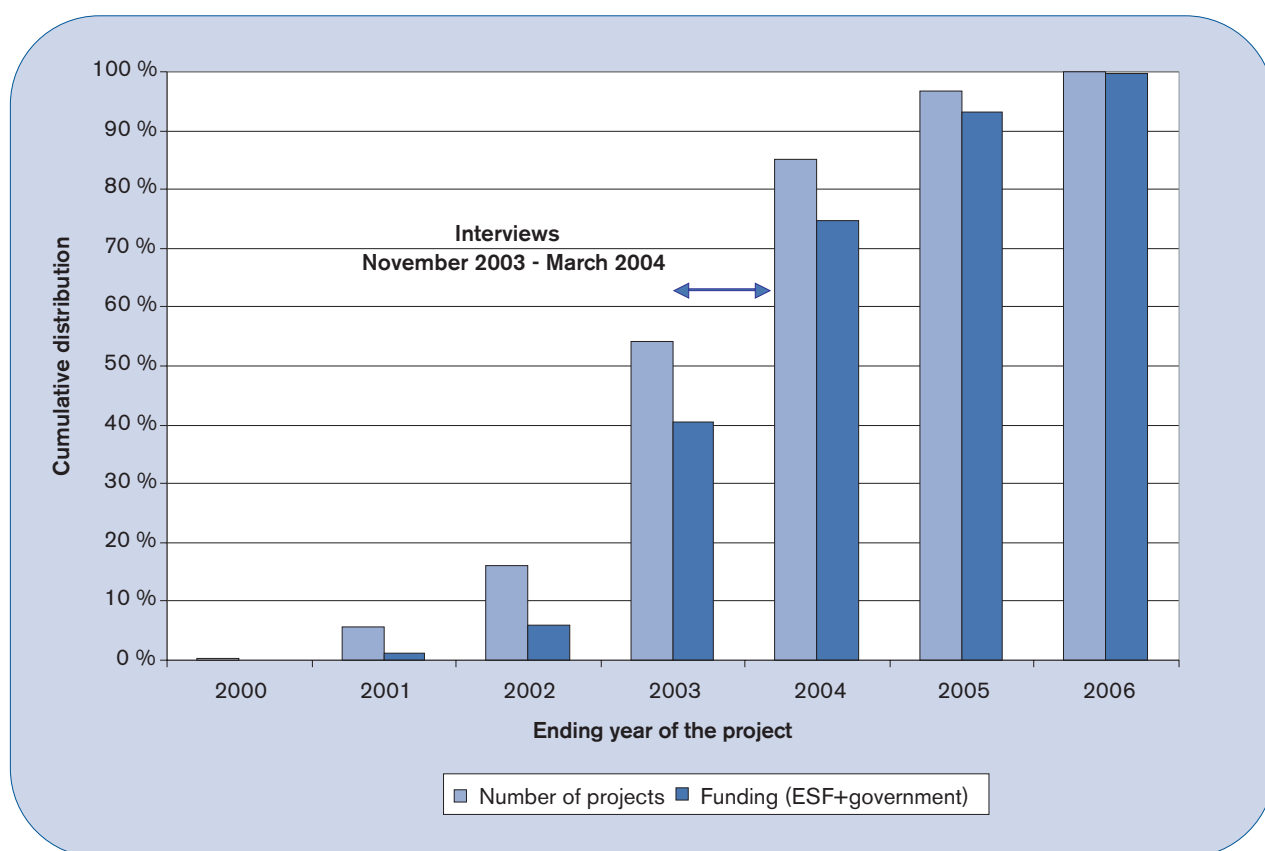


Figure 2.1 Ending year of the projects interviewed and time of the interviews

2.3 General description of the interview data

Table 2.2 presents the distribution of the projects interviewed as well as all projects by region, by programme, and by administrative sector, according to the number of projects. The generalisability of the interview material was tested concerning the key factors. The distribution of the interview data follows the distribution of both the projects interviewed and all projects, as concerns the key factors, and therefore, the acquisition of further

information can be considered to give a fairly extensive and generalisable picture of the ESF activities as concerns the phenomena under examination³.

Table 2.3 presents the distribution of the ESF projects interviewed into types of project by the number of projects and by funding, in relation to the projects that replied to the internet questionnaire (Appendix 1). Also in relation to the types of project, the interview material can be considered to describe well the ESF projects in the pilot provinces concerning the phenomena examined.

Table 2.2 Distributions of the projects interviewed (n) and all projects (N) by region, by administrative sector, and by programme

	SATAKUNTA		PÄIJÄT-HÄME		CENTRAL FINLAND		TOTAL	
	n %	N %	n %	N %	n %	N %	n %	N %
PROVINCES	35,4	35,6	27,0	26,6	37,6	37,8	100	100
Ministry of Trade and Industry	6,0	6,6	3,1	4,0	5,6	7,4	5,1	6,2
Ministry of Education	32,1	32,5	43,8	46,8	48,3	49,4	41,4	42,7
Ministry of Labour	39,3	39,2	50,0	45,2	32,6	30,1	39,7	37,3
Ministry of the Interior	20,2	19,9	-	-	11,2	9,7	11,4	10,7
Ministry of Social Affairs and Health	2,4	1,8	3,1	4,0	2,2	3,4	2,5	3,0
Objective 1	-	-	-	-	12,4	12,5	4,6	4,7
Objective 2	41,7	44,6	43,8	37,9	44,9	44,9	43,5	42,9
Objective 3	54,8	53,0	56,3	61,3	42,7	40,9	50,6	50,6
EQUAL	3,6	2,4	0,0	0,8	0,0	1,7	1,3	1,7

Table 2.3 Projects that participated in the interview and the Internet questionnaire divided into types of project numerically and financially (ESF+government)

Type of project	Interviewees % by number (ESF+govt.%)		Internet questionnaire % by number (ESF+govt.%)	
Actions aiming at the improvement of the career and life control of the unemployed	15,6	(14,1)	14,8	(14,4)
Actions aiming at the development of the professional skills of the unemployed	3,8	(11,3)	3,4	(9,6)
Direct employment measures aimed at the open labour market	7,2	(14,0)	5,6	(10,5)
Actions aiming at the development of entrepreneurship	29,5	(29,6)	31,1	(34,3)
Actions aiming at the development of the operation of educational institutions	17,7	(15,0)	18,8	(15,0)
Actions aiming at the development of on-the-job training	13,9	(9,0)	14,6	(9,6)
Actions aiming at the promotion of R&D activity	6,8	(3,2)	5,3	(3,4)
Actions aiming at the development of other parts of the public sector	5,5	(3,6)	6,4	(3,3)
Total	100	(100)	100	(100)

³ The distribution was statistically tested using the χ^2 test. According to the test the distribution of interviewees follows the distribution of the fundamental set as regards provinces, programmes, administrative sectors, and project types in accordance with the objectives set for the implementation of data collection.

2.4 Research arrangement

The aim of the third intermediate report of the ALUEOSAAJA project is to examine both quantitatively and qualitatively the innovation activity taking place in the ESF projects and the role of project activity in the development of a regional innovation system. The report aims to answer the following questions:

- What kinds of innovations arise in ESF projects, where do they come from, and how are their diffusion and continuity secured?

- How are ESF projects connected to the development of the regional innovation system, and what role do the implemented interventions have in them?
- How can the production of innovations in ESF projects and the role of ESF projects in the innovation system be further strengthened?

Table 2.4 presents the central targets of evaluation, sources of information, methods used, and outcomes of the report on the basis of the above.

Table 2.4 Research arrangement and central research questions

Target of evaluation	Sources of information	Methods	Outcome
CHAPTER 3 Strategic starting points and marginal terms for innovation activity in ESF projects	<ul style="list-style-type: none"> • Lisbon strategy • Relevant national reports • Government Programme • Strategy of the Ministry of Education • ESF Decree • ESF frame of reference 	<ul style="list-style-type: none"> • Strategy analysis 	<ul style="list-style-type: none"> • Objectives of the Lisbon strategy and the national strategies from the perspective of innovations • The role of ESF as an instrument of innovation activity in relation to strategic objectives
CHAPTER 4 Innovations in ESF projects	<ul style="list-style-type: none"> • Interview material • Results of the Internet questionnaire • Relevant scientific literature 	<ul style="list-style-type: none"> • Quantitative and qualitative analysis of the interview data • Quantitative and qualitative analysis of the Internet questionnaire as reference data 	<ul style="list-style-type: none"> • Starting points and content of the innovation activity in ESF projects • Social innovations in ESF projects • Adoption and diffusion of innovations
CHAPTER 5 ESF projects in the development of regional innovation potential	<ul style="list-style-type: none"> • Interview data • Results of the Internet questionnaire • Relevant scientific literature 	<ul style="list-style-type: none"> • Quantitative and qualitative analysis of the interview data • Quantitative and qualitative analysis of the Internet questionnaire as reference data 	<ul style="list-style-type: none"> • Connection of ESF projects to the development of a regional innovation system
CHAPTER 6 Conclusions and suggestions	<ul style="list-style-type: none"> • Results of the analysis of strategic starting points • Results of Ch. 4 • Results of Ch. 5 	<ul style="list-style-type: none"> • Synthesis of the evaluation 	<ul style="list-style-type: none"> • Accomplishments of ESF activity from the perspective of innovativeness • Suggestions for further development of the innovation aspect of ESF activity

3 Special conditions for innovation in ESF activity

3.1 Framework of the European Union Level

Innovation activity is the cornerstone of the Lisbon strategy, prepared by the European Council in March 2000. The Lisbon strategy emphasises the role of technical innovations as a source of economic growth and employment based on know-how. The objectives set for innovation development (to be at the top of the development of the knowledge-based society by the end of the decade) can be considered challenging, and the results accomplished so far at the European level are not satisfying. The level of innovation activity has remained lower than intended, and this is regarded as a central reason why the challenges of learning economy and economical development have not been met in the desired way. Essential problems behind the low attainment of the objectives of innovation activity, on the other hand, include low research and development investments and the inadequate realisation and commercialisation of innovations as new products and new enterprises (EC, 2003a; EC, 2003c; EC, 1995; EC, 2000; EC, 2005a; EC, 2005b). However, comparing countries within the European Union - according to the criteria of the Lisbon strategy - Finland is

among the most competitive countries (Blanke & Lopez-Carlos, 2004).

The updating of the innovation policy concerning the Lisbon strategy highlights the significance of social, organisational, and business-model innovations as sources of growth and employment. In this respect, other kinds of innovations besides technological ones have also been emphasised recently. The updating of innovation policy also stresses the fact that weaknesses in the creation of social, organisational, and business-model innovations have perhaps influenced the unsatisfactory meeting of the targets set in the Lisbon strategy as much as the low level of R&D investments. To meet the challenges of innovation policy, the Commission emphasises the significance of the know-how basis in the production, transformation, and utilisation of innovations. On the basis of the above, the role of the development of social and organisational innovations and the operating environment should increasingly be emphasised in the support of the creation and application of innovations (EC, 2003a). However, the support of technological

innovations of high-technology enterprises and universities is still strongly emphasised in the strategic choices of innovation policy. Therefore, extending the range of innovations to cover other areas besides technology is left with little importance, at least at the concrete level (EC, 2005a; EC, 2005b).

3.2 Challenges and reactions at the national level

The particular challenges of the Finnish innovation policy include the reformation of enterprises, the modernisation of traditional businesses, the development of know-how intensive services, the support of cooperation networks, the strengthening of basic research, the reformation of the education system, the prevention of social exclusion, regional cooperation, and the coordination of innovation activity (Sitra, 2002). Society must be renewed by supporting both technological and social innovations in order to secure regional competitiveness in the constantly changing world economy. There is reason to suggest that besides supporting traditional technology-oriented innovation activity, it is more and more important to support social innovations as well (Science and Technology Policy Council of Finland, 2002).

The central challenges of national innovation policy are also brought up in the report on the effects of globalisation on the Finnish economic and employment strategy, prepared by a committee appointed by the Prime Minister's Office. The role of technological innovations as the basis for national development is still important, but the essential problem is the insufficient realisation of innovations as successful products or enterprises, which is partly the result of too much technology-orientation in relation to business know-how in innovation policy. The final report by the committee brings up the significance of organisational and social innovations alongside technical innovations as producers of growth and employment. The report emphasises their connections with technical innovations and pays attention to the support of the innovation

activity concerning services in both the private and the public sector, through which the quality and productivity of services can be improved (Brunila et al., 2004).

The objectives of the Finnish Government Programme are closely connected to the challenges of innovation policy stated above. It is an objective of the Government Programme to support the research and development activity, know-how, and innovation activity both in the service sector and in new branches of industry. Special emphasis has been put on the development of the potential relating to the commercialisation and productisation of innovation and on the promotion of the implementation of new technology and new business models. As regards the development of the regional innovation potential, the Government Programme aims at increasing the regional effectiveness of universities and polytechnics by developing education and research through the support of regional strengths and characteristics. As regards the promotion of regional development and innovation activity, the Government Programme emphasises the expansion of the effects of centralised know-how and the know-how and technology centres in order to strengthen the know-how and technology basis in areas outside them (Prime Minister's Office, 2003).

The strategies of the Ministry of Education have more and more strongly emphasised the role of the education and research system in developing working life in the field of technological and social innovations. This has been seen as a way to support both the renewal of traditional lines of business and the development of new, growing fields. The strategies have strongly emphasised the role of universities and polytechnics in the support of regional innovation systems and innovation potential. The development lines of the Ministry of Education have highlighted the significance of the recursive interaction between education and business life, especially in the productisation and commercialisation of the results of research and development work. As regards universities, this aim is pursued through their business know-how, innovation services, the commercialisation of

innovations, and the concrete support of regional innovation activity (Ministry of Education, 2004).

3.3 Special conditions set by the European Social Fund for the support of innovation activity

From the point of view of supporting innovations, the ESF has two clearly different roles. First, the ESF Decree includes clear starting points for the support of innovations taking place in the projects through the development of education and the renewal and strengthening of employment services. The national ESF frame of reference additionally emphasises the role of ESF as a “development laboratory” and a product development tool in the projects carried out. Through the frame of reference, the strategic premises emphasise the pursuit for an active, developing way of working in the search for new approaches to education, employment, and the development of working life. This is a good starting point for the pursuit for innovativeness and innovations in the projects carried out (European Communities, 1999b; Ministry of Labour, 2001; Ministry of Labour, 2004).

Another starting point relating to innovations is the objective of the development of the innovation system, emphasised in the decree and the frame of reference. In the decree, this refers to the development of know-how in the fields of research, science, and technology. The frame of reference

correspondingly highlights the development of the innovation potential of enterprises through cooperation in production, technology, and marketing as well as through the related areas of productisation, commercialisation, and utilisation of technology. Through the development of know-how, ESF activity is connected by its strategic premises to the general development of the innovation system (European Communities, 1999b; Ministry of Labour, 2001; Ministry of Labour, 2004).

3.4 Central outcomes at the strategy level

The Lisbon strategy and the national strategies emphasise the development of innovation potential and the innovation system as a key factor in the development of employment, competitiveness, and productivity. The ESF contributes to the implementation of these strategies. The ESF Decree sets clear objectives for the development of education and employment services through the projects. On the basis of the above, the innovations created in the projects are expected to connect closely to organisational innovations and service innovations. Through the setting of objectives for the development of know-how capital, ESF projects are closely connected by their strategic premises to the general development of the innovation system as well.

4 Innovations in ESF projects

The ESF Decree highlights the development of human resources especially through actions directed at private persons. In addition, the decree emphasises the development of structures relating to know-how and the renewal and strengthening of employment services (European Communities, 1999b). Also, the national ESF frame of reference in Finland highlights the role of the ESF as a “development laboratory” in the field of the development of know-how. The objective of structural reform and the “development laboratory” arrangement inevitably leads to the pursuit of innovativeness and innovations in project work (Ministry of Labour, 2001).

Innovations can be defined as changes consisting of development and implementation of new processes, services, or products in a new context, often including a change of methods as well. Innovations can be described as "successful production, adoption, and utilisation of novelty" in economic and social fields (Rogers, 1995; Kimberly 1981; Clark, 1985; EC, 2001). Traditionally, innovation activity has been approached from the perspective of product, service, and process innovations as well as technical and organisational innovations. Innovations have also been typified by their character into incremental and radical innovations. Incremental innovations refer to the

gradual change through which the system, product, or process is made more effective with small improvements, without changing the fundamentals. Radical innovations refer to discontinuous change meaning e.g. completely new products or service (Alarinta, 1998; Kolehmainen, 1997). On the basis of the above, innovation can be typified into new or improved products, services, processes, and ways of organising work.

The examination of innovations increasingly highlights the significance of social innovations alongside technological ones. From the point of view of learning economy and learning regions, innovations are about change in which know-how transforms into new kinds of welfare-creating technologies, products, and services or ways of organising work through the learning process (Cooke et al., 2003). A social innovation correspondingly changes the related methods used by the community, and it is usually based on organisational and institutional reforms relating to problem solving and social relations. The starting point for the creation of social innovations is usually the challenge to solve problems relating to technology, commercialisation, the operation of organisations, or social practices (Lievonen & Lemola, 2004; Ruuskanen, 2004). In accordance with learning economy, a social innovation can be

understood as an interactive learning process between actors that are socially and regionally committed to each other and culturally and institutionally connected to each other (Lundvall, 1992).

The innovation activity defined in the ESF Decree focuses on the improvement of the operation of public-sector organisations in the fields of employment and development of know-how.

Further, the decree emphasises service innovations and innovations connected to service processes and organisational changes (figure 4.1). Social innovations, on the other hand, have a strong role in the creation, development, diffusion, and utilisation of these innovations.

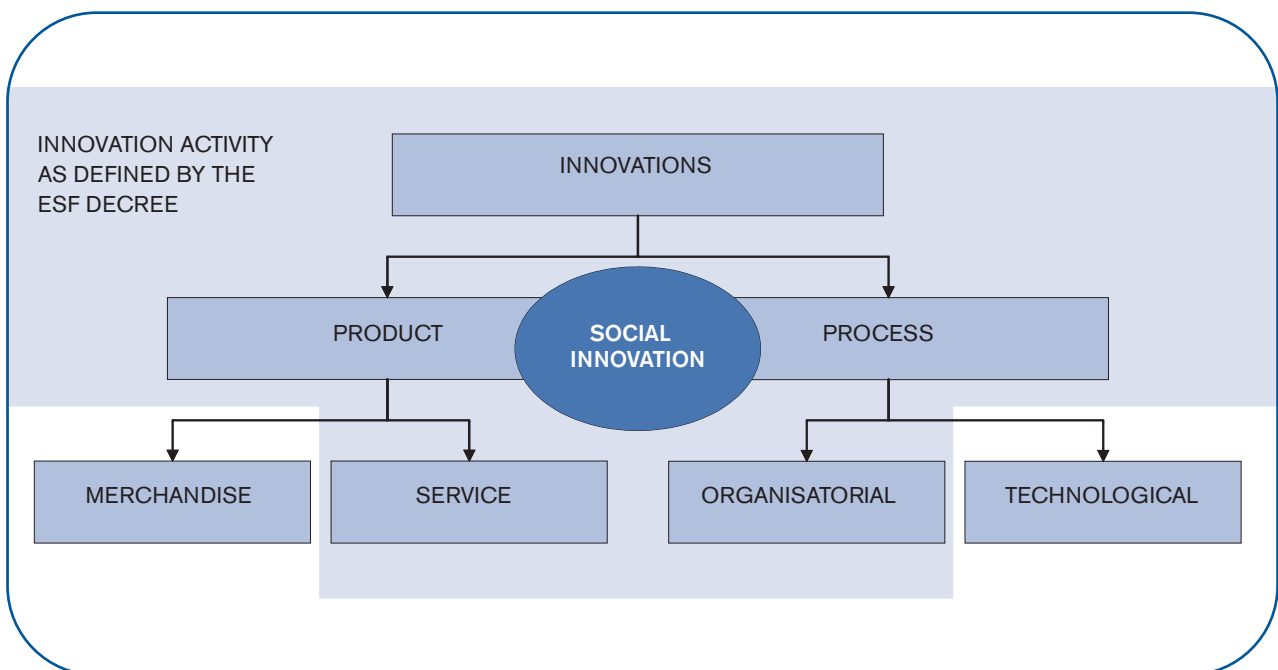


Figure 4.1 Focus of innovations in ESF projects

An essential factor relating to the innovation process is the diffusion process of innovations within and between organisations. The diffusion process emphasises the adoption, implementation, and establishment of innovations, which take place after their creation and development, and information channels for further distribution of the innovations (Rogers, 1983; Kolehmainen, 1997; Rogers & Shoemaker, 1971). From the point of view of innovations in project work, the success of the

diffusion process is a key factor in securing lasting effects and continuity, as concerns both the developing organisations and interest groups. Connected to the diffusion process are the production of innovations, the utilisation through learning, and the further development accomplished through feedback, which leads to the growth of information and further development of innovations (figure 4.2).

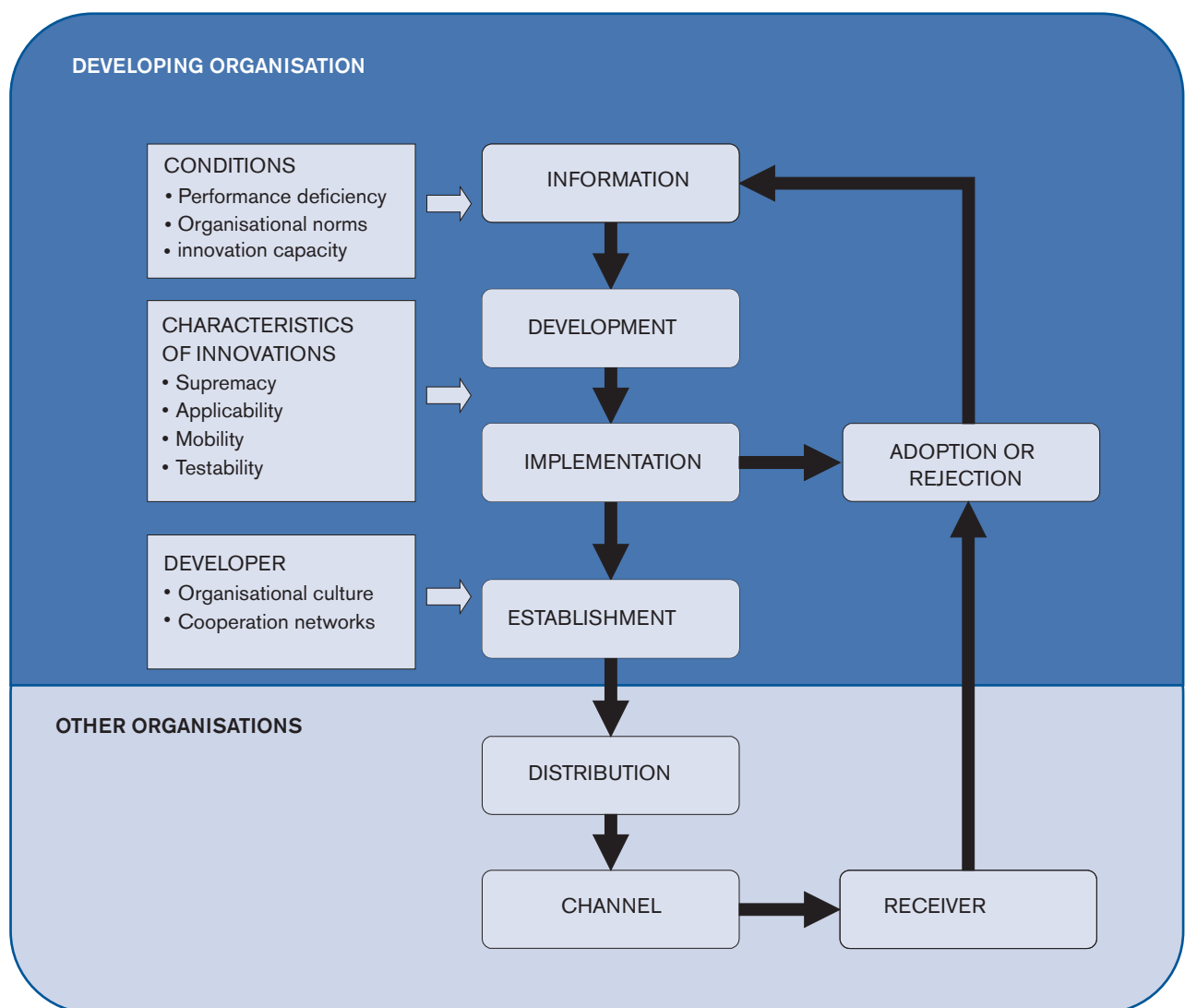


Figure 4.2 Diffusion and distribution of innovations (cf. Rogers, 1983; Rogers & Shoemaker, 1971; Kolehmainen, 1997)

4.1 Classifications used in the examination of the innovation activity of the projects

Starting points of innovation activity. From the perspective of innovation activity in the projects and the development of the public sector, the origin of the innovation process is essential. The origin of an innovation can either be internal, i.e. the innovation has been developed inside the organisation, or external, i.e. the innovation has been developed elsewhere. Similarly, the basis of the innovation can be internal, in which case the innovation is based on a problem detected inside the organisation, or external, in which case the problem activating the innovation process has been detected outside the organisation (Kolehmainen, 1997; Rogers & Shoemaker, 1971). The classification presented above can be illustrated by a fourfold table that produces the types of organisational changes connected to innovations (Table 4.1).

Innovation typology. Innovations created in the projects are classified by type using the classification

developed for the examination of public sector innovations, enabling the observation of discontinuity (innovations) and continuity (organisational development) from the perspective of both the services and their users. As concerns the production of services, process innovations are strongly integrated with organisational and service innovations, and it is very problematic to differentiate these areas. Therefore, as concerns the innovations created in the projects examined, we will mainly adhere to the analysis of the product dimension. However, as mentioned above, this review covers the analysis of service innovations quite well. Figure 4.3 illustrates the principles of innovation typology. The horizontal axis indicates the division of service innovations according to their newness into new services and existing services. The vertical axis indicates the relation of innovations to the users of the services, dividing innovations to those that answer the needs of existing end users and those that answer the needs of new user groups (Osborne, 1998; Walker et al, 2002; Coombs, 1996).

Table 4.1 Types of organisational change in public sector innovations (Kolehmainen, 1997)

		ORIGIN OF INNOVATION	
		INTERNAL	EXTERNAL
BASIS OF INNOVATION	INTERNAL	Internal change (innovation developed inside the organisation, based on a problem detected inside the organisation)	Selective change (innovation developed elsewhere, based on a problem detected inside the organisation)
	EXTERNAL	Partial internal change (innovation developed inside the organisation, based on a problem detected outside the organisation)	Guided change (innovation developed elsewhere, based on a problem detected outside the organisation)

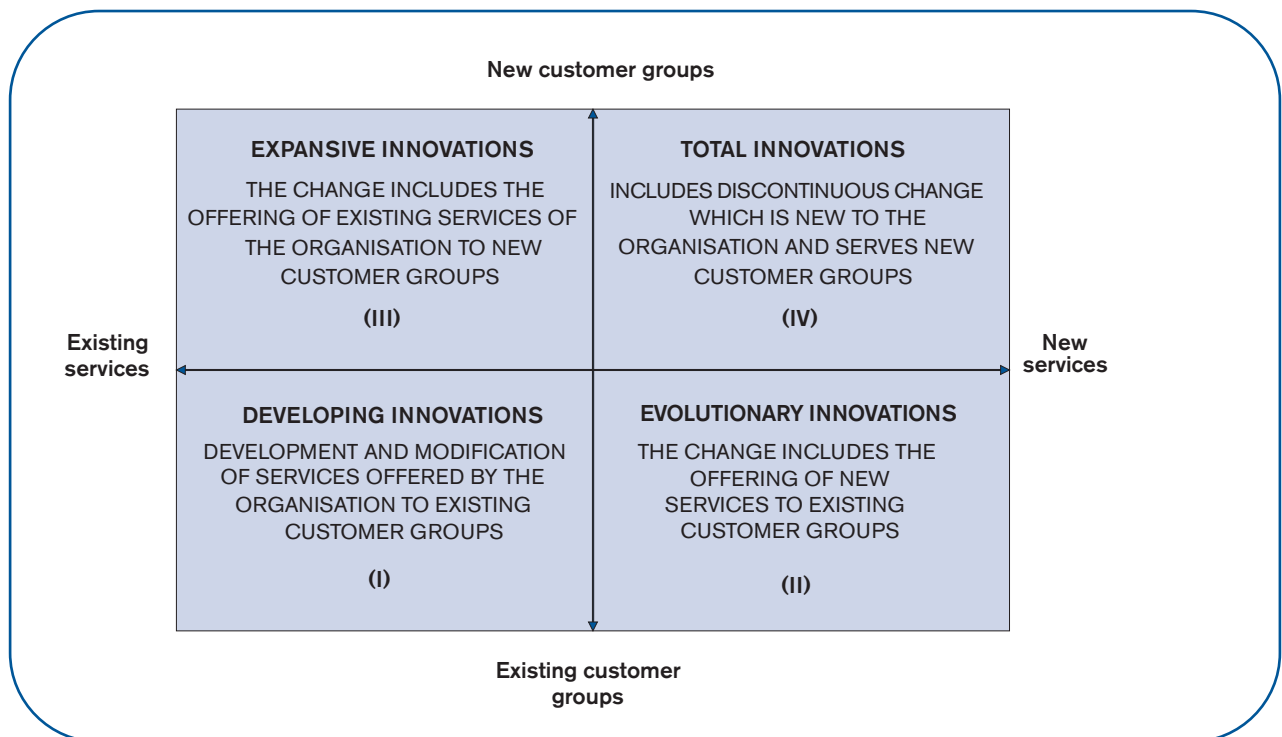


Figure 4.3 Innovation typology of public services (Osborne, 1998; Walker et al, 2002)

In accordance with the public sector innovation typology presented above, four kinds of innovations can be derived in the examination of ESF projects, taking into account the perspectives of discontinuity (innovations) and continuity (organisational development) (Osborne, 1998; Walker et al, 2002):

- (I) Developing innovations (incremental innovations), which connect to the development of existing services of the organisation and their improvement for existing customer groups.
- (II) Evolutionary innovations, in which the change is connected to the offering of new services to existing customer groups.
- (III) Expansive innovations, in which the change includes the offering of existing services of the organisation to new customer groups.
- (IV) Total innovations, in which the change includes the offering of services that are new to the organisation to completely new customer groups.

In the analysis of the distributions, as regards the classifications applied, we also tried to test the differences statistically in the realms of possibility. For certain parts, the material did not allow their application because of presumptions relating to statistical methods (e.g. distributional presumptions and the numbers of observations within the categories). The problem could have been solved by combining different categories, but that was considered to fundamentally reduce the information content. The statistical testing has been presented - to the extent that they have been used - in footnotes. Details can be obtained from the researchers.

4.2 Starting points and contents of innovations created in ESF projects

On the basis of the interviews, all public sector innovations in the projects examined have been based on solutions developed within the organisations (table 4.2). In none of the projects were any innovations based on utilising in a new operating environment the innovations produced outside the organisation. The bases of innovations, however, divide into development needs detected both inside (58%) and outside (42%) the organisation. The innovations created in ESF projects are strongly based on internal and partly internal change in the organisations. As concerns partly internal change, innovation activity is strongly connected to the national policies on the fields of the development of know-how, mainly regarding on-the-job training and the development of the regional effectiveness of universities. Therefore, the innovations created in ESF projects are by nature such that they both implement the national-level strategic choices and take into account the individual needs of project actors.

Table 4.3 divides the innovations created in the projects by the innovation typology used. The majority of the innovations created in ESF projects are such that develop the implementing organisation - the innovations are closely connected to the development of existing education and employment services for existing customer groups of the organisation. However, one fifth of the innovations created in the ESF projects under examination can be classified, according to the typology used, under more radical innovations, i.e. development of new services and/or serving new customer groups. Most strongly emphasised in these innovations are the production of new services to existing customer groups (evolutionary innovations, 11%) and the production of new services to new customer groups (total innovations, 8%). Clearly the smallest emphasis in the projects interviewed was on the offering of existing services to new customer groups (expansive innovations, 2%).⁴

Table 4.2 Origin and bases of innovations in ESF projects

		ORIGIN OF INNOVATION (N=131)	
		INTERNAL	EXTERNAL
BASIS OF INNOVATION	INTERNAL	Internal change (innovation developed inside the organisation, based on a problem detected inside the organisation) 58 %	Selective change (innovation developed elsewhere, based on a problem detected inside the organisation) 0 %
	EXTERNAL	Partial internal change (innovation developed inside the organisation, based on a problem detected outside the organisation) 42 %	Guided change (innovation developed elsewhere, based on a problem detected outside the organisation) 0 %

⁴ As concerns total innovations the result is very similar to the results of earlier studies on innovations in the public and private sectors (see Walker et al, 2002 and Coombs et al, 1996).

Table 4.3 Types of innovations in ESF projects and allocation of funding by type of innovation (ESF + government) [N=237]

Innovation type	Number (%)	€ million (%)	Content focus
Total innovations	20 (8 %)	5 (6 %)	New services to new customer groups (e.g. new R&D services and education services to enterprises, technology-based education programmes, product development and testing environments, productised education services to enterprises)
Expansive innovations	4 (2 %)	1 (1%)	Expansion of existing services to new target groups (e.g. adult education services, education services to special groups and the unemployed, expansion of R&D services to new customer groups, application in basic education of education services developed for enterprises)
Evolutionary innovations	25 (11 %)	10 (12 %)	New services to existing customer groups (e.g. new study lines, educational possibilities, study programmes)
Developing innovations	82 (35 %)	35 (41 %)	Development of existing service processes to existing customer groups (e.g. distribution of operation models and processes in education, employment services and social services)
Total	131 (55 %)	51 (59 %)	

Looking at the ESF and government funding to the projects, the result is very similar. Nearly 60% of all ESF and government funding has been allocated to projects aiming at innovation activity through either total, expansive, evolutionary, or developing innovations. The funding granted to single projects that produced innovations did not differ from the

funding granted to other projects on average. Instead, the projects that produced innovations lasted longer than average, and within the projects a larger part of resources were allocated to development work⁵.

⁵ Kruskal-Wallis test results: ESF and state funding $\chi^2=3.701$ ($p=.448$); the duration of the project in months $\chi^2=17.675$ ($p=.001$ ***); resourcing of development $\chi^2=12.258$ ($p=.016$ **)

As regards the pilot provinces, the overall innovativeness of the projects has been equal in quantity, taking into account all types of innovations. Between innovation types a clear exception is Päijät-Häme, where the total innovations created in the projects have been emphasised more than in Satakunta and Central Finland. In addition, the funding allocated to projects that produced innovations has been clearly smaller in Central Finland than in the other pilot provinces. Examined by administrative sector, the proportion of total innovations is clearly larger in the projects of the Ministry of Education and the Ministry of the Interior than in other administrative fields. This phenomenon is partly explained by the connection of the projects in these administrative sectors with the increase of the regional effectiveness of universities through new R&D and education services. Clearly the smallest number of innovations has been created in the projects in the administrative sector of the Ministry of Trade and Industry. In these projects the focus

has been on the development of the business and substance know-how through utilizing existing services and methods (Appendix 2).

Examined by type of project (Table 4.4), the innovations created in the projects follow the overall distribution, developing, incremental innovations being emphasised in the projects. An exception, however, is that in operations aiming at the promotion of R&D activity, the innovations produced by the projects are strongly connected to the development of completely new kinds of services particularly to enterprises as a new target group (total innovations) and to the transfer of R&D-oriented educational products of existing enterprises to the basic education of educational organisations (expansive innovations). As regards total and overall innovativeness, the projects aiming at the development of educational institutions also stand out. The aforementioned projects have strongly aspired to develop education and educational structures in accordance with the ESF Decree.

Table 4.4 Innovations produced by the projects by type of project

		Total	Expansive	Evolutionary	Developing	All
Career and life control of the unemployed	n=37	5 %	5 %	16 %	27 %	54 %
Professional skills of the unemployed	n=9	0 %	0 %	22 %	22 %	44 %
Direct employment measures	n=17	0 %	0 %	12 %	47 %	59 %
Development of entrepreneurship	n=70	4 %	0 %	6 %	23 %	33 %
Development of the operation of educational institutions	n=42	17 %	0 %	24 %	31 %	72 %
Development of on-the-job training	n=33	9 %	0 %	0 %	82 %	91 %
Promotion of R&D activity	n=16	31 %	13 %	6 %	0 %	50 %
Development of the rest of the public sector	n=13	0 %	0 %	0 %	46 %	46 %
All	N=237	8 %	2 %	11 %	35 %	55 %

Table 4.5 presents the distribution of different kinds of innovations in different developing organisations. In accordance with the classification of innovations, total innovations are strongly emphasised in the higher education organisations of the pilot provinces. This is partly explained by the fact that the projects examined emphasised strongly the regional development task of universities, in accordance to which ESF funding has been directed at developing concrete methods and services to support regional entrepreneurship and develop the innovation system. The emphasis on total innovations in third-sector organisations correspondingly connects to their new role in the production of services directed at the unemployed.

Measured by the innovation index (table 4.5), innovation activity is most strongly emphasised in projects implemented by other educational institutions, municipal education and training consortiums, and labour departments. This result reflects the strong role of ESF projects in the construction of regional know-how infrastructure and the reformation of employment services. The aforementioned sectors have been strongly focused on the development of education and service processes, and the innovations have thus been of the developing variety. On the other hand, in the projects implemented by polytechnics and universities, the significance of total innovations has been considerably greater.

Table 4.5 Innovations in different implementing organisations

		Total	Expansive	Evolutionary	Developing	All	Innovation index
Higher education institute	n=69	16 %	3 %	10 %	19 %	48 %	87
Adult education unit	n=14	7 %	0 %	14 %	29 %	50 %	91
Other educational institution / municipal education and training consortium	n=65	3 %	2 %	12 %	65 %	82 %	149
Municipal organisation unit	n=20	10 %	0 %	5 %	30 %	45 %	82
TE centre, labour department	n=5	0 %	0 %	0 %	60 %	60 %	109
TE centre, business department	n=2	0 %	0 %	0 %	50 %	50 %	91
Employment office	n=6	0 %	0 %	0 %	50 %	50 %	91
Other public sector unit	n=18	0 %	0 %	17 %	28 %	44 %	80
Development company	n=15	0 %	0 %	13 %	20 %	33 %	60
Third sector	n=12	17 %	8 %	8 %	8 %	42 %	73
All	N=226	8 %	2 %	11 %	34 %	55 %	100

4.3 Social innovations and co-learning

According to the project interviews, the majority of public sector innovations have been based on learning and development work inside and between organisations (table 4.6). Social innovations integrate strongly to service and organisation innovations produced through learning and development work. As regards developing innovations, learning and development work inside the organisations are emphasised. Learning and development work between organisations, on the other hand, are emphasised particularly as regards evolutionary, expansive, and total innovations. On the basis of the above, it can be noted that when it comes to more radical innovations, organisations have a greater need to search for know-how outside the organisations as well to successfully implement innovation processes⁶. The more radical a service innovation has been, the greater need there has been for combining the know-how of organisations and for social innovation.

The "co-learners" of innovations connected to employment and the development of the structure of know-how vary. As regards innovations connecting to the strengthening of the development of know-how, the most common producers are naturally educational institutions and research and development units. Correspondingly, innovations relating to the development of employment services are usually produced by other public sector units and third-sector organisations. In both cases the role of the enterprise sector in the development of the innovations created in the projects has been significant according to the interviews. The innovation activity in the projects has a strong connection with the needs of the enterprise sector in the region as concerns both employment and the sectors of the development of know-how. This expresses the fact that the active role of the enterprise sector in the production of public sector

innovations is considered important.

Through the link with the enterprise sector, networking, social innovations, and the pursuit of changes in ways of action connected to social innovations, the projects interviewed connect strongly to the development of the operating environment. From this viewpoint the project leaders brought up the service structure of the region and the development of the know-how infrastructure as specific challenges. From the viewpoint of employment, the starting point has usually been the improvement of effectiveness through the development and adoption of common methods and service solutions, and the corresponding focus in the development of know-how has been the improvement of the orientation towards working life.

The results are very similar across the pilot provinces. Innovation activity in all pilot provinces is strongly connected to the development work, learning, and change of methods co-implemented by the organisations. Across administrative sectors, on the other hand, there are differences in the production of innovations. In the projects in the administrative sector of the Ministry of Trade and Industry, only internal learning and development are emphasised (in this context the small overall number of projects producing innovations in the administrative sector needs to be noted). As regards the Ministry of the Interior, on the other hand, the learning and development work between organisations are emphasised more than on average (see Appendix 2).

4.4 Moving target and the diffusion of innovations

There is a learning process related to the creation and development of innovations, through which the product, service, or production process is developed. In the early stages of the innovation process there may be no information about the final

⁶ The same phenomenon has been observed in earlier studies as concerns enterprises: the more radical and "discontinuous" the change relating to the innovation is, the more difficult it is for a single enterprise to implement it alone, because it requires, for instance, the unification of new technological know-how (e.g. Coombs et al, 1996).

Table 4.6 Co-learning in public sector innovations

Type of innovation (N=131)	Primarily based on learning and development inside the organisation (%)	Primarily based on learning and development work between organisations (%)
Total	20	80
Expansive	25	75
Evolutionary	20	80
Developing	33	67
All	28	72

Table 4.7 Innovations, lasting effects, distribution of the results, and further development

Type of innovation (N=131)	Lasting effects have been created in the project (%)	Distribution of the results of the project (%)	Further development (%)
Total	75	90	80
Expansive	75	75	75
Evolutionary	88	72	100
Developing	84	85	81
All	83	83	84

"goal", which only comes into existence through the learning process. From the viewpoint of innovativeness and innovations this means that the operation models under development are tested in a real operational environment and target groups, and further, that feedback is received for redirecting, specifying, and concretising the development work (Ritsilä & Haukka, 2005). According to the interview material, the original objectives and implementation process have changed during the implementation in nearly one third of those projects that aimed at innovation activity - the "goal" of the project has been changed as a result of learning. The majority of changes have originated in the experiences gained through the implementation of actions aiming at direct effect.

Other significant factors triggering the change process were mainly related to changed factors in operating environment or cooperation. Changes made in the implementation of the projects have reflected both to innovations created in the projects and to actions of direct influencing. In projects connected to innovation activity, the combination of direct influencing and development has been of primary importance regarding both content and operation. Through direct action, innovation activity has better conditions to operate based on demand. The combination of innovation activity and direct action can also be seen as a prerequisite for the successful integration of innovations into the basic operation of organisations.

According to the interviews with the project leaders, the majority of the projects that produced innovations have also accomplished permanent effects in the operation of organisations (Table 4.7). The creation of permanent effects has been emphasised especially as concerns developing and evolutionary innovations. In innovations relating to new customer groups and new services, less than the average amount of permanent effects have been created so far. The weaker establishment of total and expansive innovations into the operation of the developing organisation is explained by their radicalism. Total and expansive innovations are about producing new services to new customer groups, and the risk of failure is also greater. The more radical the innovation is, the more demanding its realisation process will become (Lievonon & Lemola, 2004).

On the basis of earlier research, it has been observed that the obstacles to successful innovation process include insufficient preparation and motivation of development work, resistance to changes within the organisation, a culture eschewing new solutions, and insufficient resources for development work (cf. Kolehmainen, 1997). These things came up in the interviews for this report as well.

As the most important factor influencing the entrenchment of the innovations of ESF projects, the interviewees brought up the coordination of innovation activity across the organisation, which in practice means getting the management and the personnel committed to the adoption the innovations. The project leaders emphasised the importance of the diffusion of innovations between organisations already in the early stages of the project. In the projects which, according to the

interviews, have not succeeded in creating lasting effects and entrenching the innovations, the lack of resources and the detachment of the project from the proper activity of the organisation were brought up as the central reasons. Although in some of the projects the development objectives had been connected to the organisation strategy, the project leaders saw that enough energy had not been invested in the practical entrenchment of the innovations.

From the point of view of innovations, ESF funding has clearly had a role of activating various processes. The majority of the projects interviewed would not have been implemented, in other words, the innovation would not have been produced without ESF funding (88%). Funding has clearly had a role of producing innovations, particularly in the public sector innovation activity. The majority of the projects (cf. Table 4.7) aim at actively distributing the innovations (83%) and further developing the processes started (84%). As a motive for further development, the interviewees emphasised the improved readiness of organisations to react to changes coming from the operating environment. A large part of the projects examined have the characteristics of recursive continuity, in which the distribution and utilisation of innovations creates further needs and emphases to further develop the innovation processes started, while at the same time, the innovation processes create increasing demand for the innovations produced (Figure 4.4). The results are very similar across the pilot provinces (Appendix 2). The further development and distribution of innovations support the accumulation of learning and multiplicative effects in the pilot provinces.

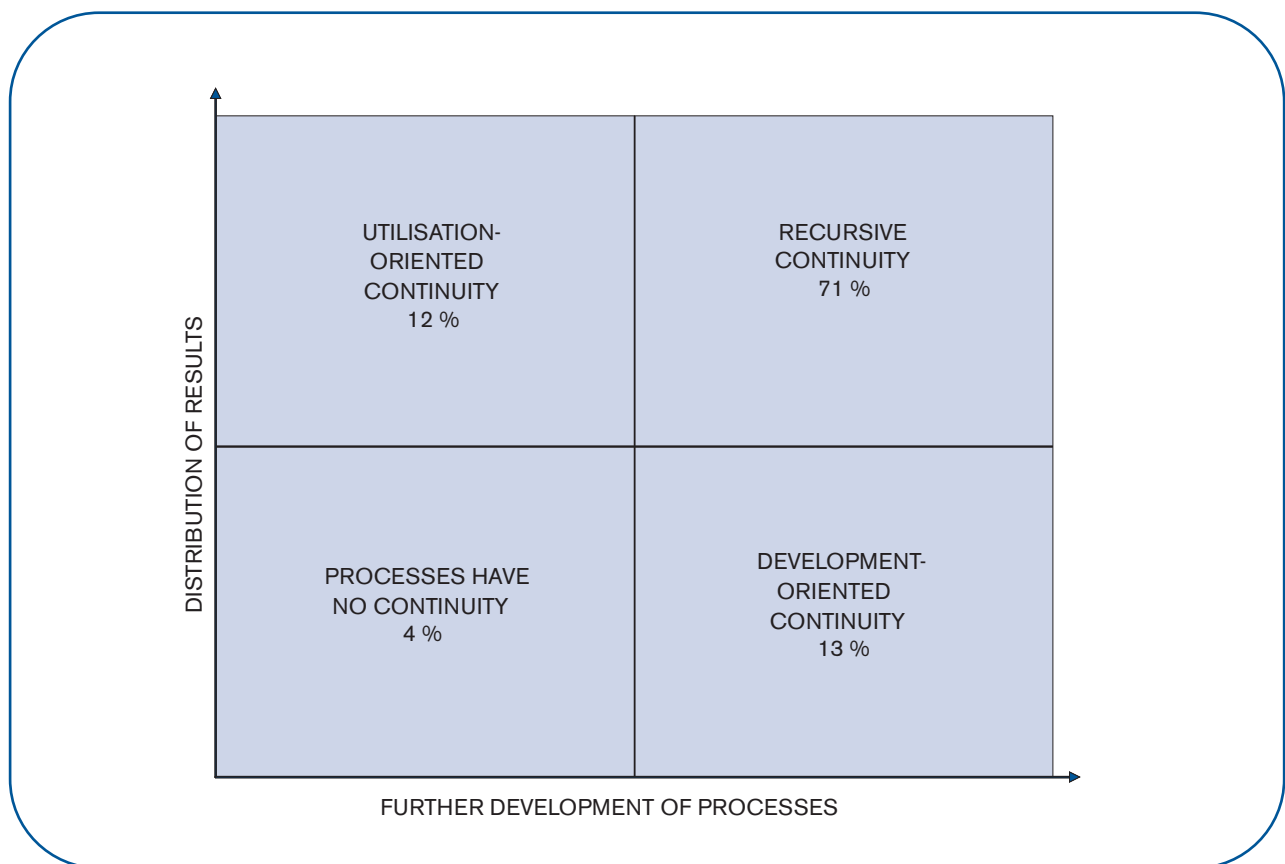


Figure 4.4 Continuity pursued in the utilisation of innovations in the projects examined (N=131)

Closer examination of the content and concreteness of the development and distribution aspects, however, reveals that the picture of continuity is not nearly as convincing. Although the interviewees emphasised the active distribution of the results of the projects, every fourth project had not considered the actual distribution channels and methods. Further, communication, seminars, and electronic and printed publications became the most significant concrete distribution channels. These, however, can be considered relatively passive ways to accomplish true recursive continuity.

According to estimations, only 27% of the projects connected to innovation activity reach true recursive continuity through the utilisation of networks. As concerns the distribution of results, it should be critically considered whether the

distribution has been sufficiently taken care of and whether the related actions are too unidirectional from the perspective of the passage of information. It is highly probable that of the projects interviewed, only those that utilise active networks and have prepared clear distribution plans will reach the level of true recursive continuity. The securing of wider and more effective diffusion requires more active measures, particularly from the viewpoint of commitment. In practice, those that finance and those that implement the projects should consider in cooperation the principal starting points of the continuity of the project. The key question will be how the results are to be distributed and how the cooperation structures and commitment are organised as early as the planning and initial stage of the project.

4.5 Central outcomes of the analysis of innovation activity in the projects

Innovation activity in ESF projects is strongly focused on the development of the production of services in the public sector. The primary producers of innovation are public sector actors in the field of education and employment. Four central outcomes can be derived from the analysis of innovation activity in ESF projects presented above:

- (1) The projects have aimed at making the operation more effective in accordance with the ESF Decree in the fields of education and employment through developing (i.e. incremental) innovations.
- (2) The innovation activity has been guided by problems detected both inside and outside the organisations. Innovations, on the other hand, have been developed inside the organisations, without applying existing innovations in a new operating environment.
- (3) The innovations produced by the projects have mainly been based on learning and development work within and between organisations.
- (4) The objective of the projects is to further develop and distribute the innovations produced, but on the other hand, distribution channels have not been sufficiently considered in the projects.

In whole, the production, utilisation, and further development of innovations are strongly integrated in the innovation activity of ESF projects. The production and implementation of innovations is coloured by the process of co-learning. Also, the further development of innovations is emphasised as part of the securing of continuity in the innovation processes of the projects. In project work the production of innovations is strongly integrated with direct action e.g. in the form of education or employment measures, which then makes an effective feedback system possible in order to further develop the innovations. The further development of innovations supports cumulative know-how in producing organisations and interest groups. Through learning, feedback, and cumulative information, the role of social innovations is of key importance in the development of the production of services implemented by the ESF projects.

The innovations created in the ESF projects integrate strongly to the development of organisations and services in the public sector, as presented above. It is important to note, however, that project work also has a significantly wider connection with the development and support of regional innovation system. This role is examined in Chapter 5 below.

5 ESF projects in the regional innovation system

5.1 Starting points of the examination concerning the role of ESF interventions in the innovation system

The operation of the regional innovation system can be divided under three cycles according to Figure 5.1. The basis of the innovation system can be considered to be the regional innovation potential, which mainly consists of the regional innovation infrastructure including research units and universities, the innovation base produced by the enterprise sector, and the cooperation between the enterprise and research sectors. The utilisation of the regional innovation potential is followed by the stage of developing innovativeness (breakthrough of ideas into innovations), which includes the creation and recognition of competitive innovations, their productisation and commercialisation, and the diffusion of innovations (Tanewski et al, 2003). The effective utilisation of

innovations correspondingly leads to the wider realisation of innovations into the regional economy, which manifests as increase in investments, productivity, and competitiveness, and as the creation of new enterprises and jobs (Lievonon & Lemola, 2004; Davelaar & Nijkamp, 1989; Cooke, 1998; Lundvall & Borras, 1997). The above-mentioned cycles can be thought of as a continuum with no clear border between them. Further, they form a kind of a hierarchic unity in which the realisation of the previous cycle is a prerequisite for the next one. On the other hand, the innovation process becomes cumulative - the realisation of innovations into the economy enables greater resources to be allocated to the development of innovation potential.

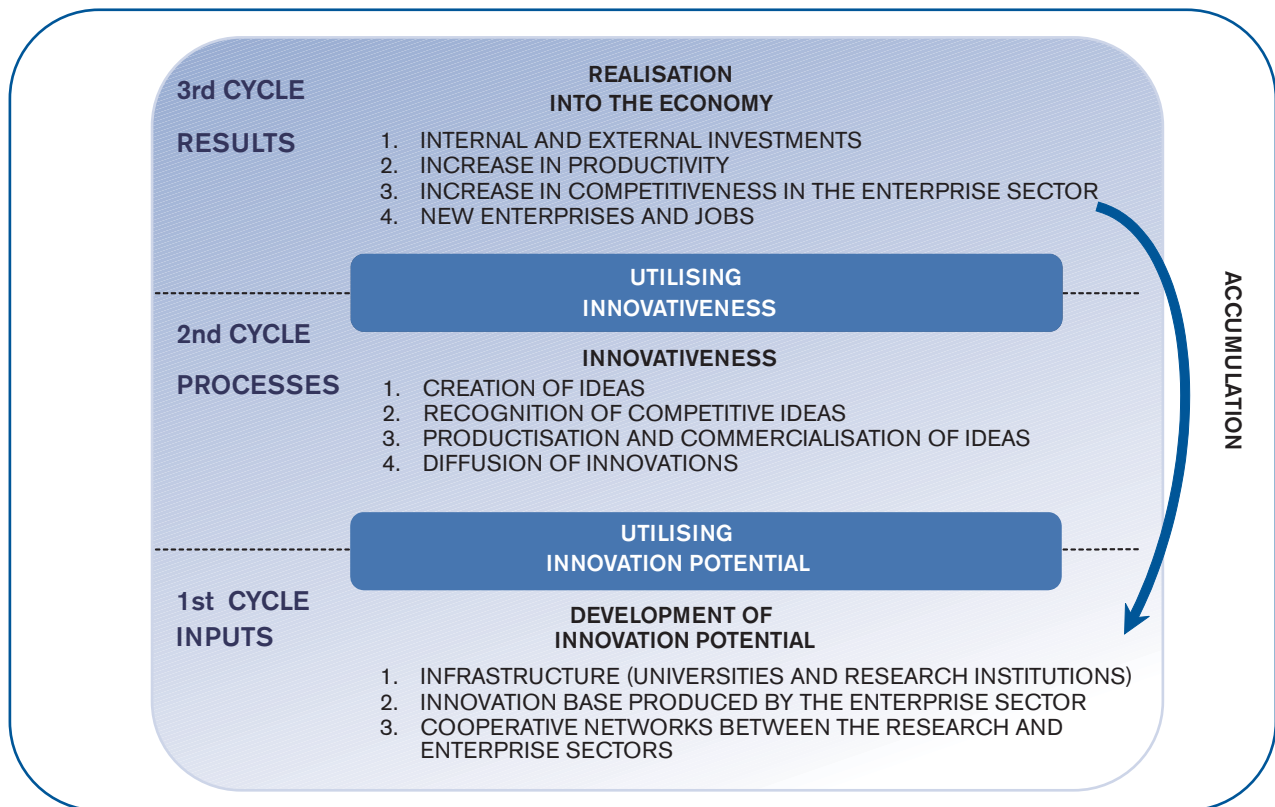


Figure 5.1 Cycles in the innovation system (cf. Brunila et al., 2004; Davelaar & Nijkamp, 1989; Lievonon & Lemola, 2004; MEANS, 1999)

Through the development of learning, ESF actions can be used to support the development of regional innovation potential, the formation of innovativeness, and further, the realisation of innovations into the regional economy. The following examines the connection of ESF projects

with the development of the regional innovation system in the pilot provinces. First we will go through the classifications used in the analysis of the interview material, and then we will present the empirical results and conclusions based on these classifications.

5.2 ESF project work in different innovation cycles

As regards the connection relating to the development of the regional innovation system, it is important to notice that the role of project work is strongly focused on the support of the processes of the innovation system; it is therefore indirect. On

the basis of the above, the analysis is particularly concerned with how ESF projects support and assist the development of regional innovation potential, innovativeness, and through the utilisation of innovativeness, their wider realisation into the regional economy. Table 5.1 summarises the classifications utilised in the analysis of the interview material relating to the regional innovation system.

Table 5.1 Classifications used in the analysis (non-exclusive)

(I) Supporting the development of innovation potential (CYCLE 1)	
Higher education and basic research	Projects which have emphasised actions aiming at the development of university degrees, post-graduate degrees, basic research, or higher education
R&D services	Projects which have emphasised actions aiming at the launching and development of R&D services
R&D networks	Projects which have emphasised the support of the networking between enterprises and research units
Innovation potential of enterprises	Projects which have emphasised the promotion of the R&D facilities of enterprises, further education of the personnel of enterprises in the field of science and technology, or the development of strategic anticipation capabilities of enterprises
(II) Promoting innovativeness (CYCLE 2)	
Business know-how of enterprises	Projects which have emphasised the development of the business know-how of enterprises
Productisation and product development	Projects which have emphasised concrete product development or promotion of productisation
Diffusion of innovations	Projects which have emphasised the support of the diffusion of technological innovations into organisations
(III) Promoting the regional realisation of innovativeness (CYCLE 3)	
Extensive industry development	Projects which are significant industry-specific development projects and which aim at extensive development of different sectors
Vertical networking	Projects which have emphasised the development of regional subcontracting chains, cluster-based development of entrepreneurship, and vertical transfer of innovations
Horizontal networking	Projects which have emphasised horizontal networking and transfer of innovations between industries
Supporting growth enterprises	Projects which have emphasised the recognition of growth enterprises and the support of the growth of enterprises by utilising innovations

5.3 The role of ESF projects in the development of regional innovation potential

Table 5.2 presents the connection of the projects interviewed with the development of regional innovation potential (cycle 1). According to the previous intermediate reports, the proportion of projects aiming at the promotion of research and development activity was very small both nationally and in the pilot provinces (Ritsilä & Haukka, 2001; Ritsilä & Haukka, 2005). According to the interview material, however, ESF activity also has a significant role in the development of innovation potential through other types of projects. 27% of the projects interviewed aimed at the development of regional innovation potential, while 21% of the public funding (ESF + government) was allocated to the development of the innovation potential in the pilot provinces. The most significant focus in the actions was the support of the creation of the innovation infrastructure in the pilot provinces through the development of basic and postgraduate university degrees, basic research, and higher education generally.

In addition to the above, the development of the innovation potential of enterprises was also strongly emphasised in the projects interviewed. This includes the development of know-how connected to the R&D facilities of enterprises and improvement of anticipation capabilities of enterprises. The development of anticipation capabilities in the projects was directed e.g. at the anticipation of changes in technology and markets, which supports the ability of enterprises to be utilising or producing innovations at the right time in the right place. In the projects aiming at developing regional innovation potential, the focusing on specific industries was stronger than in the other projects⁷.

The development of regional R&D services in the projects can also be considered significant for the building of regional innovation potential. R&D services are important in the operation of the innovation system, because they pass new know-how to their customer enterprises and strengthen the innovation capacity even in technologically mature fields (Järvinen et al, 2001; Kolehmainen, 2001; Palmberg, 2000). On the other hand, the development of R&D networks of enterprises and research units, which has often been emphasised in connection with the development of regional innovation systems, is emphasised to a surprisingly small extent in the projects (Table 5.2).

Only 11% of the projects aiming at the development of innovation potential emphasised the development of the cooperation between central and peripheral areas to a considerable extent, and the emphasis on the cooperation did not differ much from the profile of the other projects. Also, the projects aiming at the building of innovation potential are usually found on the central areas of the provinces. What can be seen as a positive result, however, is that 13% of the projects aiming at the development of innovation potential were connected to the projects implemented with ERDF funding. Practically all projects with an ERDF connection were directed at the development of regional innovation potential. Therefore, in part of the projects, the development of the innovation infrastructure has been connected through various funds to both the development of know-how by ESF funding and the infrastructure investments by ERDF funding. However, the number of these projects is very small.

There are more projects promoting the development of innovation potential in Päijät-Häme than in the other pilot provinces, measured both by the number of projects and by the public funding allocated to them. On the basis of the relative share

⁷ Nearly 64% of the projects aiming at building innovation potential pursued the creation of development conditions of certain industries. The lines of business most strongly emphasised in the projects include information technology, electronic industry, the manufacture of machines and devices, metal industry, graphic industry, and woodworking industry. Therefore, the development of innovation potential has focused on both the support of the initial stage of new growth sectors and the renewal of traditional industries.

Table 5.2 Connection of ESF projects with the building of regional innovation potential (cycle 1)

Element of regional innovation potential (N=237)	Promotion of elements by the number of projects (%)	Focus of content
Higher education and basic research	40 (17)	University degrees, postgraduate degrees, research, development of higher education
R&D services	16 (7)	Launching and developing R&D services
R&D networks	10 (4)	Promotion of the networking of enterprises and research and development units
Innovation potential of enterprises	35 (15)	R&D facilities of enterprises, further training of the personnel of organisations in the field of science and technology, strategic anticipation capabilities of enterprises

of different sectors of the development of innovation potential, Satakunta differs clearly from the other pilot provinces by the smaller emphasis on the development of higher education and research, the promotion of R&D networks, and the development of the innovation potential of enterprises. The development of regional R&D services, however, was emphasised more strongly in Satakunta than in the other pilot provinces. What is also noteworthy about the differences between provinces is that in Päijät-Häme there has clearly been a greater attempt at developing the innovation potential of enterprises (see Appendix 3)⁸.

According to the interviews, the differences between administrative sectors follow closely the division of their primary function as concerns the actions aiming at developing innovation potential. The development of innovation potential is emphasised especially in the administrative sectors of the Ministry of Education and the Ministry of the Interior, where the focus of the development of regional innovation potential has been on the promotion of higher education and research. Also, in the administrative sector of the Ministry of the Interior, the development of regional R&D services has clearly been emphasised. What is also noteworthy

⁸ Statistically, actions targeted at the development of innovation potential are equally emphasised in the provinces. As concerns different sectors of the development of innovation potential, differences can be found as regards the innovation potential of enterprises. The results are presented in Appendix 3.

is the strong connection of the projects in the administrative sector of the Ministry of Trade and Industry with the development of the innovation potential of enterprises.

According to the interviews, the most common supporters of the building of innovation potential are higher education units and regional development companies (Table 5.3). As regards development companies, the development of the innovation potential of enterprises is emphasised in accordance to their basic operation, and the respective focus of polytechnics and universities is on the production of degrees and the development of higher education. In accordance to the strategies of the Ministry of Education, in the projects implemented by universities, the role of the intermediate organisation⁹ relating to the so-called third task is emphasised in the promotion of the innovation system (Koskenlinna, 2004). This manifests as strong connections between the projects implemented by universities and the development of R&D services, the building of innovation networks, and the development of innovation potential of enterprises.

5.4 ESF projects in the support for regional innovativeness

21% of the projects interviewed aimed at strengthening innovativeness. Measuring by the amount of public funding for the projects, 22% of the resources had been tied to projects supporting the utilisation (cycle 2) of innovation potential (Table 5.4). The resources have been distributed

quite evenly in projects between the different sectors of the development of innovativeness, i.e. the promotion of business know-how, productisation and product development, and the diffusion of innovations in enterprises. Only 8% of the projects in support of innovativeness aimed at promoting the cooperation between central and peripheral areas. This indicates the harsh fact that innovation networks are typically oriented towards the central areas.

Measured by both funding and the number of projects, interventions aiming at the promotion of innovativeness are emphasised to a smaller extent in Central Finland than in the other provinces. Compared to other pilot provinces, the project work in Päijät-Häme is particularly focused on the support of productisation and product development, and the diffusion of innovations¹⁰. Looking at different administrative sectors, the development of innovativeness in the enterprise sectors is naturally emphasised in the administrative sector of the Ministry of Trade and Industry (Appendix 3).

Table 5.5 presents the central actors related to the support of innovation potential. The promotion of innovativeness is most strongly emphasised in the projects implemented by development companies, enterprises, and business departments. In projects implemented by development companies and enterprises, all sectors are emphasised to a much larger extent than on average. As regards projects by universities and development companies, supporting the utilisation of innovation potential is closely connected to intermediate organisation activity, including business incubator services.

⁹ In innovation literature, intermediary organisations represent several different types of organisations from public administration to private sector organisations and enterprises. They promote the operation of the innovation process by providing and transmitting know-how in all stages of the innovation process from the idea to the development stage, and further in the marketing. They have been created to correct the deficiencies in the functionality of the innovation environment. They belong to the scope of public innovation policy because a large part of their business income is directly or indirectly based on public project funding (Koskenlinna, 2004). It needs to be noted that in this context intermediary organisation does not refer to the concept in the ESF context, in which it means an organisation acting as the implementing body of the project and directing funding to small actors carrying out operations.

¹⁰ In the support of innovativeness, there were no statistical differences between the provinces. The significant statistical differences in the sectors of the support of innovativeness were the major emphasis in Satakunta on the development of business know-how and the respective minor emphasis on the promotion of the diffusion of technological innovations (Appendix 3).

Table 5.3 ESF actors in projects supporting the development of innovation potential (cycle 1)

Implementing organisation	number	Supporting innovation potential	SECTOR (non-exclusive)			
			Higher education and research	R&D - services	R&D - networks	Innovation potential of enterprises
Higher education institute	n=69	64 %	51 %	19 %	12 %	29 %
Adult education unit	n=14	7 %	0 %	7 %	7 %	0 %
Other educational institution / municipal education and training consortium	n=65	8 %	2 %	0 %	0 %	6 %
Municipal organisation unit	n=20	15 %	10 %	10 %	5 %	5 %
TE centre, labour department	n=5	20 %	0 %	0 %	0 %	20 %
TE-centre, business department	n=2	0 %	0 %	0 %	0 %	0 %
Employment office	n=6	0 %	0 %	0 %	0 %	0 %
Other public sector unit	n=18	11 %	6 %	0 %	0 %	6 %
Development company	n=15	47 %	7 %	0 %	0 %	47 %
Third sector	n=12	0 %	0 %	0 %	0 %	0 %
Enterprise	n=11	9 %	0 %	0 %	0 %	9 %
Total	N=237	27 %	17 %	7 %	4 %	15 %

Table 5.4 Connection of ESF projects with the promotion of innovativeness (cycle 2)

Factor of regional innovativeness (N=237)	Promotion of factors by the number of projects (%)	Focus of content
Business know-how of enterprises	25 (11)	Development of the business know-how of enterprises
Productisation and product development	21 (9)	Concrete support of the product development of enterprises and promotion of productisation
Diffusion of technological innovations (enterprise sector)	23 (10)	Promotion of the technological know-how of enterprises and support of the diffusion of innovations (e.g. support of the conditions for electronic business, technology consulting, technological solutions in production systems)

The most significant effects of the projects aiming at the support of innovativeness are connected, in accordance with the actions, to the development of the business know-how of enterprises. The effects of the projects examined on the development of the business know-how of enterprises have mainly been comprehensive with a specific emphasis on the development of marketing know-how. In addition to the development of business know-how, the projects have had effects on the improvement of productisation and product development know-how of enterprises. On the other hand, only in a marginal share of the projects has the result been concrete improvement in products, for instance. The majority of the effects of the diffusion of technological innovations have been connected through the development of know-how to the ability of enterprises to apply and adopt new innovations, which is typical for ESF activity. In addition to this, however, the promotion of technological investments especially through consulting and the development of the production systems of enterprises have been emphasised in the projects. The most significant single area of application has been the promotion of the diffusion of ICT and environment technology into delivery chains and subcontracting systems, for instance.

5.5 Role of ESF projects in the promotion of the regional realisation of innovativeness

A central challenge in the support of the innovation system besides the promotion of innovation potential and the utilisation of innovativeness is the promotion of more extensive utilisation and realisation of innovativeness in the regional economy (cycle 3). According to the interviews, only 8% of the projects aimed at the promotion of the realisation of innovation activity through extensive industry development, vertical and horizontal networking, and the support of growth entrepreneurship (table 5.6). 7% of the public sector funding was allocated to these projects. The more extensive utilisation of innovativeness was principally connected to the development of

subcontracting systems, which, according to research, has an important role in the transfer of knowledge and know-how and in the creation and utilisation of innovations (Lievonon & Lemola, 2004; Koschatzky & Sternberg, 2000). This is largely explained by the fact that enterprises can often increase the effectiveness of their production system only if subcontractors are capable of producing new/renewed products to the markets. On the other hand, stronger horizontal orientation in development would enable innovations of technological industries to be applied in the traditionally strong sectors and the service sector, for instance.

The support of realisation is emphasised to an equally small extent in all pilot provinces, and we can hardly make any conclusions on the differences between sectors because of the small number of projects connected to the support of realisation. Comparing different administrative sectors, however, it is evident that realisation is supported in the projects in the administrative sector of the Ministry of Trade and Industry, following the principal lines and functions of the administrative sector (Appendix 3).

According to the interviews, the most important project actors supporting realisation are regional development companies, adult education units, and enterprises (table 5.7). The role of development companies is also emphasised strongly in all sectors - in extensive industry development, in vertical and horizontal networking, and in the support of growth enterprises.

In those few projects that have aimed at the support of more extensive realisation of innovativeness, actions have mainly been directed at extensive industry development, vertical and horizontal networking, and the support of growth entrepreneurship. Especially the development of vertical networking combined with the support of innovativeness has enabled the methods and production processes of whole subcontracting chains to be changed. On the other hand, through horizontal networking, for instance, combining different kinds of know-how (e.g. technology and design) has been supported to realise innovations of enterprises in different lines of business. The moves implemented can act as pilot operations in the

Table 5.5 ESF actors in projects promoting the innovativeness of enterprises (cycle 2)

Implementing organisation	number	Promoting innovativeness	SECTOR (non-exclusive)		
			Business know-how	Productisation and product development	Diffusion of innovations
Higher education institute	n=69	23 %	9 %	10 %	10 %
Adult education unit	n=14	29 %	14 %	7 %	7 %
Other educational institution / municipal education and training consortium	n=65	6 %	2 %	2 %	3 %
Municipal organisation unit	n=20	15 %	10 %	5 %	20 %
TE centre, labour department	n=5	40 %	40 %	0 %	0 %
TE centre, business department	n=2	50 %	50 %	50 %	0 %
Employment office	n=6	0 %	0 %	0 %	0 %
Other public sector unit	n=18	11 %	0 %	6 %	11 %
Development company	n=15	67 %	44 %	25 %	31 %
Third sector	n=12	0 %	0 %	0 %	0 %
Enterprise	n=11	46 %	36 %	46 %	18 %
Total	N=237	21 %	11 %	9 %	10 %

Table 5.6 Promotion of the regional realisation of innovativeness (cycle 3)

Factor of the promotion of the regional realisation of innovativeness N=237	Promotion of factors by the number of projects (%)	Focus of content
Extensive industry development	2 (1 %)	Extensive industry-specific development projects
Vertical networking	13 (6 %)	Development and streamlining of the subcontracting networks of enterprises
Horizontal networking	8 (3 %)	Supporting the horizontal networking of enterprises and seeking synergy
Supporting growth enterprises	5 (2 %)	Recognising the growth potential of enterprises and supporting growth enterprises

further development of the operation of the public sector in this field.

The minor emphasis on the support of more extensive realisation of innovations in the regional economy (cycle 3) is partly related to the fact that it can be assumed to be much more challenging than the building of innovation potential (cycle 1) and the promotion of innovations of single enterprises (cycle 2). This is particularly evident in the projects interviewed. In some of the projects aiming at the development of innovation potential and innovativeness, more extensive support of realisation was pursued e.g. by developing subcontracting networks, but this simply did not succeed, and they had to compromise the objectives in this regard. In fact, it seems that there are no methods effective enough in the support of realisation, and for this reason the actual operations

include only the support of innovation potential and innovativeness, regardless of greater objectives. Effects may be brought about in single enterprises, but wider synergy is not attained, and the results therefore remain below the expectations from a regional economic point of view. In future actions aiming at supporting the realisation of wider innovations, it should be ensured that enterprises have the sufficient capabilities to utilise the know-how and innovation potential produced by universities, for instance. Also, effective, comprehensive development of the innovation system requires a strong mutual trust, a common mission, and a true will of development between the actors in the innovation system. This would be supported by the transition from cooperation in the project level to permanent, strategy-based practices and methods of cooperation.

Table 5.7 ESF actors in projects promoting regional realisation of innovativeness (cycle 3)

Implementing organisation	number	Promotion of regional realisation	SECTOR (non-exclusive)			
			Extensive industry development	Vertical net-working	Horizontal net-working	Support of growth enterprises
Higher education institute	n=69	6 %	0 %	4 %	7 %	1 %
Adult education unit	n=14	21 %	0 %	21 %	0 %	0 %
Other educational institution / municipal education and training consortium	n=65	2 %	0 %	0 %	0 %	0 %
Municipal organisation unit	n=20	0 %	0 %	0 %	0 %	0 %
TE centre, labour department	n=5	20 %	20 %	0 %	0 %	0 %
TE centre, business department	n=2	0 %	0 %	0 %	0 %	0 %
Employment office	n=6	0 %	0 %	0 %	0 %	0 %
Other public sector unit	n=18	6 %	0 %	6 %	0 %	6 %
Development companies	n=15	41 %	7 %	29 %	13 %	13 %
Third sector	n=12	0 %	0 %	0 %	0 %	0 %
Enterprise	n=11	18 %	0 %	9 %	9 %	18 %
Total	N=237	8 %	1 %	6 %	3 %	2 %

5.6 Continuity of the innovation process

Securing the continuity of innovation processes increases the probability that the basic investments in the enterprise sector and interventions of the public sector will realise as competitiveness and growth of single enterprises, industries, and clusters. This shows in regional economies as improved employment, vitality of entrepreneurship, and increased regional competitiveness. Figure 5.2 presents the activities related to the development of innovation potential and the support of the utilisation of innovation potential and innovativeness

in the projects interviewed. According to the results, projects that focused only on the support of regional innovation potential or innovativeness were most common both in terms of finance and the number of projects. The most significant combinations of innovation cycles are found between innovation potential and innovativeness and as a combination of innovation potential and innovativeness. 7% of the projects (measured by finance, 11%) aimed at supporting all cycles simultaneously.

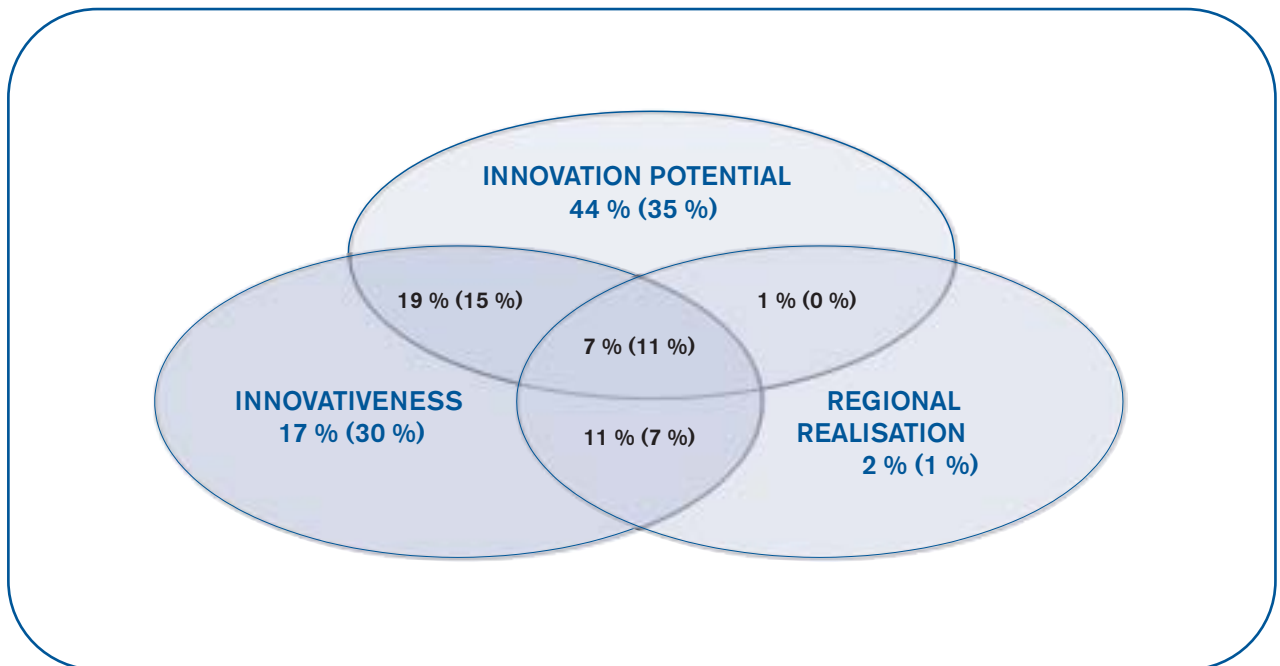


Figure 5.2 Combinations of innovation cycles in the projects n=92, number % (ESF + government %)

5.7 Central outcomes relating to the connection of the projects with the innovation system

The development of the innovation system can be divided into three cycles following each other seamlessly - (1) the strengthening of innovation potential, (2) the transmission of innovativeness, and (3) the regional realisation of innovations. ESF project activity has its own role in the promotion of the above-mentioned cycles. Four central outcomes can be derived from the connection between ESF projects and regional innovation systems.

- (1) In spite of the very limited number of ESF projects aiming at actual promotion of R&D activity, project activity has its own strong role in the support of regional innovation systems also through other types of projects.
- (2) The development of innovation potential and innovativeness has been oriented towards the central areas, as expected. Further, as a principal rule the projects in support of the development of the innovation system have not aimed at the development of the cooperation between central and peripheral areas.
- (3) In ESF projects the development of the innovation system is strongly focused on the support of the innovation potential and innovativeness of regions. More extensive support of the utilisation of regional innovativeness, on the other hand, is emphasised in the projects to a clearly smaller extent.
- (4) Securing the continuity of innovation processes is a key factor in the success of the realisation of innovation potential and innovativeness. The majority of the projects, however, have concentrated on supporting the processes of only one cycle.

6 Conclusions and suggestions

The ESF Decree defines clear objectives for the development of education and employment services through projects. On the other hand, through the development of the know-how capital, set as an objective in the ESF frame of reference, ESF projects strongly connect to the promotion of regional innovation systems as well. *The connection of ESF projects with innovation activity thus becomes twofold - innovations are created in the projects themselves, and on the other hand, the projects contribute to the development of regional innovation systems.*

The third intermediate report of the ALUEOSAAJA survey aims, on the basis of the aforementioned premises, at answering the following questions: (1) what kind of innovations arise in ESF projects, where do they come from, and how are their diffusion and continuity secured? (2) how are ESF projects connected to the development of the regional innovation system, and what role do the implemented interventions have in them? (3) How can the production of innovations in ESF projects and the role of ESF projects in the innovation system be further strengthened?

6.1 Innovation activity in ESF projects

Innovation activity in ESF projects is mainly related to the development of services and systems aiming at the promotion of education and employment. The production of innovations usually takes place in universities and other educational institutions, municipal organisations, and development units. *In the whole, it can be stated that innovation activity is strongly focused on making the operation of the public sector more effective.*

Innovation activity in ESF projects is focused on making operations more effective in the fields of employment and the development of know-how especially through incremental (developing) innovations. In addition to developing innovations, the projects have produced new services and sought new customers on a smaller scale. *Therefore, innovation activity in ESF projects is mainly developing.*

Innovation activity has been strongly lead by problems detected both inside and outside the developing organisation. Innovations, on the other hand, have for the most part been developed within

the organisations, without applying existing innovations in a new operating environment (in the developing organisations). *Therefore, innovation activity in ESF projects follows closely the focuses chosen on the national level while taking into consideration the individual starting points of the developing organisations.*

Innovations produced by the projects have mainly been based on learning and development work within and between organisations. Through learning and development work between organisations, the activity includes a dimension of social innovations. Through social innovations the actors pursue common changes in the ways and models of action. *In the innovation activity of ESF projects focusing on the development of services, the role of social innovations is therefore strongly emphasised.*

The objective of the projects is to further develop and distribute the innovations produced. On the other hand, distribution channels have not been sufficiently considered in the projects. The further development of innovations and the receiving of feedback have supported the accumulation of knowledge. Development work is done in cooperation with other organisations, and there is continuity through internal development, but from the viewpoint of the distribution of innovations, there is a danger of remaining on the level of "inner-circle development". *On the basis of the results, it seems that the innovations produced through ESF projects are not utilised in the most effective way.*

6.2 Towards ESF project activity based on innovations

Radical innovations - a window of possibilities.

Innovation activity in ESF projects is mainly based on gradual development processes (incremental innovations), in which new service or organisation ideas are added and connected to existing processes. Even radical innovations arise in ESF projects, albeit rarely, opening new possibilities for innovation activities. However, these "windows of possibilities" are particularly important as regards both the development of the know-how capital and the more effective promotion of employment. The ability to respond dynamically to the changes in the operating environment at the right time and in a sufficiently radical way is an indication of the learning capability of organisations. In connection with ESF project activity this means reforms particularly in the public sector organisations. New moves include great opportunities. At the same time they include significant risks of failure, which partly explains their small number. Masterpieces are rare but extremely valuable. Controlled risks should in fact be increasingly taken in future programmes to produce genuine, competitive new service and organisation innovations. In practice this could mean that a portion of the funding should be allocated to the production of risky radical innovations in the developing organisations.

Suggestion:

- Project funding should wilfully be added to the production of creative, even risky innovations aiming at more effective education and employment.

Concretising innovation activity in the projects.

The strategic premises of ESF, both through the decree and the national frame of reference, emphasise the developing and innovative nature of the activity. The definition of the innovativeness content of the projects, as regards both the objectives and the monitoring, has so far remained at the level of separate, fairly general definitions. Because of this the innovativeness of ESF activity is

often criticised and underrated. In the future it should in fact be defined in more concrete terms what is meant by innovation activity taking place in the projects, both as concerns the setting of objectives and the monitoring. While the innovation activity in the projects is mainly concerned with the innovation processes of the public sector, an applicable way would be to utilise the classifications of bases and typologies of innovations used in this evaluation. This method would help the adoption of innovation activity taking place in the projects and make the wider utilisation of innovations more effective. Through proper monitoring of innovations, a basis would be created for the charting of good methods. Also, regarding different types of innovations, it is relevant to analyse various factors as concerns both profitability and effectiveness.

Suggestion:

- The innovation activity being pursued and taking place in the projects should be made transparent and defined in more concrete terms using simple but systematic typologies. The information content on innovations produced through monitoring should be developed so that it could be actively utilised for further development and further application of innovations.

More effective utilisation of social innovations.

There has been a great deal of cooperation between different actors in the production of innovations in ESF projects. Social innovations can be regarded as a central instrument in the production and diffusion of innovations. Social innovations are the basis for successful production and utilisation of innovations, the feedback system relating to the innovation process, and further development of innovations. The development of social innovations is cumulative. While adding new perspectives and ideas, they reform the participating institutions. Further, the reformed institutions are more open to new perspectives and ideas. Thus, the renewal of public sector actors is closely connected to social innovations. In the future, specific attention should be paid to the aforementioned cumulative learning

process. In practice this means that the continuity of the social innovations and cooperative processes launched through project activity should be secured after the end of the projects. The social innovations developed in the projects should be considered a starting point of a long-span learning process continuing after the projects.

Suggestion:

- As of the early stages of the projects, more attention should be paid to securing the continuity of the learning process as concerns social innovations and cooperation structures developed through project activity. Considerable amounts of project resources should also be allocated to this use.

Three key factors of innovativeness.

Three key factors can be considered the starting point of a successful service innovation: (1) demand-orientation, (2) substance know-how, and (3) development know-how. Demand-orientation helps the diffusion of innovations into practice. Substance know-how ensures that the innovation is realistic and practical. Development know-how, on the other hand, is needed in order to implement the innovation process in the proper way from background surveys to testing, introduction, and establishment. The realisation of the above-mentioned starting points should be ensured especially as concerns projects aiming at risky innovations.

Suggestion:

- As regards innovation activity taking place in the projects, it should be ensured in the decision stage that the innovation process is based on demand-orientation, sufficient substance know-how, and development know-how.

Concretising continuity.

The ESF projects under examination have paid great attention to the importance of the distribution of the results and the continuity of the development processes launched. In the majority of the projects, both the above-mentioned sectors were considered important, and from the point of view of setting objectives, it

can be stated that the projects aim at recursive continuity in which further development and distribution are in close interaction. However, the picture of the ideal situation created by setting objectives weakens when the concrete activity relating to continuity is more closely analysed. This applies particularly to the distribution of innovations and good practices produced. In the projects under examination, distribution channels were concretised only to a limited extent, and also the channels named became quite superficial, including mainly publications and other non-interactive forms of distribution. As concerns innovations produced in the projects, specific attention should be paid in the future to the way to ensure wider diffusion. It should be concretely defined as early as the planning stage of the projects how to ensure the continuity of the innovations developed/produced in the projects. As concerns distribution, the focus should be moved to a more interactive direction, i.e. from communication to active further development and utilisation.

Suggestion:

- As concerns the distribution and further development of the innovations produced in the projects, particular attention should be paid to the concreteness and quality of the plans. True wider application of innovations requires as its basis an active interaction process between the producer and the utiliser.

6.3 Integration of ESF activity into the regional innovation system

ESF projects promote the operation of the higher education system and research units, the development of the innovation potential of enterprises, the productisation and commercialisation of innovations, and the wider regional utilisation of innovativeness. *As a whole, the role of ESF project activity in the different development stages of the innovation system can be characterised as creating and contributing preferable conditions.*

Despite the limited number of ESF projects aiming at actual promotion R&D activity, project activity has its own strong role in the support of regional innovation systems. Project activity is strongly integrated into the development of regional innovation systems also through other than actual R&D projects. *In their entirety, the projects can be seen as strongly connecting to the development of the regional innovation system.*

The development of innovation potential and innovativeness has expectedly been oriented towards the central areas. Further, the projects aiming at the development of the innovation system have not as a principal rule pursued the development of the cooperation between central and peripheral areas. *The development of the innovation system is based on the support of regionally strong central areas, but the lack of cooperation between central and peripheral areas is a clear insufficiency in the projects.*

The development of the innovation system in ESF projects is strongly focused on the support of innovation potential and innovativeness. On the other hand, the more extensive support of innovativeness is emphasised to a much smaller extent. The support of the realisation of innovativeness has been more strongly on view in the setting of objectives than in the realisation. *On the basis of the above, ESF projects have a strong connection with the promotion of regional innovation potential and innovativeness. The contribution to wider realisation, on the other hand, is more challenging, and it has not been responded to in a convincing way.*

The securing of the continuity of innovation processes is an essential factor in the success of the realisation of innovation potential and innovativeness. The majority of the projects, however, have concentrated on the support of the processes of only one cycle. *The success of the role of ESF project activity supporting regional innovation systems largely depends on how well continuous innovation processes are reached through separate projects and combinations of other forms of support.*

6.4 Further development of the connection with the regional innovation system

Securing the continuity of innovation chains. ESF activity includes many elements aiming at the promotion of research and development activity, the development and diffusion of technology, and the creation and commercialisation of innovations. The support of the development of advanced innovation networks is aimed at through the promotion of innovativeness and target-oriented networking. Often, however, the actions remain separate from each other and especially from the development activity implemented under other programme entities. The support measures aiming at the development of regional innovation systems should form a whole in which different instruments have different roles while supporting and complementing each other (figure 6.1).

At the same time as the development of innovation systems aims at an integrated approach as concerns actions in the public sector, stronger profiling is also needed as concerns different instruments. As regards ESF activity, it should be seriously considered what the general role of the activity should be in the development of innovation

systems. The setting of questions inevitably leads to the discussion of the social dimension from the original perspectives of employment and the prevention of exclusion. The lines of employment policy should be regarded as the starting points of the activity. The extent to which the development of the innovation system is related to this problem is mainly connected to the time perspective. Long-span, forward-looking, and preventive employment policy indisputably connects to innovation policy and the development of innovation systems.

Starting from the current premises and the tentative lines for the upcoming programme period, an emphasis such as the present in the strengthening of regional innovation potential is very understandable and justifiable - an education and research system that creates people with top know-how and the capability of producing and utilising innovations is a critical factor in the operation of an innovation system. On the other hand, moving the focus towards systematic and extensive utilisation of innovativeness could be even more justifiable. The wider utilisation of innovations has become the bottleneck of innovation systems. In numerous estimations Finland has been ranked as the leading country in Europe as concerns e.g. innovativeness and the production of innovation

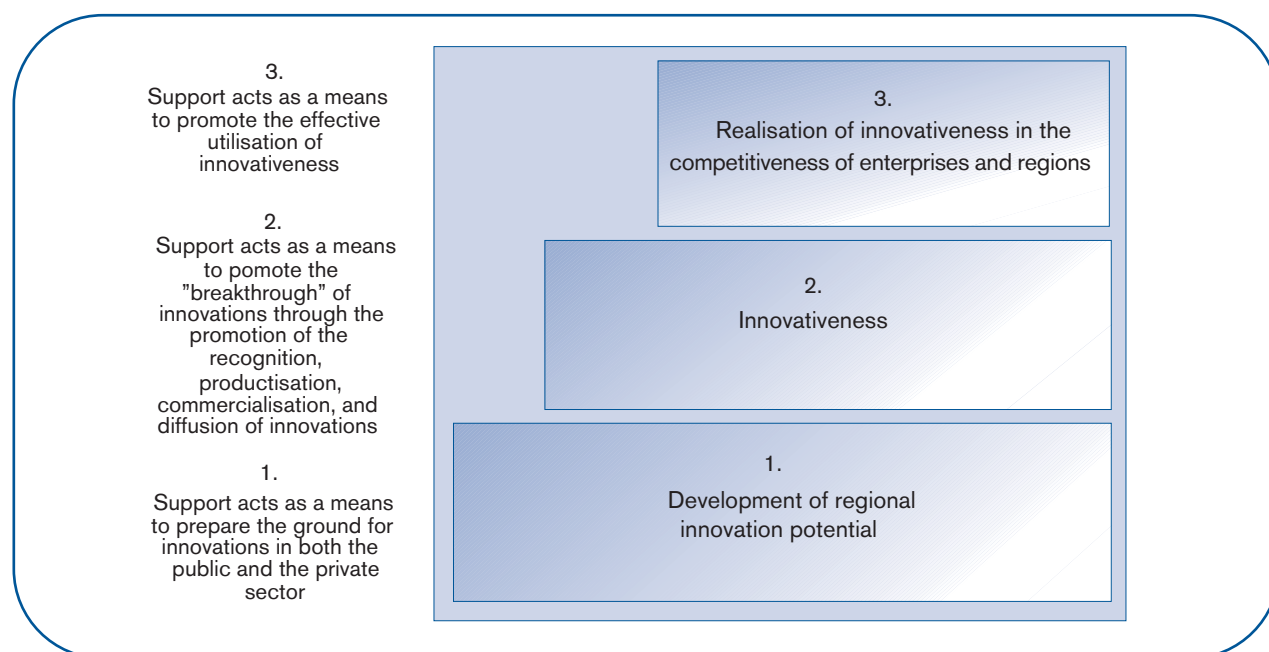


Figure 6.1 ESF projects at different levels of the innovation system

potential (cf. Brunila et al, 2004; Blanke & Lopez-Carlos, 2004). In spite of the commendations, the number of innovations leading to the creation of new enterprises, the successful commercialisation of products, strong growth of the enterprise sector, and significant increase of employment is not sufficient. The realisation of the above requires patience and wide-ranging groundwork in order to utilise innovations in a wide scale in regional economies and in the national level. If the activity is directed at the pursuit of immediate results, the whole idea of the integrated development of innovation systems suffers.

Suggestion:

- As regards the role of ESF activity in support of innovation processes, it should be ensured in the future that the supported stage is part of a continuous innovation chain supported e.g. by other public funding. As regards allocation, the move of the focus towards the challenge of the wider utilisation of innovativeness should be considered. As regards the support of innovation processes, the time of their realisation should be taken into account in order to prevent distortion in the allocation of resources.

Work productivity as a cornerstone of ESF innovation activity. ESF activity in Finland is seamlessly integrated into the targeting of structural funds. The activity aims to influence the growth of productivity and employment while promoting balanced regional development. The instruments connected to the development of the regional innovation system of the ESF are particularly targeted at the increase in work productivity by developing know-how capital and technological know-how. The increase in employment, on the other hand, realises through increased competitiveness and production capacity of enterprises, which are results of work productivity (Figure 6.2). This basic idea applies for the fields of both high technology and low productivity. The same idea should also be more clearly accepted in the strategy level. The immediate improvement of employment should not be set as an immediate objective regarding all forms of support, but it should rather be perceived as a long-term outcome of increased work productivity.

Suggestion:

- In addition to direct employment measures and creation of jobs, more attention should be paid to the overall benefits received from increasing

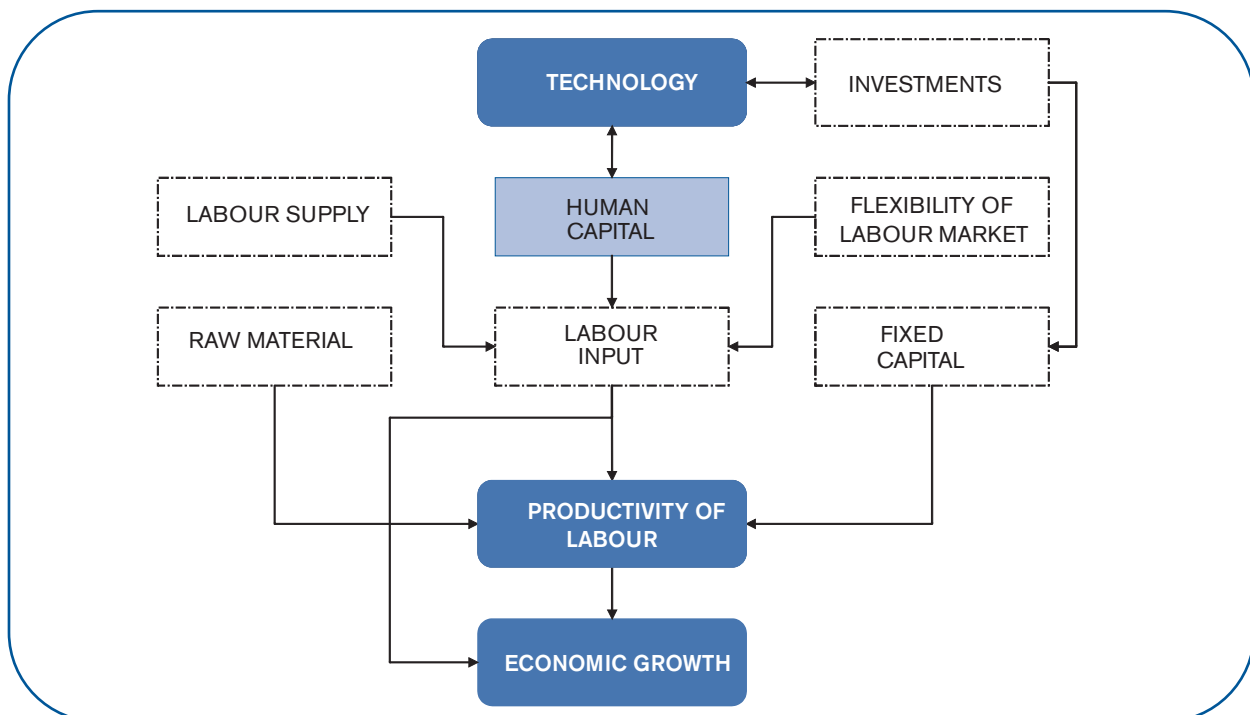


Figure 6.2 Integration of ESF activity into the overall objectives of structural fund activity

work productivity, also from the viewpoint of employment.

Specifying and profiling the role of the actors in the regional innovation system. The realisers of ESF project activity are part of a complex of regional innovation systems. One prerequisite for the success of project activity is that the roles and responsibilities of different actors in regional innovation systems are as clearly defined as possible. This increases trust and cooperation potential between actors. Perhaps the most essential challenge in the division of roles between actors in innovation systems is the profiling of heterogeneous intermediary organisations¹¹. Intermediary organisations represent several different types of organisations from public administration to private sector organisations and enterprises. Their purpose is to promote widely the operation of the innovation process by providing and transmitting special know-how in all stages of the innovation process from the idea to the development stage, and further in the marketing. To put it in simple terms, their role is to correct functional deficiencies in the innovation environment. They belong to the sphere of public innovation policy because a large part of their business income is directly or indirectly based on public project funding (Koskenlinna, 2004). At the moment, however, numerous intermediary organisations aim at operating in the same roles, causing somewhat ineffective use of resources through overlapping operations and unhealthy competition. Also in the implementation of ESF projects, the profiling of different actors to their characteristic fields of operation in the development of innovation systems should be supported in future.

Suggestion:

- Generally, and therefore also as concerns ESF project activity, the roles of the actors in regional innovation systems should be profiled in order to

prevent ineffectiveness and competition causing social harm, particularly in the case of intermediary organisations.

The limited scope of public activity. In the building of home bases for innovations, it is worth the effort to re-enact the limited scope of public influencing. The possibilities of the public sector in the building of innovation systems and the competitiveness of enterprises are only marginal, indirect, and time-consuming. The significance of different development instruments of the public sector in proportion to the increase in value, for instance, is very restricted, and taking into account the instruments of extensive regional policy, only moderate. The fundamental question is how effectively different support instruments can be used through choices concerning regions, industries, and actions, among other things. As a whole the public sector influences the operation of the innovation system, especially as concerns the utilisation of innovativeness, mainly indirectly. The public sector creates a favourable ground for the utilisation of innovativeness and supports developing enterprises through various actions, but the rest depends on how viable the target enterprises are. Even if the actions in the public sector were targeted as effectively as possible, time is needed. In fact, final results cannot be measured in a few years but rather in a few decades.

Suggestion:

- In the setting of objectives for project activity and in the measuring of its productivity, attention should be paid to the limited scope of the possibilities of influencing in the public sector, also as concerns the development of innovation systems. Healthy realism helps to allocate resources more effectively and to produce long-span development processes.

¹¹ It needs to be noted that in this context intermediary organisation does not refer to the concept in the ESF context, in which it means an organisation acting as the implementing body of the project and directing funding to small actors carrying out operations.

Bibliography

- Alarinta, J. (1998). Maaseutu innovatiivisena ympäristönä - Verkostot paikallisen elinkeinopolitiikan toteuttajina (Rural Areas as an Innovative Environment - Networks as Realizers of the regional Economic Development). Publications of Ruralia Institute A:4. Seinäjoki. (In Finnish).
- Blanke, J. & Lopez-Carlos, A. (2004). The Lisbon Review 2004 - An Assessment of Policies and Reforms in Europe. http://www.weforum.org/pdf/Gcr/LisbonReview/Lisbon_Review_2004.pdf.
- Brunila et. al (2004). Osaava, avautuva ja uudistuva Suomi (Skilful, opening and Renewing Finland). Publications of the Prime Minister's Office 19/2004. Helsinki: Edita Oyj. (In Finnish).
- Clark, A. (1985). Longman Dictionary of Geography: Human and Physical Terms Explained.
- Cooke, P. (1998). Introduction: Origins of the Concept teoksessa Braczyk, H., Cooke, P. & Heidenreich, M (ed.) Regional Innovation Systems. London: UCL press,
- Cooke, P., Roper, S. & Wylie, P. (2003). The Golden Thread of Innovation and Northern Ireland's Evolving Regional Innovation System. *Regional Studies* 37 (4):365-379.
- Coombs, R., Naranden, P. & Richards, A. (1996). A Literature-based Innovation Output Indicator. *Research Policy* 25:403-413.
- Davelaar, E.J. & Nijkamp, P. (1989). Spatial Dispersion of Technological Innovation: A Case Study for the Netherlands by Means of Partial Least Squares. *Journal of Regional Science* vol. 29: 3.
- EC (1995). European Commission (1995). Green paper on innovation.
- EC (2000). Commission of the European Communities: Innovation in a knowledge-driven economy. Communication from the Commission to the council and the European parliament COM (2000) 567 final. Brussels 20.9.2000.
- EC (2001). First Annual Report on the Implementation of Innovative Measures under European Social Fund Regulation during 2001. Presented to the ESF Committee on 13.12.2001.
- EC (2003a). Commission of the European Communities: Innovation policy - Updating the Union's approach in the context of the Lisbon Strategy. Communication from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of The Regions COM (2003) 112 final. Brussels 11.3.2003.
- EC (2003b). Choosing to Grow: Knowledge, Innovations and Jobs in a Cohesive Society. Report to the Spring European Council, 21 March

- 2003 on Lisbon Strategy of Economic, Social and Environmental Renewal. COM (2003) 5 Final. Brussels 31.3.2003.
- EC (1999). Evaluating Socio-Economic Programmes, MEANS Collection vol. 1-6. Luxembourg: Office for Official Publications of the European Communities.
- EC (2003c). Extracts from Presidency Conclusions on the Lisbon Strategy by Theme. http://europa.eu.int/comm/lisbon_strategy/index_en.html.
- EC (2005a). Lisbon Action Plan Incorporating EU Lisbon Programme and Recommendations for Actions to Member States for Inclusion in their National Lisbon Programmes. SEC (2005) 192.
- EC (2005b). Communication to the Spring European Council - Working Together for Growth and Jobs, A New Start for the Lisbon Strategy. COM (2005) 24.
- European Communities (1999a). Council Regulation (EC) No 1260/1999 of 21 June 1999 on laying down general provisions on Structural Funds. Official Journal of the European Communities L 161, pp. 1-42.
- European Communities (1999b). Council Regulation (EC) No 1262/1999 of 26 June 1999 on the European Social Fund. Official Journal of the European Communities L 161, pp. 48-53.
- Heikkilä, T. (1998). Tilastollinen tutkimus (Statistical Research). Helsinki. (In Finnish).
- Järvinen, J., Koskinen, I., Korvenmaa, P., Salovaara, J., Hytönen, J. & Kotro, T. (2001). Industrial Design as a Culturally Reflexive Activity in Manufacturing. Sitra reports 15. Helsinki.
- Kimberley, J.R. (1981). Managerial Innovation. In Nyström, P.C & Starbuck, W.H. (ed.). Handbook of Organisational Design vol. I. Oxford: Oxford University Press.
- Koschatzky, K. & Sternberg, R. (2000). R&D Cooperation in Innovation Systems - Some Lesson from the European Regional Innovations Systems (ERIS). European Planning Studies vol 8:4.
- Kolehmainen, S. (1997). Innovaatioiden diffuusio ammattikorkeakoulureformissa (The Diffusion of Innovations in the Reform of Polytechnics). Acta Universitatis Tampereensis 543. Vammala: Vammalan kirjapaino Oy. (In Finnish).
- Koskenlinna, M. (2004). Välittäjäorganisaatiot Suomessa - rakenteelliset haasteet. (Intermediary Organisations in Finland - Structural Challenges). http://ktm.elinar.fi/ktm_jur/. (In Finnish)
- Kuoppala, M., Virtanen, P., Anttiroiko, V-M. & Pantzar, E. (2003). Haasteena sosiaalinen innovatiivisuus (Social Innovativeness as a Challenge). Publications of the Ministry of Labour, Evaluations 1/03. Helsinki. (In Finnish).
- Koschatzky, K. & Sternberg, R. (2000). R&D Cooperation in Innovation Systems - Some Lessons from the European Regional Innovation Survey (ERIS). European Planning Studies, Vol 8 No. 4.
- Lievonen, J. & Lemola, T. (2004). Alueellisen innovaatiopolitiikan haasteita (Challenges of Regional Innovation Policy). Publications of the Ministry of Interior 16/2004. Helsinki: Suomen Printman Oy. (In Finnish)
- Lorenzen, M. (2001). Localised Learning and Policy in Maskell, P. (ed) Innovation and Learning for Competitiveness and Regional Growth. Nordregio Report 2001:4. Stockholm.
- Lundvall, B-Å (ed). (1992). National Systems of Innovations: Toward a Theory of Innovation and Interactive Learning. London: Printer.
- Lundvall, B-Å & Borrás, S. (1997). The Globalising Learning Economy: Implications for Innovation Policy. Luxembourg: European Communities.
- Maskell, P., Eskelinen, H., Hannibalsson, I., Malberg, A & Vatne, E. (1998). Competitiveness, Localized Learning and Regional Development. London: Routledge.
- Ministry of Education (2004). Koulutus ja tutkimus 2003-2008 - kehittämissuunnitelma (Education and Research 2003-2008 - Development Plan). Publications of the Ministry of Education 2004:6. (In Finnish).
- Ministry of Labour (2001). Euroopan sosiaalirahasto - Tiedon, työllisyyden, osaamisen, yrittäjyyden ja tasa-arvon eurooppalainen Suomi (European Social Fund - The European Finland of

- Knowledge, Employment, Know-how, Entrepreneurship and Equality).
- Ministry of Labour (2004). Työhallinnon toiminta- ja taloussuunnitelma 2006-2009 (The Action and Financial Scheme of Employment Administration for Years 2006-2009). <http://www.mol.fi>. (In Finnish).
- OECD (2001). Cities and Regions in the New Learning Economy. Paris: OECD.
- Osborne, S. P. (1998). Voluntary Organisations and Innovation in Public Services. London: Routledge.
- Palmberg, C. (2000). Sectoral Patterns of Innovation and Competence Requirements: A Closer Look at Low-Tech Industries. Sitra Reports 8. Helsinki.
- Prime Minister's Office (2003). Pääministeri Matti Vanhasen hallituksen ohjelma 24.6.2003 (The Finnish Government Programme 24.6.2003). <http://www.vnk.fi/vn/liston/vnk.lsp>. (In Finnish).
- Rogers, E. (1995). Diffusion of Innovations. 4th edition. New York: The Free Press.
- Ritsilä, J. & Haukka, J. (2003). ESR-hankkeet oppivan alueen toimintamallissa, väliraportti I (ESF projects in the Operational Framework of Learning Regions, Intermediate report I). Publications of the Ministry of Education 2003:7. Helsinki: Multiprint. (In Finnish).
- Ritsilä, J. & Haukka, J. (2005). ESR-hankkeet alueellisen osaamisen kehittämisessä - Hanketoiminnan vaikutuksia Satakunnan, Päijät-Hämeen ja Keski-Suomen maakunnissa, väliraportti II (ESF projects in Developing Regional Know-how - Effects of the Projects in Satakunta, Päijät-Häme and Central Finland). Publications of the Ministry of Education 2005:3. Helsinki: Yliopistopaino. (In Finnish).
- Rogers, E. (1983). Diffusion of Innovations. 3rd edition. New York: The Free Press.
- Rogers, E. & Shoemaker, F. (1971) Communication of Innovations. A Cross Cultural Approach. New York: The Free Press.
- Ruuskanen, P. (2004). Social Capital and Innovations in Small and Medium Sized Enterprises. Paper presented at the DRUID summer conference 2004 on Industrial Dynamics, Innovation and Development, Elsinore, Denmark, June 14-16.
- Sahlsted, K. (1998). Tutkimus ja teknologinen kehittäminen EU:n rakennepoliitikassa (Research and Technological Development in the Structural Policy of EU). Finnish Liaison Office for EU R&D. Brussels.
- Science and Technology Policy Council of Finland (2002). Osaaminen, innovaatiot ja kansainvälistyminen (Competence, Innovations and Internationalisation). http://www.minedu.fi/tiede_ja_teknologianeuvosto/julkaisut/katsaus_2003.html. (In Finnish).
- Sitra (2002). Innovaatiojärjestelmän uudistumishaasteet. Kansallisen innovaatiojärjestelmän tutkimustuloksia ja johtopäätöksiä (The Regeneration Challenges of Innovation Infrastructure. Research Results and Conclusions on National Innovation System. Sitra Reports 25. Helsinki: Edita Prima Oy. (In Finnish).
- Tanewski, G. A. & Sohal, A. (2003). Strategic Orientation and Innovation Performance Between Family and Non-family Firms. A paper presented at the 48th World Conference of the International Council of Small Business, June 2003, Belfast.
- Walker, R. M., Jeanes, E. & Rowlands R. (2002). Measuring Innovation - Applying The Literature-based Innovation Output Indicator to Public Services. Public Administration vol. 80 No 1: 201-214.

Appendix 1

Classification of the main types of project (exclusive)

Main type of project ^(a)	
1. Actions aiming at the improvement of the career and life control of the unemployed	Projects that emphasise the activation of the unemployed, the development of career and life control, and the development of the related operation models (e.g. preparatory training, periods of work experience, the development and implementation of workshop activity)
2. Actions aiming at the development of the professional skills of the unemployed	Projects that emphasise the development of the professional skills of the unemployed (e.g. the development and implementation of labour policy education for the unemployed)
3. Direct employment measures aimed at the open labour market	Projects that emphasise the direct employment of the unemployed in the open labour market (e.g. supported employment, enterprise-specific customised training and the employment connected to it)
4. Actions aiming at the development of entrepreneurship	Projects that emphasise the development of entrepreneurship (e.g. development of the operating environment of enterprises, support of the founding of new enterprises, consulting, education, or counselling)
5. Actions aiming at the development of the operation of educational institutions	Projects that emphasise the development of the operation of educational institutions or the diversification of the education structure or supply (e.g. the development of study materials, study programmes, or working methods)
6. Actions aiming at the development of on-the-job training	Projects that emphasise the development of on-the-job training. This type includes projects aiming at the development of the on-the-job training system, the training of workplace instructors, working life periods for teachers, and the development of competence tests
7. Actions aiming at the promotion of research and development activity	Projects that emphasise the promotion of research and development activity (e.g. the founding of research units, the development of private or public research units, the promotion of research cooperation, and concrete research activity)
8. Actions aiming at the development of other parts of the public sector	Projects that emphasise the development of the public sector outside the other types (e.g. the development of the know-how of public sector personnel, the development of public services)

^(a) The main type of project is based on the responses of the project leaders and describes the main focus of the activity. Principal activity belonging to a main type may include activity of other sectors (e.g. development of entrepreneurship connecting to the promotion of R&D activity or to the employment of the unemployed and the development of their professional skills)

Appendix 2 Innovation activity taking place in the projects by province and by administrative sector

Table 1 Innovations in ESF projects by province and by administrative sector

	Number of projects	Total	Expansive	Evolution-ary	Developing	Innovation index
Satakunta	(n=84)	5 %	2 %	16 %	36 %	105
Päijät-Häme	(n=64)	13 %	3 %	11 %	25 %	95
Central Finland	(n=89)	9 %	0 %	6 %	40 %	100
Ministry of Trade and Industry	(n=12)	8 %	0 %	8 %	0 %	31
Ministry of Education	(n=98)	17 %	0 %	8 %	48 %	122
Ministry of Labour	(n=94)	6 %	2 %	12 %	29 %	87
Ministry of the Interior	(n=27)	11 %	7 %	19 %	22 %	107
Ministry of Social Affairs and Health	(n=6)	0 %	0 %	0 %	33 %	60
All	(N=237)	8 %	2 %	11 %	35 %	100

Table 2 Funding allocated to projects that produced innovations by province and by administrative sector

	Funding for the projects € million	Total	Expansive	Evolution-ary	Developing	All
Satakunta	31	2 %	0 %	15 %	50 %	67 %
Päijät-Häme	24	12 %	2 %	17 %	32 %	63 %
Central Finland	32	6 %	0 %	3 %	39 %	48 %
Ministry of Trade and Industry	3	5 %	0 %	6 %	0 %	11 %
Ministry of Education	26	11 %	0 %	8 %	51 %	70 %
Ministry of Labour	52	3 %	1 %	13 %	38 %	56 %
Ministry of the Interior	4	10 %	3 %	24 %	35 %	72 %
Ministry of Social Affairs and Health	2	0 %	0 %	0 %	41 %	41 %
All	87	6 %	1 %	12 %	41 %	59 %

Table 3 Interactive learning in public sector innovations by province and by administrative sector

	Number of projects	Principally based on learning and development work within the organisation (%)	Based on learning and development work between different organisations (%)
Satakunta	(n=49)	35	65
Päijät-Häme	(n=33)	24	76
Central Finland	(n=49)	25	75
Ministry of Trade and Industry	(n=2)	100	0
Ministry of Education	(n=66)	27	73
Ministry of Labour	(n=45)	31	69
Ministry of the Interior	(n=16)	12	88
Ministry of Social Affairs and Health	(n=2)	50	50
All	(N=131)	28	72

Table 4 Continuity by province and by administrative sector in innovation projects

	Number	Processes have no continuity	Development-oriented continuity	Utilisation-oriented continuity	Recursive continuity
Satakunta	(n=49)	4 %	18 %	6 %	71 %
Päijät-Häme	(n=33)	3 %	9 %	12 %	76 %
Central Finland	(n=49)	4 %	10 %	18 %	67 %
Ministry of Trade and Industry	(n=2)	0 %	0 %	50 %	50 %
Ministry of Education	(n=66)	2 %	11 %	9 %	79 %
Ministry of Labour	(n=45)	9 %	16 %	16 %	60 %
Ministry of the Interior	(n=16)	0 %	19 %	6 %	75 %
Ministry of Social Affairs and Health	(n=2)	0 %	0 %	50 %	50 %
All	(N=131)	4 %	13 %	12 %	71 %

Appendix 3 Variables of the support of the innovation system by province and by administrative sector

Table 1 Building of innovation potential by province and by administrative sector (cycle 1)

	number	Support of innovation potential number % (ESF+Govt. €%)	Sectors of innovation potential % (non-exclusive)			
			Higher education and research	R&D-services	R&D-networks	Innovation potential of enterprises
Satakunta	(n=84)	24 (14)	11	8	1	6
Päijät-Häme	(n=64)	33 (32)	22	6	5	25
Central Finland	(n=89)	26 (20)	19	6	7	16
Statistical significance ^(a)		Chi ² =1.591	Chi ² =4.047 (p=.451)	Chi ² =1.594 (p=.132)	N/A (p=.451)	Chi ² =11.386 (p=.003***)
Ministry of Trade and Industry	(n=12)	25 (38)	17	8	8	25
Ministry of Education	(n=98)	33 (39)	27	6	8	19
Ministry of Labour	(n=94)	17 (10)	5	3	1	14
Ministry of the Interior	(n=27)	48 (39)	26	22	0	0
Ministry of Social Affairs and Health	(n=6)	0 (0)	0	0	0	0
All	(N=237)	27 (21)	17	7	4	15

^(a)Numbers of projects have been used in the statistical testing. Under sectors of innovation potential we have tested provincial differences in the projects aiming at the development of innovation potential (N=64). The results, therefore, indicate differences in emphasis in the projects aiming at the development of innovation potential. The tests cannot be used for administrative sectors because of presumptions.

Table 2 Promotion of innovativeness by province and by administrative sector (cycle 2)

	number	Promotion of innovativeness number % (ESF+govt. €%)	Sectors of innovativeness % (non-exclusive)		
			Business know-how	Productisation and product development	Diffusion of innovation
Satakunta	(n=84)	19 (33)	13	7	5
Päijät-Häme	(n=64)	28 (25)	9	14	14
Central-Finland	(n=89)	17 (12)	9	7	11
Statistical significance ^(a)		Chi ² =3.094 (p=.213)	Chi ² =5.854 (p=.054*)	Chi ² =0.613 (p=.736)	Chi ² =4.826 (p=.090*)
Ministry of Trade and Industry	(n=12)	58 (75)	50	8	17
Ministry of Education	(n=98)	17 (16)	3	7	10
Ministry of Labour	(n=94)	22 (24)	14	12	9
Ministry of the Interior	(n=27)	11 (11)	7	4	7
Ministry of Social Affairs and Health	(n=6)	17 (11)	17	17	17
All	(N=237)	21 (22)	11	9	10

^(a)Numbers of projects have been used in the statistical testing. Under sectors of innovativeness we have tested provincial differences in the projects aiming at the development of innovation potential (N=49). Therefore, the tests indicate possible differences in the projects aiming at the promotion of innovativeness. The tests cannot be used for administrative sectors because of presumptions.

Table 3 Promotion of regional realisation by province and by administrative sector (cycle 3)

	number	Regional pro- motion of reali- sation number% (ESF+govt. €%)	Sectors of the support of realisation % (non-exclusive)			
			Extensive industry development	Vertical networks	Horizontal networks	Growth enterprises
Satakunta	(n=84)	5 (4)	0	4	0	1
Päijät-Häme	(n=64)	9 (9)	2	6	6	3
Central Finland	(n=89)	10 (8)	1	7	5	2
Statistical significance ^(a)		Chi ² =1.897 (p=.387)	N/A	N/A	N/A	N/A
Ministry of Trade and Industry	(n=12)	33 (44)	0	25	17	0
Ministry of Education	(n=98)	6 (7)	1	6	5	1
Ministry of Labour	(n=94)	9 (6)	1	4	0	3
Ministry of Interior	(n=27)	0 (0)	0	0	0	0
Ministry of Social Affairs and Health	(n=6)	17 (11)	0	0	17	17
Kaikki	(N=237)	8 (7)	1	6	3	2

^(a)Numbers of projects have been used in the statistical testing. Under sectors of the support of realisation we have tested provincial differences in the projects aiming at the development of innovation potential (N=19). The results, therefore, indicate differences in emphasis in the projects aiming at the development of innovation potential. The tests cannot be used for administrative sectors because of presumptions.

Kuvailulehti

Julkaisija

Opetusministeriö

Julkaisun päivämäärä

. .2005

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Jari Ritsilä ja Jukka Haukka		Opetusministeriön julkaisuja	
		Toimeksiantaja	
		Opetusministeriö	
		Toimielimen asettamisppvm	Dnro
Julkaisun nimi (myös ruotsinkielinen)			
Innovaatiotoiminta Keski-Suomen, Päijät-Hämeen ja Satakunnan ESR.-hankkeissa - ALUEOSAAJA -hankkeen III väliraportti (Innovativ verksamhet i ESF-projekt i Mellersta Finland, Päijänne-Tavastland och Satakunta - tredje mellanrapporten om projektet ALUEOSAAJA)			
Julkaisun osat			
Tiivistelmä			
<p>Euroopan sosiaalirahasto (ESR) toteuttaa osaltaan Lissabonin (2000) strategiaa EU:n tasolla. Strategian mukaisesti jäsenvaltioiden tavoitteena on olla tietoyhteiskuntakehityksen kärjessä vuosikymmenen loppuun mennessä. Erityisesti innovaatiotoiminnan edistäminen on nähty avaintekijäksi tavoitteiden saavuttamisessa. Suomen ESR -viitekehityksessä ja sitä soveltavissa ohjelma-asiakirjoissa toiminnalle on asetettu suuria odotuksia sekä hankkeissa kehitettävien innovatiivisten toimintatapojen että innovaatiojärjestelmän edistämisen osalta. ESR -toimintaan kohdistuneet tarkastelut ovat kuitenkin melko heikosti kyenneet tuomaan esille sen, missä määrin hanketoiminta on täyttänyt nämä odotukset.</p> <p>Alueellisen osaamisen kehittäminen ja rakennerahastohankkeet -hankkeen (ALUEOSAAJA) käsillä oleva 3 väliraportti pureutuu Lissabonin strategian ytimeen. Väliraportti pyrkii vastaamaan seuraaviin kysymyksiin: (1) millaisia innovaatioita ESR -hankkeissa syntyy, mistä ne ovat lähtöisin sekä kuinka niiden diffuusio ja jatkuvuus on turvattu? (2) miten ESR -hanketoiminta niveltyy alueellisen innovaatiojärjestelmän kehittämiseen ja mikä rooli toteutetuilla interventioilla on siinä? (3) Kuinka ESR -hanketoiminnan innovaatiotuotantoa ja roolia innovaatiojärjestelmässä voitaisiin edelleen vahvistaa?</p> <p>Arvioinnin tulokset voidaan jakaa kahden erillisen teeman alle. Ensimmäiseksi, hankkeissa tuotettujen innovaatioiden näkökulmasta, toiminnassa painottuu vahvasti julkisen sektorin palvelutuotannon kehittäminen. Innovaatioiden tuottajia ovat lähinnä julkisen sektorin organisaatiot koulutuksen ja työllistämisen saralla, ja hankkeissa on tähdätty ESR -asetuksen mukaiseen toiminnan tehostamiseen ensisijaisesti kehitettävien (inkrementaalit) innovaatioiden kautta. Innovaatiotoimintaa on ohjannut sekä organisaatioiden sisältä että ulkopuolelta havaitut kehittämiskohteet. Innovaatiota on kehitetty lähinnä toteuttajaorganisaatioiden sisällä. Hankkeiden tuottamat innovaatiot ovat pääsääntöisesti perustuneet organisaatioiden sisäiseen ja väliseen oppimiseen sekä kehittämistyöhön. Valtaosassa tarkastelluista hankkeista tavoitteena on edelleen kehittää ja levittää tuotettuja innovaatioita. Toisaalta, hyödynnettäviä levittämiskanavia ei hankkeissa ole useinkaan pohdittu riittävästi.</p> <p>Toiseksi, ESR -hankkeet sidostuvat vahvasti alueellisten innovaatiojärjestelmien kehittämiseen. Hanketoiminnalla on oma vahva roolinsa innovaatiojärjestelmien kehittämisessä myös muiden kuin varsinaisten T&K -hankkeiden kautta. Kokonaisuudessaan innovaatiojärjestelmän kehittäminen on vahvasti painottunut ESR -hankkeissa alueiden innovaatiopotentialin ja innovatiivisuuden tukemiseen. Sitä vastoin laajempi alueellisen innovatiivisuuden hyödyntämisen ja realisoitumisen tukeminen painottuu selkeästi vähemmän. Innovaatioprosessien katkeamattomuuden turvaaminen on keskeinen tekijä innovaatiopotentialin ja innovatiivisuuden realisoitumisen onnistumisessa, mutta valtaosassa hankkeista on kuitenkin keskitytty ainoastaan tietyn osa-alueen prosessien tukemiseen. Innovaatiojärjestelmien kehittäminen on ollut odotetusti keskusalueorientoitunutta ja toiminnassa ei ole pääsääntöisesti pyritty keskus- ja reuna-alueiden yhteistyön edistämiseen.</p>			
Avainsanat (asiasanat)			
rakennerahastotoiminta, Euroopan sosiaalirahasto, arviointitutkimus, innovaatiot, osaamisen kehittäminen			
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Publikation (även den finska titeln) Innovativ verksamhet i ESF-projekt i Mellersta Finland, Päijänne-Tavastland och Satakunta - tredje mellanrapporten om projektet ALUEOSAAJA (Innovaatiotoiminta Keski-Suomen, Päijät-Hämeen ja Satakunnan ESR.-hankkeissa - ALUEOSAAJA -hankkeen III väliraportti)		
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Sammandrag Europeiska socialfonden (ESF) genomför Lissabonstrategin (2000) på EU-nivå. Enligt strategin skall medlemsstaterna ha som ambition att stå i spetsen för informationssamhällsutvecklingen före slutet av årtiondet. I synnerhet åtgärder för att främja innovativ verksamhet har ansetts utgöra en nyckelfaktor vid måluppfyllelsen. I Finlands ESF-referensram och i de programdokument som tillämpar den har det ställts stora förhoppningar på verksamheten både när det gäller de innovativa arbetssätt som utvecklas i projekten och åtgärder för att främja innovationssystemet. De granskningar som riktat sig till ESF-verksamheten har dock rätt dåligt kunnat föra fram i vilken mån projektverksamheten har uppfyllt dessa förväntningar. Föreliggande tredje mellanrapport om projektet för utveckling av regional kompetens och strukturfondsprojekten (ALUEOSAAJA) går till kärnan i Lissabonstrategin. Mellanrapporten försöker svara på följande frågor: (1) vilka slags innovationer uppstår i ESF-projekten, var har de sitt ursprung samt hur har deras diffusion och kontinuitet säkrats? (2) hur inordnar sig ESF-projekten i utvecklingen av det regionala innovationssystemet och vilken roll spelar de genomförda interventionerna där? (3) hur kan innovationsproduktionen i ESF-projekten och dess roll i innovationssystemet ytterligare förstärkas? Resultaten av utvärderingen kan delas upp under två olika teman. För det första, med utgångspunkt i de innovationer som producerats i projekten, framträder i verksamheten klart en utveckling av serviceproduktionen inom den offentliga sektorn. Innovationer produceras främst i offentliga organisationer inom utbildning och sysselsättning och i projekten har man siktat på att effektivare den verksamhet som anges i ESF-förordningen främst via utvecklande (inkrementella) innovationer. Den innovativa verksamheten har styrts av utvecklingsobjekt som observerats både inom och utom organisationerna. Innovationerna har utvecklats främst inom de organisationer som förverkligar dem. De innovationer som projekten utmynnat i har i regel baserat sig på lärande inom och mellan organisationerna samt utvecklingsarbete. I merparten av de granskade projekten är målet att vidareutveckla och sprida framtagna innovationer. Å andra sidan har man i projekten ofta inte i tillräcklig grad funderat över möjliga distributionskanaler. För det andra är ESF-projekten nära kopplade till utvecklingen av de regionala innovationssystemen. Projektverksamheten spelar en viktig roll vid utvecklingen av innovationssystemen också via andra projekt än de egentliga FoU-projekten. Som helhet har utvecklingen av innovationssystemet i ESF-projekten kraftigt handlat om att stödja regionernas innovationspotential och innovationskraft. Ett mer omfattande stöd för att utnyttja och realisera den regionala innovationskraften är däremot betydligt mindre framträdande. Tryggheten av obrutna innovationsprocesser utgör en central faktor för ett lyckat resultat vid realiserandet av innovationspotentialen och innovationskraften, men i största delen av projekten har man dock koncentrerat sig på att stödja endast ett visst delområde av processerna. Utvecklingen av innovationssystemet har som väntat riktat sig till centrala områden och verksamheten har i regel inte strävat efter att främja samarbetet mellan centrala och regionala områden.		
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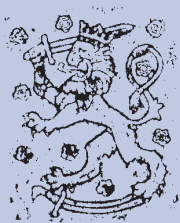
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Parts			
Abstract <p>The European Social Fund (ESF) contributes to the implementation of the Lisbon strategy (2000) on the EU level. In accordance with the strategy, the objective of the member states is to be at the top of the development of the knowledge-based society by the end of the decade. The promotion of innovation activity, in particular, is seen as a cornerstone in the attainment of the objectives. In the Finnish ESF frame of reference and the programming documents applying it, great expectations have been placed on the activities as regards both the innovative methods developed in the projects and the promotion of the innovation system. However, the reviews of ESF activities have not been able to provide a good account of to what extent project activities have fulfilled these expectations.</p> <p>The current, third intermediate report of the project for the development of regional know-how and structural fund projects (ALUEOSAAJA) adheres to the essence of the Lisbon strategy. The intermediate report aims to answer the following questions: (1) <i>What kind of innovations arise in ESF projects, where do they come from, and how are their diffusion and continuity secured?</i> (2) <i>How are ESF projects connected to the development of the regional innovation system, and what role do the implemented interventions have in them?</i> (3) <i>How can the production of innovation in ESF projects and the role of ESF projects in the innovation system be further strengthened?</i></p> <p>The results of the evaluation can be grouped under two separate themes. First, from the perspective of the innovations produced in the projects, the activity is strongly focused on the development of the production of services in the public sector. The producers of innovations are mostly public sector organisations in the fields of education and employment, and the projects have been aimed at strengthening operations according to the ESF Decree, primarily through incremental (developing) innovations. Innovation activity has been led by targets for development observed both inside and outside the organisations. Innovation has been developed mainly within the implementing organisations. The innovations produced in the projects have mainly been based on learning within and between organisations and development work. In the majority of the projects examined, the aim is still to develop and distribute the innovations produced. On the other hand, the distribution channels to be used have rarely been discussed sufficiently in the projects.</p> <p>Second, ESF projects are strongly bonded with the development of regional innovation systems. Project activity has its own strong role in the development of innovation systems, also through other than actual R&D projects. As a whole the development of the innovation system in the ESF projects is strongly focused on the support of the innovation potential and innovativeness of the regions. On the other hand, wider support of the utilisation and realisation of regional innovativeness is emphasised to a much smaller extent. Securing the continuity of innovation processes is an essential factor in the success of the innovation potential and the realisation of innovativeness, but the majority of the projects have focused on supporting only the processes in a certain sector. The development of innovation systems has expectedly been oriented towards the central areas, and as a principal rule the activity has not been aimed at the promotion of cooperation between the central and marginal areas.</p>			
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