Estonian National Strategic Reference Framework 2007-2013

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1. INTRODUCTION

1.1. Nature of the strategy

In Estonia, planning of European Union (EU) structural assistance for years 2007-2013 in Estonia is performed within the preparations of the general state budgetary strategy.[1] This makes possible to jointly plan both the activities co-financed from EU funds and the activities financed solely from Estonian own budgetary funds. Joint planning and coherent implementation raises the effectiveness and efficiency of public sector activities. At the same time, planning of structural assistance within the framework of preparing the general state budget strategy also helps to align the structural assistance best with the use of other EU (incl. European Investment Bank) financial instruments and external resources.

The present National Strategic Reference Framework 2007-2013 (NSRF, also referred to as *strategy* later in the text) presents the general strategic objectives and priorities for developing the policy areas and sectors that are eligible for EU structural assistance in the years 2007-2013. The strategy covers all activities that are potentially eligible for EU funding as well as the activities that are aimed to the same objectives and/or connected to them via additionality criteria, regardless of whether these activities are financed from EU structural assistance or not (i.e. from national budgetary resources alone). Such extended scope of the Estonian NSRF assures an integral approach to planning and directing the development of covered sectors and policy areas - and creates the basis for higher efficiency and better performance in the use of finances.

The National Strategic Reference Framework 2007-2013 is prepared as a part of the State Budget Strategy 2007-2010 and is contained in the latter. Although the State Budget Strategy has a four-year perspective and it is annually updated, its NSRF part will remain unitary in the following years for the duration of the next EU programming period. Thus, the State Budget Strategy features a longer-term strategic core from now on in the range of policy areas that will be developed with the aid of EU structural assistance.

This current version of the NSRF is extracted from the State Budget Strategy and will be adopted by the Government additionally as an independent document in order to present it to the European Commission – to bring it into conformity with the format requirements that have been presented to NSRF preparations with the Council Regulation laying down general provisions on the European Regional Development Fund, the European Social Fund and the Cohesion Fund (currently available as a draft version).

Based on the current strategy, the Operational Programmes (OPs) are prepared to specify the activities that will be co-financed from EU structural assistance and the volumes of the respective financing. These OPs are implementation documents of the NSRF in the domain of activities co-financed from EU structural assistance. The general content of OPs and their implementation arrangements are presented in chapters 5-6 of the strategy (see below).

1.2. Foundations of the NSRF

As described in the previous section, the NSRF is a national development plan that lies above the various sectoral development plans and is horizontal in nature, linking these several sectoral strategies. NSRF determines the general approach for directing the Estonian socio-economic

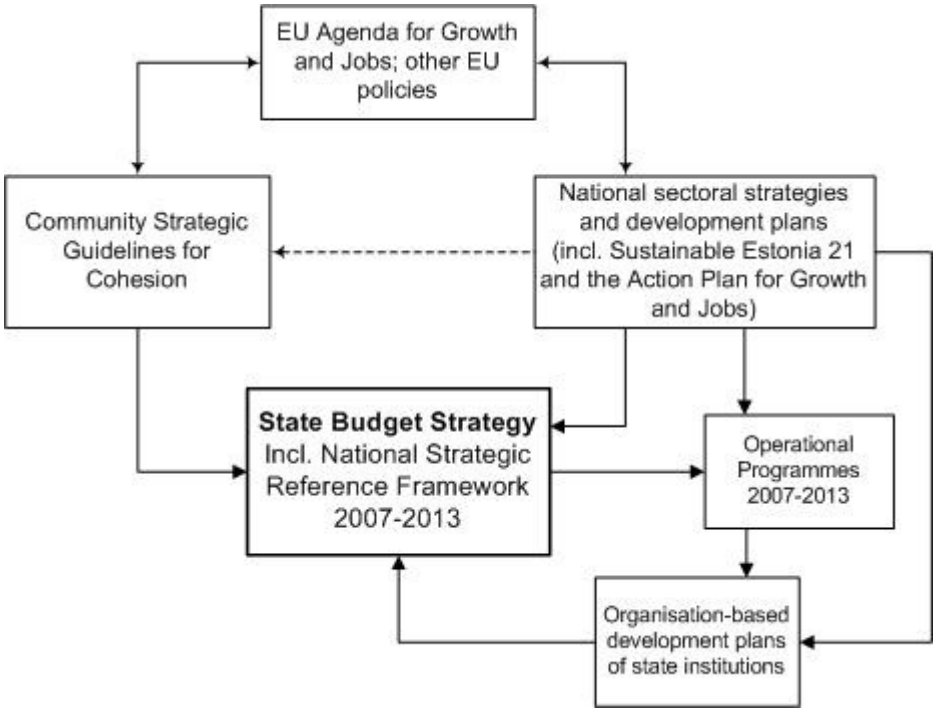
[1] The term 'structural assistance' is used in this text as the common term for referring to the funds allocated from European Regional Development Fund, European Social Fund and Cohesion Fund to the EU Member States.

development in years 2007-2013 is established. There were two kinds of methodological foundations that guided its preparation:

- the good tradition and best practices of public sector strategic planning that were adapted upon need to the specific context of EU structural assistance and Estonian public administration;
- the process and documentation content requirements as determined in the EU level for planning of structural assistance in the EU Council regulations – the content and preparation of NSRF is mainly stipulated in the EC regulation 1083/2006 laying down the general provisions for European Regional Development Fund (ERDF), European Social Fund (ESF) and Cohesion Fund (CF).

The foundations and evolvement of the content of NSRF has been summarised in Figure 1.

Figure 1. The foundations and evolvement of the NSRF 2007-2013



One of the foundations in the preparation of the NSRF has been the sustainable development strategy called "Sustainable Estonia 21" that has been adopted by Riigikogu (Estonian Parliament) and that features the formulation of Estonian long-term development objectives until 2030. Those objectives are:

- Viability of Estonian Cultural Space

Components: extent of the Estonian cultural space, functionality of Estonian culture, temporal continuity and flexibility of the Estonian culture.

- Growth of Welfare

Components: economic wealth, level of security, diversity of opportunities

- Coherent Society

Components: social inclusion, regional balance, strong civil society

- Ecological Balance

Components: use of natural resources in ways and quantities that ensure the ecological balance; reduction of pollution; preservation of biological diversity and natural areas

EU structural assistance as the instrument of Community cohesion policy has been created for increasing the economic and social cohesion across the EU. The objective of their use is to support the harmonious, balanced and sustainable development of the Community. For this aim, the less developed countries and regions receive support for reducing their development disparities; for

accelerating social and economic restructuring; and for preventing the dangers deriving from ageing of the population.[2]

Activities co-financed from EU structural assistance should be directed to ensuring sustainable economic growth by strengthening the economy; increasing competitiveness; increasing employment and social inclusion; reducing gender inequality; and improving environmental protection and environmental quality.[3]

Hence, the structural assistance can be used for moving towards the development objectives of "Sustainable Estonia 21". It is important to follow the development model set forth in the "Sustainable Estonia 21" that presupposes balanced consideration of the objectives of viability of the Estonian cultural space, growth of welfare, coherent society and ecological balance. Thus, the overall aim of planning and implementing the activities of the NSRF has to be to direct Estonian development in the medium-to-long-term perspective towards fulfilment of "Sustainable Estonia 21" objectives with the contribution of EU structural assistance.

Thereat a specific guideline for action is the cohesion policy headline objective formulated at Community level for the years 2007-2013: "Europe must renew the basis of its competitiveness, increase its growth potential and its productivity and strengthen social cohesion, placing the main emphasis on knowledge, innovation and the optimisation of human capital."[4]

In cooperation between the Member States and the European Commission, a unitary strategic framework for using the structural assistance in the Community during the new programme period has been laid down in the document "Community Strategic Guidelines on Cohesion". These guidelines form the basis from which the Member States have to proceed from in preparing their national strategies and Operational Programmes. The document practically presents a general determination of eligible areas of activity that clarifies the possibilities and Community-wide focuses of financing.

Community Strategic Guidelines on Cohesion are divided into three general guidelines:

1. Making Europe and its regions more attractive places to invest and work
2. Improving knowledge and innovation for growth
3. More and better jobs

In addition to these three guidelines the "territorial dimension" is additionally treated - in addition to sectoral (vertical) policies, the need to plan coherently the activities from several policy areas for developing different regions is addressed. Only when the local needs are approached individually and as flexibly as possible, can the development of regions be directed. Community Strategic Guidelines on Cohesion include activities for increasing the development level of both urban and rural areas as well as promoting the international cooperation in general.

It is pointed out under the description of strategy's priorities in Chapter 3, how the Estonian NSRF corresponds to the Community level guidelines.

Lisbon strategy process was started in the EU in 2000 for increasing the competitiveness across Europe and making the development more sustainable. Beginning from the spring of 2005, this process is focused on economic growth and creation of jobs. Since it is one of the key processes determining the future development of Europe, in the subsequent budget period EU structural assistance funds are primarily directed for supporting the Lisbon process – and thereby for increasing the cohesion within Community.

Thus, the aims and priorities of the Lisbon strategy have to taken into account as well during the planning of structural assistance. In 2005, the Action Plan for Growth and Jobs 2005-2007 was

[2] Council Regulation laying down general provisions on the European Regional Development Fund, the European Social Fund and the Cohesion Fund (currently available as a draft version), Article 3 (1).
[3] Ibid.
[4] Presidency Conclusions, European Council, March 2005.

prepared as the Estonian national Lisbon strategy action plan. It is pointed out in the description of strategy's priorities in Chapter 3 how the NSRF 2007-2013 corresponds to the Lisbon strategy action plans.

The direct basis and input for the current NSRF are the various domestic development plans of sectors and policy areas that are covered by the NSRF scope and treat the period of 2007-2013. These development plans determine the main development targets and activities of the various relevant areas, which can be implemented among other instruments with the help of structural assistance. Thus, the consideration of alternatives of sectoral activities and the choices were made to a great extent already before the initiation of NSRF preparation process sectorally and it was neither necessary nor expedient to repeat this process.

Accordingly, the Government of Estonia took the direction of planning the use of EU structural assistance within the framework of planning the development of the sector(s) as a whole, in order to maximize the impact of activities and avoid overlapping between them.

Despite all that, the Estonian National Strategic Reference Framework 2007-3013 is not merely an aggregate or compilation of the relevant sectoral development plans. Different sectoral lines of action and targets have been drawn together and mutually harmonised to create a single and coherent approach to directing the national development of Estonia.

The developmental needs and activities featured in several domestic development plans were converged and unified in the preparation of a unitary strategic reference framework, considering there-by the higher-level developmental needs determined in the integrated analysis of the state (presented in Chapter 2). Thus, the sectoral "bottom-up" views and "top-down" view of integrated national level analysis were combined in Estonia during EU structural assistance planning in order to elaborate a strategy that would provide the best possible vehicle for addressing the integrated needs of the state and have respectively the most impact.

Because of such an approach, the current strategy document already takes into account and is in line with the relevant Community policies since their principles have prevalently been incorporated into NSRF foundation of domestic sectoral development plans. Under the description of each priority of this strategy in Chapter 3, a short overview has been provided about how these priorities correspond to respective EU strategies and polices and the Estonian national development plans.

1.3. Linkages with European Agricultural Fund for Rural Development and European Fisheries Fund planning

During the next EU financial perspective period in 2007-2013, the EU funds for supporting agriculture and fisheries are not regarded as structural assistance anymore like they did in 1999-2006. Therefore, the planning for the use of respective funds is undertaken separately from structural assistance planning - although in the same general framework of the State budget strategy 2007-2010 preparations.

The Estonian Rural Strategy 2007-2013 as a strategic document and the Estonian Rural Development Plan 2007-2013 as its implementation document are prepared to use the resources of European Agricultural Fund for Rural Development. The Estonian Fisheries Strategy 2007-2013 as a strategic document and the Operational Programme of the European Fisheries Fund 2007-2013 as its implementation document are prepared to use the support of European Fisheries Fund. The Ministry of Agriculture coordinates the preparation of all of these documents.

The activities financed from EU structural assistance and the European Agricultural Fund for Rural Development and European Fisheries Fund assistance are very closely linked to each other. While the structural assistance is targeted for several policy areas in the region (in case of Estonia in the

whole country since Estonia forms one region under EU cohesion policy), the funds for rural development and fisheries are designed specifically for supporting the development of agricultural and fisheries sector, respectively. Despite that, the similar activities are planned to be financed from the different funds – e.g. activities to increase employment, promote entrepreneurship, and improve the living environment. Also, the activities co-financed from structural assistance support the improvement of the socio-economic situation in rural and coastal regions and vice versa.

Due to this close connection, it is necessary to pay close attention to mutual coordination of activities financed from these separate funds. The coordination needs to be present both in the planning phase as well as in the later implementation to avoid the duplication of activities and allow the synergy between them to emerge. During the planning phase, close cooperation occurred between the coordinators of different planning processes (Ministry of Finance and Ministry of Agriculture) as well as the participating ministries. The representatives of ministries responsible for drawing up the planning documents cross-participated in the planning processes. Several sectoral policy officials from ministries were simultaneously involved in the planning of various assistance (especially, for both structural as well as agricultural) and this in itself helped to ensure coordination. During the implementation of the prepared programmes, coordination activities will continue and the specific mechanisms to be used are described in the Chapter 6.1.

Within the current strategy, the concrete linkages between activities planned under rural and fisheries strategies and the activities of NSRF priorities are specified under the priority descriptions in Chapter 3 in order to bring out and explain the content coordination and demarcation lines and synergies between different documents, funds and activities. In addition, in the NSRF financial plan in Annex 2 information on the appropriations provided under European Agricultural Fund for Rural Development and European Fisheries Fund for Estonia in 2007-2013 that support implementation of NSRF have been brought out as well.

1.4. Preparation of the NSRF

The institution in charge of compiling the Estonian National Strategic Reference Framework 2007-2013 has been Ministry of Finance based on the decision of the Government of the Republic - more specifically the State Budget Department of Ministry of Finance. A special project team was created in the department for carrying out the planning of EU structural assistance for years 2007-2013 that also included representatives of other departments in the ministry, especially the soon-to-be managing authority.

All institutions responsible for policy-making in the areas covered with the NSRF participate in the planning process, including the development of the strategy:

- Ministry of Education and Research;
- Ministry of the Environment;
- Ministry of Culture;
- Ministry of Economic Affairs and Communication;
- Ministry of the Interior;
- Ministry of Social Affairs;
- State Chancellery.

In addition, the representatives of Ministry of Agriculture have participated in the process.

The line ministries executed the planning of the content of strategic priorities in cooperation with Ministry of Finance and other ministries. In September 2005, Ministry of Finance invited the above-mentioned parties into the specially created inter-ministerial working group that was the forum for compiling the information of relevant domestic development plans and activities, their harmonisation and integration into a coherent strategy. First, the analysis of the developmental situation was determined and then the choices of a 'correct' mix of activities based on the SWOT-

analysis were discussed together with the possibilities of combining these activities into priorities. Together with priorities, the first objectives and indicators were elaborated.

As a result of the work in the working group and under guidance of the Ministry of Finance, the initial coherent draft of the NSRF was compiled by the beginning of March 2006. The strategic approach of using EU structural assistance in 2007-2013 was discussed at the Cabinet meeting on February 13 and the Cabinet gave its principal approval to the strategic priorities.

The Estonian Government within adoption of the State Budget Strategy 2007-2010 principally endorsed the version of NSRF that had been adapted based on the opinions of he domestic partners and the first remarks of the European Commission. The NSRF part of the State Budget Strategy was adopted with the reservation that it is subject to changing upon need based on consultations with the European Commission and progress in the preparation of Operational Programmes until the adoption of the documents by the Commission in 2007.

European Commission participated as a partner in the consulting role in the compilation of NSRF. Commission representatives presented their remarks on the initial draft of NSRF in April 2006 in the form of unofficial consultation and an unofficial position paper in October 2006. Same time, the remarks were received from the ex-ante evaluation expert team of Tallinn Technological University conducting the evaluation (see chapter 7 for a closer overview of the content and conclusions of the ex-ante evaluation).

Following the remarks of European Commission and the ex-ante evaluators the strategy was further adapted and elaborated until the end of 2006. The Government of the Republic adopted the document for presenting it to the Commission for official consultation on January 11, 2007.

European Commission officially takes notice of the NSRF content after the consultations and does not adopt the document in its entirety. The adoption decision of the Commission will cover a decision on the division and structure of Operational Programmes, the overall financial plan of programmes and the ex-ante verification of additionality that has to be provided within the NSRF.

1.5. Involvement of interest groups into the preparation of NSRF

Use of structural assistance considerably influences further development of Estonia and there-by the well being of many people and development of policy areas. Therefore, it is essential to involve interest groups and parties as much as possible to structural assistance preparations and development of the NSRF. This rises awareness of people of the support opportunities in the next EU programming period; allows to find out their opinion and increase the compatibility of the planned actions with the actual needs in order to by increase the legitimacy of final decisions.

Each ministry participating in the development of the strategy prepared a list of their partners, i.e. the interest groups and organizations with whom they cooperated during the structural assistance planning process. This list is presented in Annex 1 and it contains altogether 124 different organisations who were directly involved as partners in the EU structural assistance planning process. Same time, all interested parties were able to join the list also without the initial determination from ministries' behalf – the list of partners was open. In addition, all the county governments were consulted during the preparation of the strategy.

Ministries organised the substantive inclusion of partners: they considered the proposals made during direct and current communication and during the consultations with partners. Ministry of Finance organised general communication and publicity activities, incl. press communication; general involvement activities, incl. bigger informative events for partners and the public, and the general process of domestic public consultations. Inclusion of partners took place based on the principles and procedures that had been previously agreed with the partners.

All the relevant background information, working materials and documents concerning the whole process have been available for the partners and general public at Ministry of Finance website www.fin.ee/sf2007 that has been set up for information exchange purposes. The Ministry of Finance also created a general e-mail list that includes representatives of the partners assigned by the ministries and all other individuals that expressed the wish to become members of the list (the e-mail list is continuously open for those who want to join). The e-mail list was used for publishing and spreading the working materials and communicating about the general process progress.

The Ministry of Finance organised together with other ministries on November 25, 2005 for the representatives of the partners a large informational seminar. The seminar introduced the principles and set-up of structural assistance planning in Estonia, the relevant organisational structure, the participation mechanisms and principles of involvement of partners. From November 2005 until February 2006 unofficial consultations were carried out with partners on the content of the developing NSRF. The partners had an opportunity to propose amendments and comment on the working versions of the analytical and strategy sections (initial priorities). The Ministry of Finance compiled all the comments and proposals as well as the ministries' replies to them together into unitary feedback tables that are available at www.fin.ee/res2007

Starting from December 2005 until the fall of 2006, the representatives of the main partner groups (entrepreneurs, employees, local governments, non-profit organisations, environmental organisations, representatives of scientists and universities, agricultural organisations) were involved in the work of the inter-ministerial working group. They participated firsthand in common discussions and working meetings where both the contents of the NSRF as well as methodological and procedural issues of 2007-2013 EU structural assistance planning were discussed.

From March 9 to April 13, 2006 domestic consultation round took place during which the partners and interested parties were able to present their proposals to the first complete version of the strategy. Altogether 169 proposals and remarks were received from 21 partners, most of which were taken into account by the ministries in charge of planning. The consultation table with all the received comments and the respective responses of ministries constitutes a separate annex to the NSRF document and is available at www.fin.ee/sf2007.

Since November 2005, there have been various meetings between the Ministry of Finance and the partners or partner groups of the process, where Ministry of Finance as introduced the set-up and progress of the planning process and the contents of the NSRF. In spring 2006 meetings with the party fractions of the Riigikogu and members of the Economic Committee of the President's Academic Council took place during the domestic consultation round of the NSRF. There have also been meetings between line ministries involved in the process and their partners to discuss issues related to structural assistance planning.

During the consultations and negotiations with European Commission the upgraded versions of strategy were available for the partners and public at the website www.fin.ee/sf2007. During a public information seminar on December 18, 2007 the Ministry of Finance also provided an overview of the changes made into the document after the principle adoption of NSRF by the Government in May 2006. In the same event, the ex-ante evaluation team presented their remarks on the document.

The involvement of interest groups and partners in the planning of EU structural assistance will continue during the implementation of Operational Programmes. The respective inclusion mechanisms are explained briefly in the Chapter 6.2 and in more detail in the Operational Programmes.

1.6. Organisation and monitoring of NSRF implementation

Since the Estonian National Strategic Reference Framework 2007-2013 forms a part of state budget strategy, it will be primarily be implemented by the ministries responsible for the activities through

the execution of annual state budget laws. The implementation of NSRF will be coordinated and monitored under the lead of Ministry of Finance within the framework of coordination and monitoring of state budget strategy implementation. There-by, the results and efficiency of implemented activities will be analysed, the planned activities and financing plans reviewed upon need (taking the regulated scheme of Operational Programme updating into account), the progress towards reaching the target levels of indicators followed and targets reviewed upon need, etc.

An important feature of the monitoring of NSRF implementation will be careful monitoring of the macro-economic impact and context of the implementation: e.g. the developments in the construction sector and other supporting sectors, inflation, external balance of the economy, etc. Ministry of Finance will propose measures to increase the positive impact or to prevent and mitigate the negative macro-economic impact if there will be such need (e.g. the yearly allocations of financing could be reviewed or redistribution of funds between regions or activities can be initiated, etc). The macro-economic considerations, incl. inflation developments, can be the base for reconsidering the current strategy and the content of Operational Programmes if major unexpected developments are to occur in the future.

The implementation of the strategy in the part co-funded by EU structural assistance is explained in detail in the Chapter 5.

In 2009 and 2012, strategic reports on the implementation of NSRF with EU structural assistance will be compiled within the framework of state budget strategy monitoring under the coordination of Ministry of Finance based on Article 29 of EC regulation 1083/2006. These reports will also be presented to the European Commission, and upon need relevant interim evaluations of programmes' implementation be carried out for compiling the reports. Within the reports, among else the attainment of the set target levels of indicators will be evaluated and, if necessary, proposals made to specify the target levels or activities of the strategy as well as the financial plans of Operational Programmes.

1.7. Structure of the document

The NSRF starts with the description of the development situation in Chapter 2 after the introductory sections of Chapter 1 to present an overview of the development needs of Estonia. This way the basis for decisions on the areas and objectives to which it is expedient to contribute the state financing, including EU structural assistance, has been derived.

Hence, the current situation, recent and future trends will be subsequently analysed in the sectors covered by the Community Strategic Guidelines on Cohesion together with the most significant external development trends, the macroeconomic environment and situation in Estonia and the current demographic state in Estonia.

The most essential aspects of each sector and trend are marked in bold. These are compiled and combined into the SWOT-analysis to create an integral analysis and enable the drawing of conclusions about necessary focuses for outlining the state activities.

The focuses for state action in 2007-2013 are presented as conclusions of the analysis of the current development situation in Chapter 3. Based on this, the general strategic lines of action for developing the eligible policy areas have been determined as the outline of the strategy for 2007-2013. After the headline objective, its sub-objective and respective indicators are presented supported the analysis; the strategic priorities (i.e. the strategic pillars or groups of action) are defined based on the previous analytical conclusions and in correspondence to the headline objective. For each priority the description of the main activities included in the priority and of the links to other NSRF priorities have been presented. Also the links between priorities and the "Community Strategic Guidelines for Cohesion", "Action Plan for Growth and Jobs 2005-2007" and other national and EU strategic documents are described.

Before the presentation on how NSRF is to be implemented through Operational Programmes in 2007-2013, in Chapter 4 the experience from the programming period of 2004-2006 are analysed first to see what lessons and knowledge can and should be taken into account when making the choices for funding the activities from structural assistance and developing the relevant implementation system for the next period. The NSRF does not duplicate the presentation of the activity contents of the activities of Operational Programmes, but in Chapter 5 a description of the general architecture of programmes, including of the criteria for selecting the activities into the programmes has been presented. In addition, in the same Chapter an overview is given on how the Operational Programmes support several horizontal themes, incl. most importantly the balanced territorial development - for which a separate overview is also presented on how these considerations have been "vertically" integrated into all Operational Programmes and priority axes as a "regional dimension". For information purposes, an introduction into the contents of the European territorial cooperation programmes that will complement the Operational Programmes under the convergence objective, is given in the last section of Chapter 5.

Chapter 6 presents more closely how the NSRF will be put into action through the Operational Programmes – how will be the implementation system look like and which coordination mechanisms are to be used, how will be partners be involved, how the administrative capacity of the people in the system will be ensured, and how can international cooperation be supported within the implementation of the OPs.

The summary of the ex-ante evaluation of NSRF performed by the Tallinn Technical University expert team is presented in Chapter 7. The summary includes the description of the nature and necessity of ex-ante evaluation, an overview of the set-up of evaluation and the main findings and conclusions. The detailed recommendations made during the evaluation and an overview of how they were taken into account by the ministries has been presented as an annex to the ex-ante evaluation report that is available at the website www.fin.ee/sf2007.

In the annexes of the document, the following information is presented:

- the list of partners that were involved in the preparation of the NSRF (annex 1);
- the financing plan of the NSRF showing EU structural assistance contribution by the Operational Programmes in 2007-2013 – the table has been compiled based on the financial plans of Operational Programmes (annex 2);
- an overview of the contribution of 2007-2013 EU Structural Funds in Estonia to EU Growth and Jobs agenda based on the requirements of Article 9 Section 3 of the European Council regulation No 1083/2006 (annex 3);
- summary of the ex-ante verification of additionality for 2007-2013 period (annex 4).

2. ANALYSIS OF THE DEVELOPMENT SITUATION

2.1. External environment: global and European development trends

In order to plan the state activities as efficiently as possible, the impacts, opportunities and threats that arise from external environment have to be taken into account. These create the context for domestic actions and can significantly impact their success. Thus, it is important to analyse in addition to Estonian internal socio-economic development situation the main predictable global and inter-European socio-economic trends. These are the trends that Estonia can influence to an extent with its national policies, but their realisation is mainly dependent on the events external to Estonia and its policy-making sphere.

Ongoing globalisation

The most large-scale and essential global development trend is ongoing globalisation process having an effect of more dense economic relations among the states all over the world. Globalisation together with increase of general standard of living determines the increase in scope of integral goods, services, capital, information and labour force markets.

Liberalisation of foreign trade in the world gives an impetus to globalisation and is also its outcome. The volume of demand is limited in small states like Estonia and therefore the long-term economic growth can mainly be based on export. Liberalisation and economic growth of trade partners involves bigger demand for Estonian goods and services. To use this opportunity, it is essential that the volume and quality of the offers of our companies are continuously increasing.

As a result of liberalisation of external trade and intensification of relations coming from the economic growth in the world, Estonia can use an opportunity to develop economic relations with all fast developing perspective regions – China, India, Central- and Eastern Europe, Turkey, etc. Estonia also wins from the increasing trade due to its location as a transit country, assumed that Estonia succeeds in keeping the pace with the development of trade opportunities in respect of the transit sector capacity. An additional opportunity is thereat to pay more attention than before to the reprocessing of transit goods and adding possibly high added value to them in Estonia, which would increase the benefits from the transit considerably.

Hence the globalisation brings with itself more intense economic integration that in turn increases the mutual dependency among countries. Main opportunities of Estonian economy as well as the macroeconomic risks are connected with our smallness, openness and integration with the world economy. **Estonian economy depends on the development cycle of economic and trade partners**. Economic crisis in the economy of main economic and trade partners can be quickly transferred to Estonia – like it happened in 1999 due to the consequences of the crisis in Russia. The opposite can also happen like proved by the current interests being at their lowest due to the weakness of the European economy which has accelerated the increase of loans and foreign debts in Estonia which in turn has even more increased the vulnerability from external shocks. Since the EU countries are the main target countries of our export, then the export and through it also the increase opportunities and speed of our companies directly depend on the strength of European economy. At the same time in the conditions of external trade liberalisation and internationalisation of activities of companies the diversification of economic partners and through that the management of risks of dependency from external world is possible.

Proceeding from our openness and dependency on partners and general developments of the world economic environment, Estonia is sensible towards any **protectionism phenomena** restricting or slowing down the trading and communication possibilities.

In addition to economic communication and relations, the globalisation involves (and in turn urges) mobility of people and intercommunication. Estonian people can travel more and communicate with others all over the world – **opportunities for international business, education, exchange of experience and knowledge increase.** This allows bringing new knowledge to Estonia, it develops our human capital, creates possibilities for development of entrepreneurship, etc. The opportunity, confirmed in world practice that increase of mobility of students and lecturers and involvement of foreign teachers can drive a development of scientific and development work and educational work in higher educational institutions and research companies in Estonia, should be specially marked.

Therefore we also have an opportunity to win from the global expansion of labour market assumed that people return to Estonia richer with one experience. Increase of mobility of people and cross-cultural learning broadens the worldview and increases the competitiveness in labour market and education. In short term it may also generate us problems when the lack of employees in some sectors is involved with mobility of labour force. A considerable threat in long term is the **"brain drain"** or the danger of labour force valuable for Estonia (top specialists and skilled labour) moving somewhere else. The biggest danger is the possible departure of qualified skilled labour (nurses, builders) and scientists and engineers in case the wages level and working conditions and opportunities in Estonia do not develop sufficiently.

Global enlargement of labour market creates opportunities also to the countries with aging and diminishing population (incl. Estonia) to gain benefits from immigration of people from the countries with increasing number of population (e.g. the developing countries where the "demographic explosion" is continuing – increasing poverty and migration in the whole world) – especially in case of attracting top specialists and scientists to Estonia. At the same time it can bring with itself social problems and diminishing of society's cohesion, especially in short perspective.

Intensification of international cooperation networks is the result of internationally increasing economic and human communication. This creates additional opportunities for exchange and transfer of knowledge and experience and direct business activities, increases national social and human capital.

In the conditions of international communication, mobility and cooperation **increases international tourism,** from which Estonia could gain benefits through purposeful work in developing tourism and increasing international reputation.

Continuation of European Integration and Baltic Sea cooperation

Another process takes place besides globalisation: regionalisation or more intense integration of the countries and regions located close to each other compared to communication with further states.

In Europe the regionalisation is taking place mainly within the framework of European Union. Regionalisation and specially integration in Europe amplify the effects of the above-described increasing international communication for states participating in it, since the regional communication is several times closer and more large-scale than global (i.e. between regions). Within Europe, deepening of EU integration as well as enlargement of EU influence the increase in communication.

For Estonia most important are closer opportunities of economic cooperation in EU and opportunities for people to move and communicate in Europe, proceeding from our location and membership in EU. At he same time we are more sensitive to the protectionism phenomena coming from EU – e.g. limiting the free movement of labour force, delay in free movement of services, protection of own companies by the Member States and unfair competition. The latter is also a risk from trade point of view in larger perspective, e.g. in case of goods imported from third countries. It would also be a problem for Estonia if the enlargement of EU area would slow down. The larger the EU internal market, the bigger the opportunities to act for Estonian companies.

In respect of fast integration of Estonia with Europe and broadening of cooperation and communication opportunities it is essential for Estonia to become a full member of EU area and **adoption of the common currency – euro.** For Estonia, adoption of euro is a logical step after using a currency system for dozen years. Adoption of euro will even more raise an economic stability; lower costs and currency risk, and takes us closer to the rest of Europe.

In respect of internal regionalisation in Europe, Estonia has opportunities to develop cooperation and relations between the Baltic Sea States (incl. through "Nordic dimension"), especially with Scandinavian countries; Baltic States and close neighbours of EU, especially with Russia. In terms of the Baltic Sea region, it is the fastest developing and most perspective region in Europe where also some of the most competitive states are located – cooperation with them could assist Estonian entrepreneurs and people to increase essentially their knowledge and opportunities to act. In addition it is economically perspective to increase cooperation with Russia and other CIS States considering the size of their markets and growth potential.

When considering the opportunities proceeding from regionalisation it should be borne in mind that too intense focusing on cooperation with only the close states can also be a source of danger. Namely it can amplify the increase in regional differences (incomes, way of life, attitudes), favouring the backwardness of periphery from the development centres of the world and region. Hence perpetuate the development differences and it will be hard to overcome them later. In terms of EU as an entity, Estonia is anyway located in periphery. Therefore, beside our close regions, we need to pay attention to development of cooperation and communication with other European and world countries. At the same time the existing risks in respect of EU internal regionalisation for Estonia are dispersed since we are located in the area with the fastest growth in Europe and adjacent to the states when being in close integration with them, we can considerably accelerate our development (e.g. technological development).

Increase of international competition and of the importance of competitiveness of countries

In respect of broadening of markets in conditions of globalisation and regionalisation, opportunities for companies open for expanding their activities across the borders but at the same time it involves harsh international competition.

This creates a need to continuously develop the competitive advantage of companies operating in Estonia. Relocation of production and business functions to the countries where they are performed cheaper and/or with higher quality ensuring at the same time control over the most critical - production development and coordination functions - from point of view of maintenance and growth of the level of incomes is increasing in the globalised world. Hence also in Estonia it is essential to pay more and more attention to relocation of activities with higher added value in global value chains besides maintaining cost-efficiency of businesses. It means paying much more attention to educational, scientific and technological capabilities.

Due to diminishing of the distances between technological development (foremost information- and communication and transportation technology) and global time-space, it is possible to locate individual part of the business cycle of a company to that place in the world where the consistency of production factors ensures an access to critically essential inputs (raw material, technological competence, and much more) as well as the favourable manufacturing cost. The growing volume of the foreign investments in the world also expresses this. At the same time one of the main trends and influencing factors of financing decisions regarding foreign investments is the existence of local specific knowledge and skills (in ratio with price) or in respect of direct foreign investments, the quality of investments can be foreseen in addition to increasing volumes. Quality of foreign investments is expressed in complexity of created jobs, knowledge and technology based business, etc

So the regional specialising opportunities expand favoured by existence of regional specific development advantages (e.g. skills, knowledge or production inputs). At the same time additional foreign investments favour the general increase in national technological development level and

progress of growth advantages (supplementary) in case the foreign investments involve more capital, technology, know-how, relations and cooperation opportunities for local companies and people (i.e. foreign investments are of high quality).

Current national competitiveness of Estonia and success in participating in international labour distribution and attracting foreign investments to the country has mainly been based on one strength – cost-benefit or cheap labour force and other production factors. Proceeding from our fast development and fast salary growth that tends to overshadow the growth of productivity that kind of **cost benefit** is **diminishing** in the longer perspective, meaning the development risk. Proceeding from the low capacity of knowledge and skills and underdeveloped specific competitive advantages there is a risk to remain also further a performer of little paid subcontracting works which would limit the economic and technological development opportunities of the state and endanger to consolidate the economic structure with low added value. Due to the increasing competition pressure in conditions of the globalisation, problems can occur in some business sectors. Extinction of some companies or business sectors is not a problem itself since it gives an opportunity for reorganisation and directing the labour force to the sectors with higher added value and sustainability. This assumes making well-considered policy, since the organisational changes of economy are always complicated and adaptation in the labour market assumes acquiring of fresh knowledge and skills.

Only the states and regions where the educational quality of labour force, labour market and educational system flexibility and innovative capabilities of the society allow to adapt flexibly the local production factors according to changes in global economy have the best and most permanent long-term development opportunities. At the same time the fastest growing companies and states are the ones who develop flexible but clearly focused expertise and competitive advantage in certain area and actively participate in designing the development of markets. In the future those two factors form the main basis for the competitiveness of the countries from which proceeds the EU competitiveness improvement policy strategy or Lisbon strategy.

Hence for Estonia, an essential development opportunity is using the **foreign direct investment volume and quality improvement** trend in case more and of higher quality foreign investments could be attracted and apply the opportunities proceeding from them also to development of domestic development advantages and entrepreneurship.

Spread of a more flexible and sustainable welfare society model

Peoples' expectations and preferences towards their welfare are increasing ongoingly. Proceeding from the development level of the country, and through that the bigger dependency of the level of well being on the level of technological development and competitiveness of the country, more importance is attached to applying the flexible welfare society model. The process of ageing and diminishing of the population in welfare states, incl. Estonia, also favour this. The trend is to reform the schemes of social supports and public intervention policy by moving away from subsistence benefits towards development support. It has been comprehended that if the society is not ready to accommodate with new development conditions there will no longer be the welfare society.

At the same time it is more perceived that a long-term duration of a welfare society or sustainability depends on how sustainable the society is. Therefore in Europe as well as in other welfare states, the increase in environmental and sustainable development awareness, incl. spread of "green" state of mind can be observed. So more and more attention is paid to maintenance of ecological balance, development and introduction of environmentally friendly economic mechanisms and technologies (incl. renewable energy), hardening and completion of environmental and health requirements, taking care of own health and local human environment, etc **Environmental sustainability is becoming one of the essential economic competition factors** - since the demand of companies as well as persons for relevant (ecologically clean) goods and services is increasing. Natural resources, biological diversity and unpolluted environment are evaluated as biological capital.

The attempt is made to reform the European social or welfare society models in line with those trends also within the framework of Lisbon process.

Rising importance of energy sources

Sustainability becomes more important also because the **energy deficit** is looming – fast growth of global energy needs, especially in large developing countries, implies the more extensive use of energy source. The non-renewable natural resources (e.g. oil, gas, coal) are used the most for getting energy, and these usually also contaminate the environment more than the use of renewable sources. As a result, the price of energy carriers is on the rise (Estonia has felt this through our own inflation rates), which puts an inflationary pressure on the whole economy and contributes to increasing the foreign imbalances (e.g. current account deficit). These pressures are relatively more significant for the more economies that are energy-intensive and relying on foreign energy imports. Ownership and efficient use of energy sources, especially the renewable ones, has already become a factor of international competitiveness, security and influence for states. Thus, all countries are aiming for achieving greater energy supply security and efficiency.

Importance of technological development and innovation

Globalisation as the growth of capital, international mobility of goods and services changes the smart people living in a specific state or region the key factors of welfare growth and their capability to offer the world products and services with possibly more knowledge and skills.

In the 21st century, the economic and social development of the countries therefore depends more than ever on the technological development level and potential of the state. Key areas and development engines of science and technology in the world are in turn the information and communication technologies, biotechnologies, nano- and material technologies, more and more social technologies and products and services based on those technologies. More than half of the growth of economic productivity in OECD countries currently proceeds from a broad application of communication technologies in all spheres of life. It is believed that bio- and nanotechnologies have in longer perspective a potential to start new technological revolution. Interlacing of different disciplines and technologies and development of cross-usage also enhancement and enrichment of old traditional solutions with new high technology components are more and more important.

For Estonia and other somewhat backward new EU states, the **fast and expansive adoption of new technologies** and related development of new products and services and technologies and updating of business and operational models from the standpoint of growth of economic productivity as well as environmental sustainability are extremely important. Adoption of new technologies allows optimisation of processes and increasing their quality, contributing also to the growth of administrative capacity of public sector.

Continuous development, advancement and implementation of new technologies and processes create the basis for adoption of technologies and innovation. Gaining benefits from it depends on the success of spread and transfer of technologies and solutions and Estonian-side absorption capability. From the standpoint of long-term sustainable development of Estonia it is also important to raise the capability to create the new technologies ourselves. This necessitates raising the capability in the field of scientific and development activities, paying special attention to expanding the competence basis of ICT, bio- and nanotechnologies – especially in key areas supporting on local competitive advantages.

More frequent international crisis situations

Frequent emergence and fast spread of international crisis situations has become one of the key-words of the 21st century deriving from the interdependency of states due to globalisation and lessening of time-space distances. Those situations also express risk for Estonia as well as other world countries. Epidemic outbreaks, terrorist acts, natural disasters and other can essentially disturb ordinary life arrangements and hinder the progress – especially the latter as reacting to them and

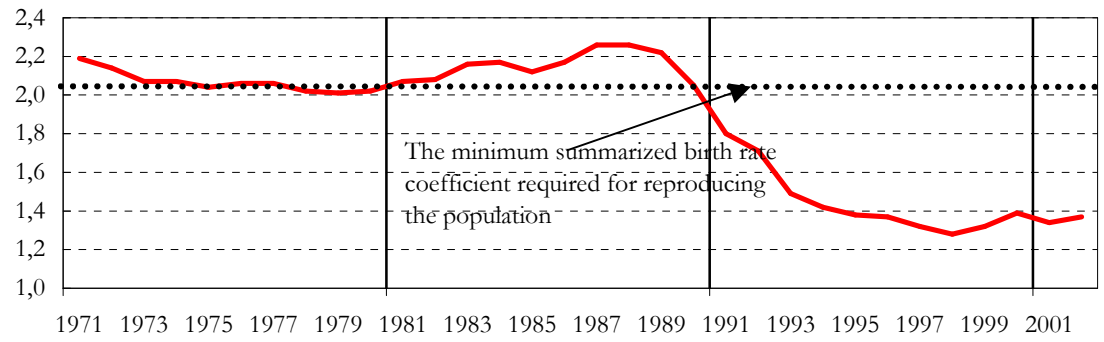
overcoming them often requires intensive and fast redirection of budgetary resources. For Estonia the probability of emergence of those situation is relatively low but the risks are increasing and we have to consider them.

2.2. Demographic situation

Demographic situation in Estonia can be described as elsewhere in Europe by **diminishing and aging of the population**, which in longer perspective is a more and more restrictive factor.[5] As of January 1, 2006 Estonia had 1 344 684 residents, 53,9% of them women (725 385) and 46,1% (619 299) men.

The diminishing of the population has been continuous in Estonia since the beginning of 1990s. If up to now the main reason behind it has been migration, then during the last years also the age structure has started to clearly change. Restoration of independence can be regarded as the beginning of the ageing trend of population, because after this the number of people over 65 and older has increased and there has been a dramatic drop in the birth rate. The summarized birth rate coefficient (i.e. average number of alive born children per woman during her life, if the birth rate age coefficients of the specific year would be valid) has diminished by 1/3 compared to the beginning of the decade or the immediate years after the "singing revolution" (see Figure 1). The existing level (1.5 in 2005) is not enough for reproducing the population.

Figure 2. Summarised birth rate coefficient



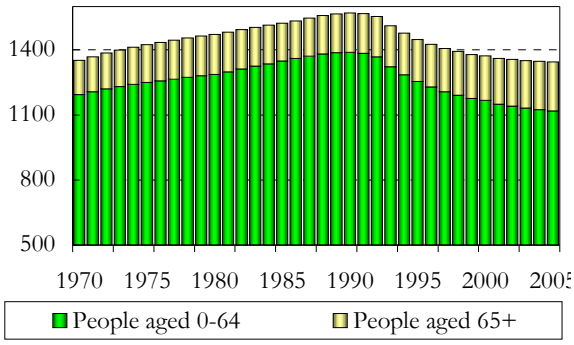
Source: Estonian Statistical Office.

The drop in the number of children and longer life span has inevitably increased the percentage of elderly people in the society (see Figure 2). While in 1990 the percentage of people over 65 formed 11.5% from the whole population, today the figure is 16.2%. By the year 2050, the percentage of people over 65 is expected to be about 27% of the population.

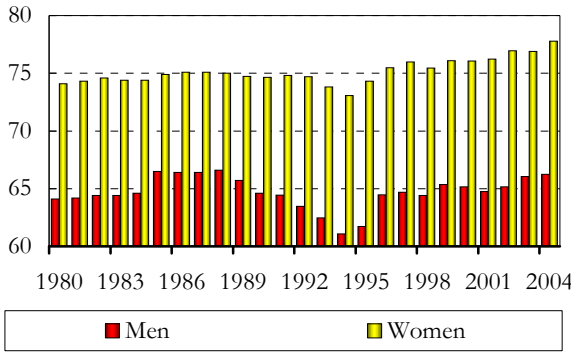
[5] It has to be noted that in 2005 the population in the EU grew by 0,5% when considering also migration trends – but the general trend is still in favour of decrease in the population.

Figure 3. Estonian demographic trends until 2004

A. Estonian population (thousands)



B. Average life expectancy at the moment of birth (years)

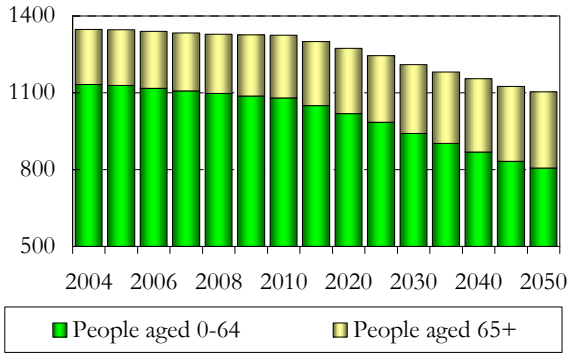


Source: Estonian Statistical Office.

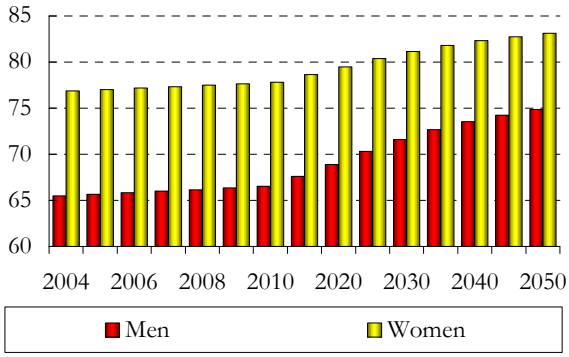
The population of Estonia is decreasing according to present (European Commission as well as Ministry of Finance) forecasts by 17–18% in the 50-year perspective (see Figure 4). The forecast assumes that the birth rate indicators are increasing from the current level – but not sufficiently enough to ensure the birth rate coefficient 2.1 necessary for maintaining the population. In 2050 the summarised birth rate coefficient will get to level 1.6 (in 2000: 1,39). The disproportion between the number of working people and retired people is also increasing. In 1992 there were two working people per one retired person. Currently it has fallen to the level of 1.8. According to the prognosis, in 2050 there will be 1.27 working people per one retired person. These developments put a big pressure on social security and there-by the costs of state budget and government influencing them towards rising and redirecting them directly from activities enabling the acceleration of state development. This situation additionally presents challenges to development of health care and social protection.

Figure 4. Forecast of Estonian demographic trends

A. Estonian population (thousands)



B. Average life expectancy at the moment of birth (years)

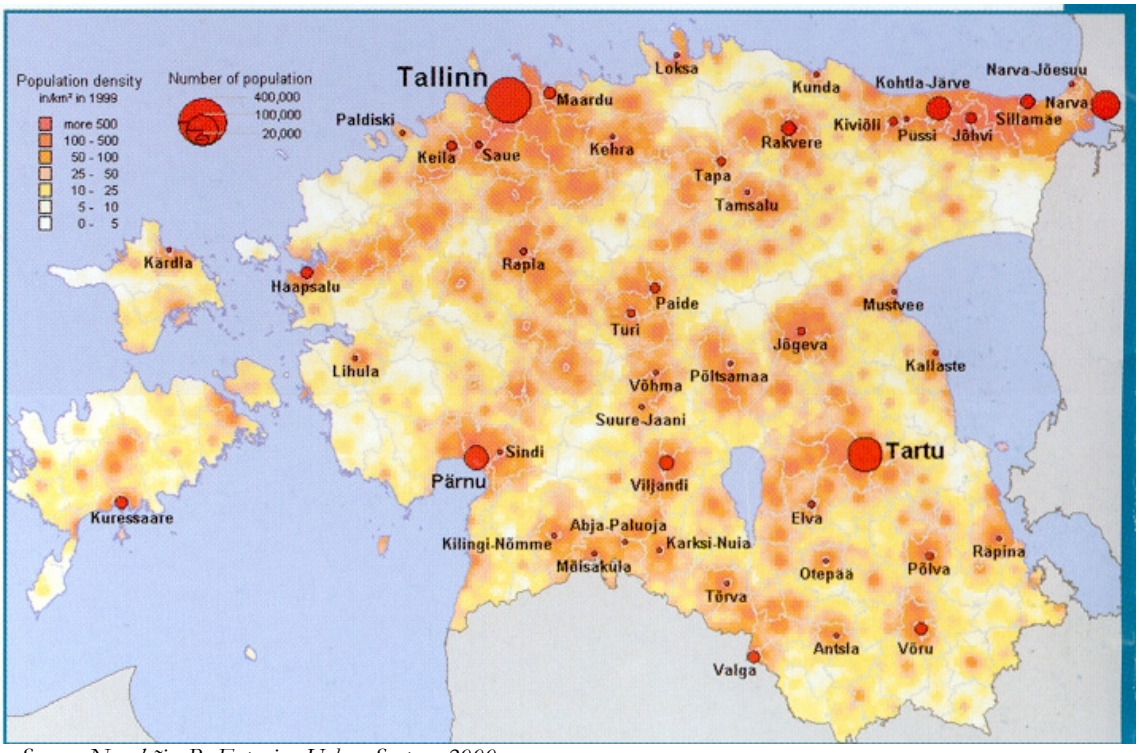


Source: Ministry of Finance, Estonian Statistical Office

The described demographic trends also influence the national development directly through the accompanying decrease in labour force supply and the change in the age structure of existing labour force. These determined the growth of enterprises and there-by the speed of economic development. Increasing shortage of labour force is most vividly predictable based on the demographic labour market pressure index. The index is calculates as the ratio of people aged 5-14 and 55-64 years. It characterizes the ratio of generations entering and exiting the labour market in the near future. In case of natural development the value of the index is more than 1, which same time shows a certain unemployment risk for the generation entering the labour market. The value of the index in Estonian

in 2000-2004 was more than 1 but declined fast. In 2005 the value of index fell below 1 which denotes the rise of demographic labour pressure above the level of reproduction of population.[6]

Figure 5. Population density in 1999



Source: Noorkõiv, R. Estonian Urban System, 2000.

More than 30% of Estonian population lived in the capital Tallinn at the start of 2006, 37% in other urban areas and 33% in the rural municipalities. Estonia is sparsely populated compared to the rest of Europe – the average population density is 31 inhabitants per km², outside the 5 major cities (Tallinn, Tartu, Narva, Kohtla-Järve, Pärnu) even less, on average 16 inhabitants per km² (see also Figure 5). The average population density in the EU was 118 inhabitants per km² in 2003.

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2.3. Macroeconomic environment and situation

The **geographical position** of Estonia by the Baltic Sea favours large-scale economic cooperation with the most dynamic and fast-growing area in Europe – the **Baltic Sea states and specially the Nordic countries.** The most important trade partners – Finland, Russia, Sweden, Germany and Latvia – come from this region. Also, the major foreign investment flows directed to Estonia come from Finland and Sweden. The position of Estonia between east and west has created opportunities for the development of transit and western countries can use Estonia as a gate to Russia and the CIS markets.

From the economic standpoint one of the main strengths of Estonia is its **macroeconomic framework, which is stable and supports the development of enterprises.** This framework consists of:

- the currency board system;
- the balanced budget principle of the governmental sector; its implementation also ensures the long-term sustainability of budget policy and low level of governmental sector debt – Estonia has been one of the states in EU who already has achieved a balanced or surplus budget position as foreseen in the Stability and growth pact;

[6] Ene-Margit Tiit, Eesti rahvastiku põhinäitajad aastail 2005-2006 Euroopa taustal, 2006, lk 6-7.

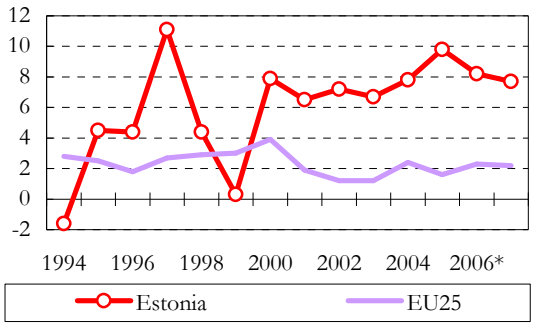
- openness of economy – liberal foreign investment policy and membership in the European unitary internal market;
- relatively low tax burden of companies (incl. low taxation of capital) which supports the development of enterprises and creation of jobs;
- little usage of market-deforming state aid that supports remaining in competition;
- consistent implementation of the general principles of economic policy since restoration the re-independence.

The implemented polices have resulted in the growth of trustworthiness of the Estonian economy, which are proved by improved state ratings and increased position in the international competitiveness and economic freedom ranking lists. The increase in trustworthiness is also proved by the success in involving foreign investments and the continuous increase in number of tourists visiting Estonia. Foreign investments have brought with them an initial renewal of technology and contributed to the spread of state-of-the-art management practices in Estonia. This in turn has contributed to the development and growth of Estonian economy and its integration to EU and world economic space, which is continuously important also in the future.

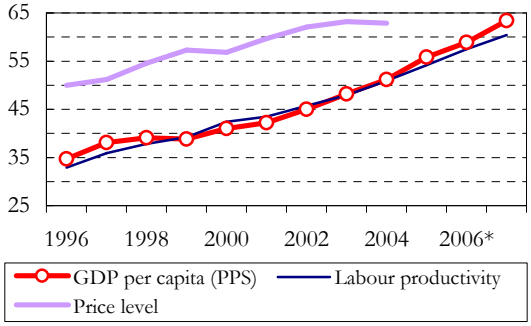
Estonian economic growth reached 11.7% in the first 3 quarters of 2006, which surpasses the average growth of last 5 years by 3,4 percentage points (see Figure 6a). The acceleration of growth was a result of both the growth of internal demand as well as exports compared to 2005. The average economic growth of last 11 years has been 7.0%; in EU only Ireland has achieved more – 7.8%. Since the average economic growth of EU25 in the last 10 years has been (data for 1995 was unavailable) 2.3% in average, the GDP in Estonia per capita considering the purchasing power parity has reached the level of 60,1% of EU average in 2005 from the initial level of a third of EU average (see figure 6b). When the current development will continue without any changes, we are expected to reach the level of 75% from EU-25 average GDP per capita by year 2008.

Figure 6. Main Estonian economic development indicators compared to EU Member States (%)

A. Economic growth



B. Real convergence with EU (EU25=100)



Sources: Eurostat, Ministry of Finance.

The opening of the labour markets in the neighbouring countries of Finland and Sweden but also in the more distant United Kingdom and Ireland has brought along the convergence of wage levels for new Member States, incl. Estonia. The exceptionally fast growth of real wages in 2006 has thrivingly decreased the low-cost labour-based competitive advantage of enterprises. In the next years, the efficiency and results of human resource development, and the capacity for and speed of economic restructuring will determine the success of Estonian economy. The latter presumes transition to more productive technologies and competent R&D in the enterprises.

In terms of the average inflation of last 5 years (2001-2005) Estonia is near the average level of new Member States and Estonian inflation has approached the EU average, being around 3-4%. The relatively fast rise in Estonian price level has been caused by the openness of the small economy together with the currency committee system that does not allow using exchange rate policy to

reduce the impact of foreign shocks. At the same time, the currency committee system proved to be a right solution for relaxing the very big inflationary pressure of 1990s.

The high sensitivity of Estonian inflation to energy prices is caused by the relatively high energy intensity of our economy. When the Estonian inflation was lower than EU average in 2003, one reasons for this was the low oil price in world markets. Estonian inflation has risen from then together with EU accession and the rise of oil prices in world markets, reaching even 4.1% in 2005 and 4.4% in the 9 months of 2006. Most of the accelerated price increase can be explained by one-time factors (e.g. the direct contribution of rising prices of engine fuels to inflation reached 1.4% in 2005) that should decrease in the near years. The inflationary pressure also rose in 2006 from the drought-induced appreciation of foodstuff and appreciation of heating. In addition, the demand-side inflation has risen recently in line with strong growth of incomes. The inflationary expectations of consumers have remained below the level of previous years, which has implied that the acceleration of price increases has not led to faster wage growth. According to the forecasts, the slowing of Estonian inflation is not expected for 2007-2008, remaining on the level of 4.3-4.4%. The reason is the continuance of demand-related price pressures, scheduled and externally influenced price increases of heating and gas, and the several excise increases occurring at the beginning of 2008. Same time, the risks are high due to incalculable developments in energy prices and the potential continuation of a consumption boom that can cause an even higher inflation. Thus, **inflationary pressure remains an issue to be tackled** as otherwise it can undermine the national and sectoral development efforts as with price increase the value for money of development projects decreases as well as the real impact of projects.

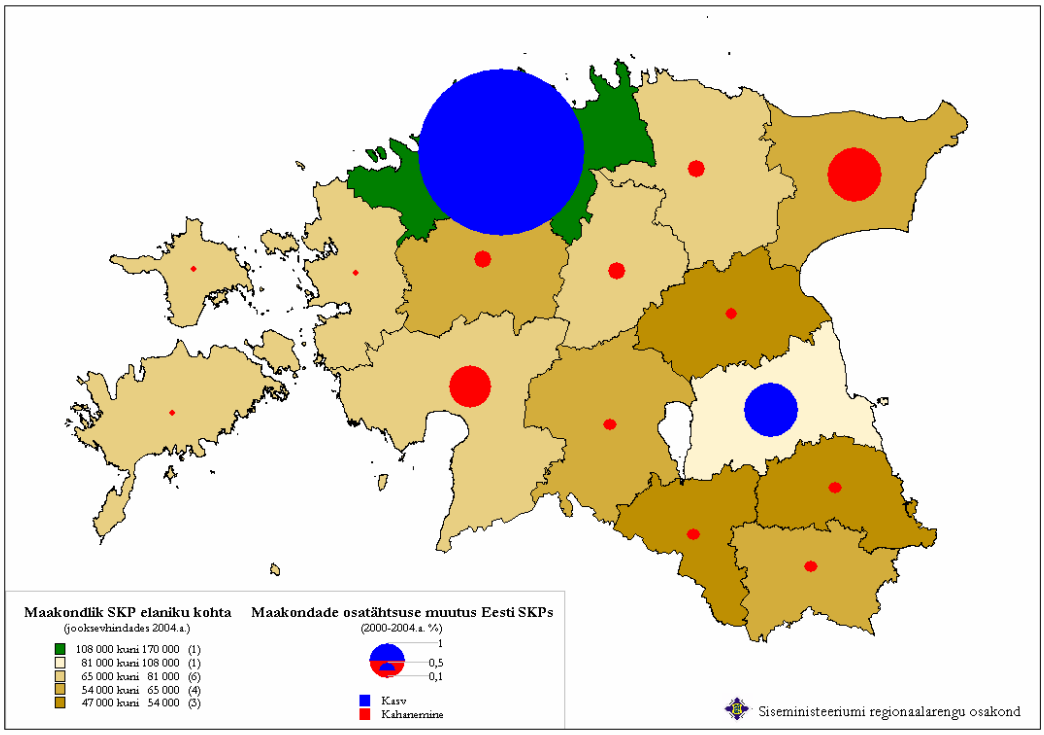
Strong economic growth and increased demand for new residential spaces and industrial has brought along significant acceleration of the growth in the construction sector. Fast-growing demand and appreciation of materials has caused a noticeable rise of construction prices and costs. While the construction prices rose 3.7% in 2004, then in the first 9 months of 2006 the rise was already 9%. There-by the appreciation has been pulled by labour costs that grew by total of 16% in the period, reflecting sharp competition in the market for qualified labour. The appreciation of construction works will remain at a high level in the coming years due to the labour costs and increasing price of construction materials.

The external imbalance of the Estonian economy is still high and growing even more in 2007 based on the forecasts of Ministry of Finance and the Bank of Estonia. The current account deficit rose from 10.5% of GDP in 2005 to 13.0% in the first half of 2006. The big current account deficit has been caused by big investment need that has not been covered by savings of domestic residents. The majority of current account deficit is composed of trade balance deficit rising from the big volume of imported good that has not been balanced by exports of goods. The outflow of revenues has also increased in the last years, caused by the fast growth of investment revenues earned by foreigners in Estonia.

2.4. Regional and local development

The space structure of the Estonian society is transforming. Over the last 15 years, the changes in the living and entrepreneurial conditions of the rural areas (including the fall of the relative share of agricultural sector in the economy) and fast development of urban areas has caused the concentration of both the population and economic activity to bigger centres and their hinterlands.

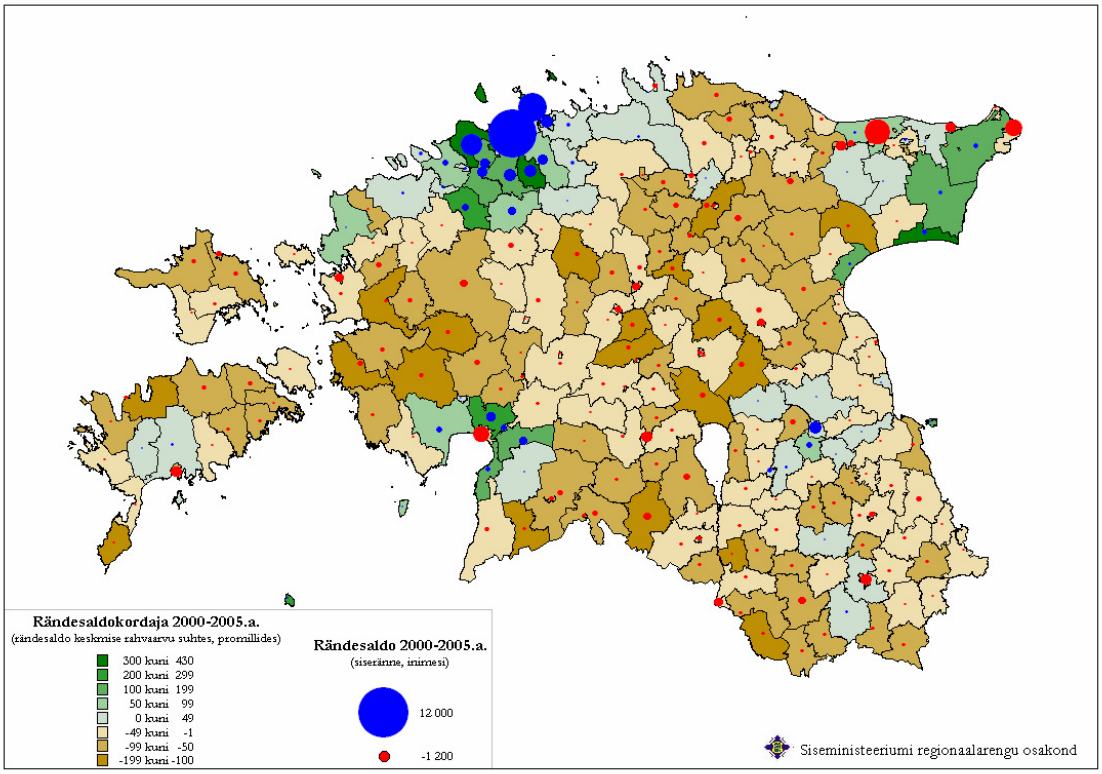
Figure 7. GDP per counties (2004)



Source: Ministry of Interior based on the data of Estonian Statistical Office.

The concentration process of the population and economic potential (see figures 7 and 8) influences in turn the development opportunities of different regions generating different kind of problems and challenges in rural areas with decreasing population density and urban areas with increasing population density. Concentration of population and capital to bigger centres and their hinterlands has **decreased domestic regional balance** (see also Table 1). There-by, the regional disparities depend more and more on the developmental level of urban regions that are the motors of regional development. Thus, the relatively good regional development indicators of Harjumaa, Tartumaa and Pärnumaa are directly linked with the development state of their respective centre towns whereas the problems of Ida-Virumaa are directly related to the restructuring difficulties of the industrial towns in there.

Figure 8. The internal migration of population in 2000-2005



Source: Estonian Statistical Office based on the date of population registry.

Table 1. Regional differences

County	Living standard	Age structure of population and labour market			Economic activity and productivity				
	Wealth[1]	Social load[2]	Employment rate[3]	Free labour[4]	GDP[5]	Productivity[6]	Investments[7]	R&D activity[8]	Entrepreneurial activity[9]
Harju	2637.5	44.7	62.8	9.6	160 632	1 105 296	632 964	0.09	47.0
Hiiu	1373.0	49.0	62.3	5.8	70 009	427 852	248 930	0.04	26.0
Ida-Viru	1464.5	46.5	48.9	18.1	63 005	547 733	305 369	0.10	11.3
Jõgeva	1189.2	53.7	44.9	14.8	45 478	557 137	301 307	0.20	14.9
Järva	1644.0	49.7	57.2	11.4	67 732	816 431	442 081	0.04	15.7
Lääne	1592.0	51.3	55.9	8.3	62 616	508 614	285 615	0.01	21.0
Lääne-Viru	1945.4	52.7	54.9	6.9	69 862	650 478	360 170	0.02	19.6
Põlva	1254.6	54.8	45.2	14.3	48 688	652 289	350 488	0.00	16.9
Pärnu	1780.2	51.3	55.5	6.9	76 234	596 270	336 252	0.00	26.6
Rapla	1874.1	49.8	56.3	5.9	59 471	675 915	367 693	0.01	20.3
Saare	1475.8	51.1	54.7	5.3	67 292	611 272	339 282	0.01	21.8
Tartu	1963.5	47.9	58.9	5.2	88 370	792 506	440 438	0.09	28.5
Valga	1280.5	57.6	52.5	9.5	52 783	492 600	272 691	0.03	16.0
Viljandi	1405.3	53.1	55.6	9.2	59 925	650 119	355 022	0.02	16.9
Võru	1305.2	55.4	47.4	8.7	55 608	539 322	297 465	0.01	16.5
Estonian average	2012.0	51.2	57.1	9.9	103 454	859 061	63 904	0.08	30.2
Regional disparities[10]	2.22	1.29	1.40	3.50	3.53	2.58	4.05		4.17
Trend of regional disparities[11]	↓	↓	↔	↑	↑	↑	↔	↔	↑

[1] – 2003-2005 average monthly income from wage labour per household member, in kroons.

[2] – dependence rate: 2003–2005 average share of non-working age population in working age population (aged 15–64 years), in %.
[3] – 2003–2005 average share of employed persons in total working age population (aged 15–74 years), in %.
[4] – unemployment rate: 2003–2004 average share of unemployed persons in economically active population or labour force (aged 15–74 years), in %.
[5] – 2003–2004 gross domestic product per capita, in kroons
[6] – 2003–2004 average net sales of enterprises per employed person (aged 15–74 years), in kroons.
[7] – 2003–2004 average volume of investments in fixed assets per employee (for enterprises with 20 and more employees), in kroons.
[8] – 2003–2004 average share of research and development expenditures of enterprises in their net sales, in %.
[9] – entrepreneurial activity: 2003–2004 average number of companies per 1000 inhabitants.
[10] – difference between the highest and lowest county indicator, in times.
Source: Ministry of the Interior on the basis of data from the Statistical Office

The regional imbalances are reflected primarily in the regional differences in unemployment and incomes of the population as well as economic activity. These differences are considerable across the counties – the living standard is low outside larger cities and activity opportunities one-sided. Continuing concentration of population to urban areas bring to the society as a whole additional costs – need for additional infrastructure, increasing pressure on natural environment, inflation pressure, sharpening of several social problems, et al. The availability and quality of primary public services is uneven, in many cases the infrastructure in regions of lower living standard is out-of-date and uneconomical - both in urban regions (e.g. municipalities close to towns) as well as in peripheries. Low economic activity and low purchasing power cause deterioration of the availability of services and unsatisfactory state of infrastructures especially in rural areas.

Due to the sparse and localised population density it is inevitable that the principles of polycentrism need to be followed in determination of the growth centres. As a result of the existing trends the population and productivity will concentrate into too few centres and their hinterlands.

Majority of Estonia is of rural nature in the European context in respect of regional problems. This applies to both the local centres (labour force areas – about 44 of them) as well as bigger county centres (about 12 of them), too. The local centres with their hinterland rural communities and the county centres with their hinterlands form internally integral regions with their specific developmental and living environment problems. Same time, the role of county and local centres in ensuring the sustainable development of their hinterlands has been so far relatively modest. The public services infrastructure is insufficient for securing the nationally competitive educational and recreational opportunities for the residents of the hinterlands. The role of county centres in strengthening the regional innovation potential and developing the different types of networks is weak; also the ability to create competitive conditions for knowledge-intensive investments is weak (see Table 1). As a result, in many regions the competitive living and working environment is not ensured for specialist with higher qualifications, which makes them leave the region.

In rural areas, the jobs that have been added in the production and service sectors have managed to compensate less than 1/3 of the jobs lost due to increased productivity of agricultural sector and this cause the higher level of unemployment in rural areas compared to urban ones. The mobility of labour has clearly increased over the last years in rural areas, primarily has increased the work-related pendulum migration to urban areas. When in 1998 there were 53,5 thousand rural persons working the cities (30.2% of employed people), in 2004 the figure was already 65.1 thousand (38.5% of the employed). The communal local public services infrastructure is rather well developed from earlier time, but out-dated and uneconomic. Functionally, the infrastructure is over dimensioned and duplicative with respect to several services. Same time, there are no opportunities for several modern communal services. The communal self-initiative of local people is developing strongly, but so far it has still been rather homely.

The entrepreneurial situation and competitiveness differ a lot across counties and between rural and urban areas. While the average entrepreneurial activity level in urban areas reaches above the level of 30 enterprises per 1,000 inhabitants, the figure is only 18 on average in rural municipalities. The falling ratio of new enterprises to liquidated ones shows low vitality of rural entrepreneurship – the number of ceased enterprises is growing faster than the number of created enterprises. There are

quite a lot of areas where the condition of physical infrastructures required for entrepreneurial development is still insufficient and this hinders entry of new investments to those regions.

The urban-specific problems have to be treated on different levels. Within the framework of this strategy here and the new programming period and considering the peculiarities of problems, 5 urban areas are treated as urban (towns with more than 40,000 inhabitants): Tallinn with its suburban hinterlands, Kohtla-Järve urban area, Tartu, Pärnu and Narva.

The urban-specific problems express themselves first and foremost as problems arising from the fast population growth and the regeneration requirement of larger urban areas.

Majority of investments accumulate to urban areas. The greatest point of concentration is Tallinn, Tartu and Pärnu to a lesser extent. This has created a condition where the urban space that was planned decades ago does not correspond to the modern needs anymore. In Tallinn, Tartu, Pärnu and Narva a problem is the abundance of former production areas or non-developed areas near the city centres, due to which the publicly open recreational areas have not been sufficiently developed (including beach and shore areas). Another problem is the transport arrangement, especially in city centres and in the directions exiting the city, the insufficient parking arrangements. There is also room for development in terms of public transportation arrangements and provision of light traffic opportunities. According to Estonian Statistical Office data, there were the most light traffic and bicycle roads in Tallinn in 2005 (15.5% of the total length of roads and streets), while the same figure for Kohtla-Järve was only at the level 1.4%.

In several cities, the unsatisfactory condition of the physical infrastructure of industrial and technology parks and low availability of quality rental space hinder the development of knowledge- and technology-intensive entrepreneurship. This limits the activity, cooperation and development opportunities for enterprises.

The social problems are acute in the cities (especially Tallinn and Ida-Virumaa), expressed in low safety and security and the scarcity of rehabilitation opportunities. The 'slummed' urban areas are a problem in the city of Kohtla-Järve. Among the urban-specific social problems, the issues of shortage of social residential space, their high level of amortisation and the limited access of social risk groups and low-secured population to them stand out – together with homelessness and the social spatial segregation in terms of residential spaces.

Among the Estonian urban problems, urban sprawl is important and it is especially acute in Tallinn, to a lesser extent in Tartu and Pärnu urban areas. The urban sprawl expresses itself in both the relocation of population from urban centre to suburban hinterlands as well as the growth of territories used by production and trade units in suburban green areas. Although the expansion of urban areas on the account of hinterlands is in medium reach a natural and inevitable phenomenon, it takes place in Estonia in a spontaneous manner and is pressed within a very short time-span. This inevitably brings along unplanned land use, overload of the infrastructure necessary for providing the local public services, underdevelopment of suburban public recreation areas and fast growth of transport problems. The fast growth of population in the new establishments has caused the overload of public service infrastructure in comprehensive education and childcare areas, in particular. In several new establishments in the suburbia of Tallinn there is an absence of centres that conform to modern requirements.

The development of urban as well as rural areas depends, on the one hand, on their internal capability to find and use specific development resources and, on the other hand, on their capability to concentrate efforts on getting rid of the bottlenecks rising from the current situation. High-quality living environment, active cooperation between companies and the public sector and local community networks will become more and more important development factors of the regions in the future. In view of this, there are no regions in Estonia without a potential for development. On the contrary, there is a lot of unused development potential in regions for drawing on their uniqueness (the original competitive advantage). For example, the **different regions** in Estonia **have rich,** in concept of Europe, **unique cultural and natural heritage,** which can be applied to the

service of local development in the context of promotion of cultural and nature tourism. Implementation of the potential of cultural and natural objects for promoting local development has been up to now hindered by their technical condition, limited accessibility and exhibition, provision with supportive infrastructure, small number of additional services, also weak links between the objects. At the same time lots of recreational and tourism spots are periodically overcrowded, exceeding the tolerance of nature as well as local people.

2.5. Environmental protection

In Estonia, the **environmental burden of economic activity is relatively large**, primarily due to the **ageing or insufficiency of environmental infrastructure** (water supply, sewage treatment, landfills, and external air protection facilities) but also to the character of the production technologies used.

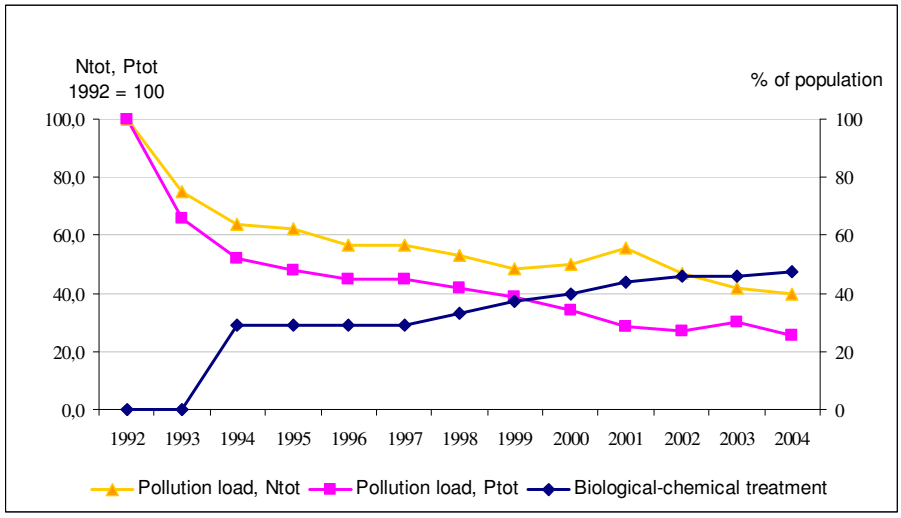
Thanks to small population density, a less intensive agriculture compared to Western-Europe and the efforts of a last decade that have been made in the environmental sector the high environmental burden has not damaged the environmental situation in most of the territory. Due to higher concentration of economic activity and population, the state of the environment is in some cases unsatisfactory, mainly in North-Eastern Estonia and Tallinn. In rural areas one the situation is relatively worse in intensive agricultural production areas.

In recent years the pollution of external air has been remarkably reduced in Estonia. The exceeding of pollution norms occurs primarily in Harjumaa and Ida-Virumaa, where production is located in a more concentrated fashion than in the bigger cities where transportation creates pollution. The issue of dealing with restraining the emissions of polluting substances is still acute. The main air contaminators and also largest emitters of CO_2 – the main greenhouse gas causing the climatic changes - in Estonia are the energy and transport sectors. CO_2 emission per capita in Estonia is continuingly among the highest in the EU: 14.2 tons in Estonia (2004) compared to 8.5 tons in EU-25 (2003). The largest stationary air pollution sources include the big power plants located in Ida-Viru County (North-East Estonia) and oil shale chemistry enterprises. Due to the continuously increasing number of vehicles, transport emissions of contaminants are still increasing. The only exception is lead, the emissions of which are decreasing as a result of the requirement to use lead-free petrol (since 2000). The taking into use of sulphur-free engine fuel (from 2006 on) will enable to reduce sulphur emissions in the future.

By the end of 2004, 65% of the Estonian water bodies were in good state but the objective has been set in the EU to achieve at least the good state of all water bodies.[7] The state of the water bodies is mainly deteriorated by discharge of insufficiently treated sewage and diffuse as well as point source pollution originating from agriculture. Large-scale investments into water protection projects made since the 1990s have brought about considerable reduction of the water pollution load (see Figure 9). Same time, the water treatment equipment of several cities is still inadequate. Although as of the end of 2004, the collection of wastewater in wastewater collection areas with over 2000 person equivalent through public sewerage system is accessible to approximately 89% of the population, only the operation of 67% of water treatment plants meets the requirements. Due to the low and uneven population density of Estonia, dealing with water pollution sources is very time consuming and costly.

[7] The good ecological state is determined on the basis of biological, hydromorfological and physical-chemical quality indicators collected during the monitoring process.

Figure 9. Reduction of pollution load in relation to increase in the level of water treatment, 1992-2004[8]



Source: Estonian Environmental Information Centre

The state of ground water is good in Estonia. The exception is the Ordovician water complex of the Ida-Viru oil shale pool the state of which is bad due to increased content of sulfats, minerality, coarseness and appearance of hazardous substances (primarily fenols). The surface and ground water in Estonia continue to be threatened by residual pollution sites (the deposition locations of oil shale industry waste like fly ash and half-coke, the old asphalt concrete plants, oil residue storages). The state of coastal waters is influenced by maritime transport in addition to the pollution load originating from land. In relation to the increasing maritime traffic in the Gulf of Finland and rest of Baltic Sea, the issues of coastal water protection are intensifying.

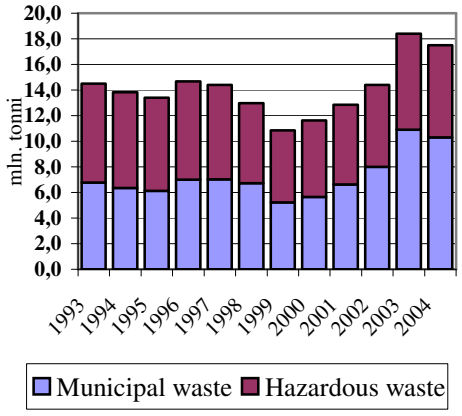
The main problem concerning the quality of drinking water is excessive iron content (affecting 30% of public water supply consumers); in places excessive fluorine content (2.5% of public water supply consumers) poses problems. 2004. As of the end of 2004, approximately 77% of the population consumed water from public water supply.

In terms of the volume of waste per capita, Estonia is among the first countries in the world due to the oil shale based energy production that is relatively unique in the world. In 2004, 17.5 million tons of waste was generated in Estonia. Roughly a half of this – mainly oil shale ash and oil shale production residue semi-coke - is qualified as hazardous waste (see Figure 10a). The average level of waste generation per capita in the EU is 3.5 tons/year, some 3% of which is hazardous waste. The average level of waste generation per capita in Estonia is approximately 13 tons/year, hazardous waste making some 60% of this volume.

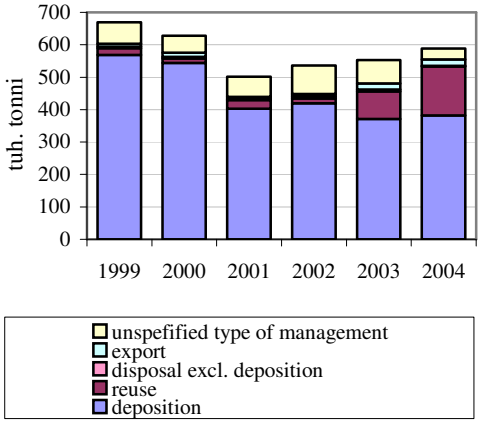
[8] Ntot – total concentration of nitrogen in treated waste water; Ptot – total concentration of phosphorus in treated waste water

Figure 10. Waste management in Estonia

A. Waste generation (in million tons)



B. Management of municipal waste in 1999-2003 (in thousand tons)



Source: Estonian Environmental Information Centre.

The development of waste prevention, reduction and re-use has been insufficient. Above all, achieving an the depositing of oil shale industry and oil shale based power production waste in a way meeting the requirements poses big problems. The volume of municipal waste is also increasing. In 2004, the average level of waste generation per capita in Estonia was 449 kg, which is still below the respective average level within the EU 25– 537 kg. A considerable part of municipal waste is deposited without sorting and at landfills not meeting environmental requirements. Same time, some success has also been achieved in the modernisation of waste management. In 1999-2004, the proportion of deposited municipal waste has been reduced from 85% to 65% of the total volume of the municipal waste generated. In 1999-2003, the level of reuse has increased from 3% to 15% (See Figure 10b).

Main natural resources in Estonia are: forest, oil shale, peat and fish stock**.** There are considerable environmental problems related to the use of each of them. Timber and furniture industry based on domestic material is among the most competitive export sectors in Estonia. The problem in using the forest is its insufficient post-cutting reforestation in private land - this endangers the preservation of some forest site types and habitats related to those in a favourable status, and worsens the species composition of the forest stands.

The major part of power production in Estonia is based on **oil shale** that is used as **an energy resource**, in addition is oil shale an important raw material to the chemical industry. Production of oil from oil shale is becoming more and more profitable due to appreciation of oil in the world market. Same time, the environmental load generated by the production and processing of oil shale is high. Peat is used as fuel, raw material for soil mixtures for gardening, and as bedding in agriculture second important strategic energy resource. Estonia is the third to fourth largest peat exporter in the world. This has brought about problems related to ensuring the rational and ecologically acceptable (sustainable) use of peat deposits because the miners often leave the less profitable layers unmined and do not recultivate the quarries. The fish stock of the Baltic Sea is in low due in terms of several important production cultures, which is why the allowed catching loads have been reduced from year to year. The restoration of fish stock is inhibited by the restrictions on the migration routes of transitory fish, illegal fishing, sea pollution and change of climate.

The diverse and **vast areas covered** with forests, mires and other **natural landscapes** in Estonia can be dealt with as a valuable natural resource providing different opportunities. Estonian heritage cultural landscapes with their semi natural communities have the highest species diversity among the habitats within our geo-botanical zone. The relatively high share of protected areas and the clean state of the natural environment enable Estonia to focus on the development of natural tourism and organic farming, differently from the highly urbanised Western Europe. Estonian landscapes are

mainly threatened by damage or total devastation as a result of extraction of mineral resources and establishment of industrial facilities as well as by degradation of landscapes as a consequence of discontinuation of their agricultural use.

To achieve or maintain a good environmental situation, it is necessary to monitor and evaluate the changes, influences and trends. The main source of environmental data is environmental monitoring. The environmental monitoring system of Estonia needs further development in order to satisfy the changed domestic needs and requirements set with international conventions. The primary needs are to enhance the national systems of air, water, soil and biological diversity and advance monitoring at the level of local municipalities and enterprises.

A high level of environmental education and awareness is an essential prerequisite for sustainable use of natural resources, reduction of pollution load as well as for reduction of health risks related to the natural environment. Environmental education starts from the educational system. According to the national curricula for basic school and upper secondary school, the topics of environmental and sustainable development should be integrated into all school disciplines/subjects. However, the implementation of practical nature experience, practical works, laboratory works, study visits or excursions is not guaranteed in practice (incl. the availability of necessary teaching aids). Environmental educational activities in general education schools are scarce. The possibilities to obtain and upgrade knowledge concerning natural and environmental field are very limited for young people learning in vocational schools and working, as well as for adults. Besides, the activities of non-governmental organisations enabling relevant hobby education are not systematic or consistent due to their project-based financing.

The environmental situation can always be threatened in addition to general pollution burden and excessive or misuse of natural resources also by environmental hazards. The hazards with the highest risk level in Estonia are extensive marine pollution (of highest probability due to an accident of oil tanker), extensive external air pollution, pollution of soil, ground water (due to transport accident at oil or chemicals transport) and extensive forest fire. In general, the Rescue Board is responsible for the localisation and liquidating the consequences of accidents and emergencies, the Border Guard bears similar responsibility at sea. The probability of marine pollution emergencies is estimated as high, i.e. once per 1-10 years, and the potential consequences are estimated as serious or severe – this is caused mainly by consequences to human life and health either directly and/or through the functioning of an essential area of life. Although the maintenance of the marital environment of the Baltic Sea is of international importance and has led the countries around it to cooperate closely in locating and liquidating the pollution, each state has to have developed its own relevant capacity. The level of required capacity has been determined mainly in the HELCOM recommendations. In relation to them Estonia's capacity and level of preparedness is insufficient in respect of prevention, detection, liquidation as well as remediation of the impacts. Also, the capacity of rescue structures to localise and remove of potential extensive pollution and extinguishing big fires at land is insufficient.

One important state function that ensures the sustainable use of environment is environmental supervision. The fields of fishing, upkeeping and excavation, waste management and forestry stand out in terms of the largest registered infringements. Although the capacity of supervision institutions has grown, their activities are to date insufficiently systematic and fruitful. The technical base for the supervision on water bodies needs strengthening.

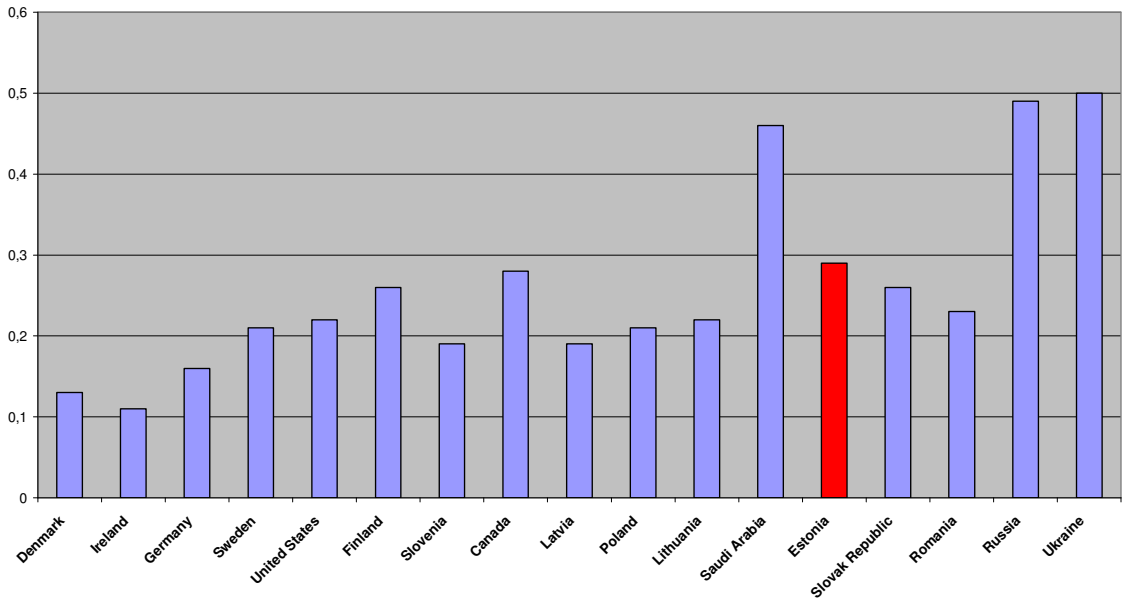
2.6. Energy

The share of domestic energy sources is high in Estonian energy resources and primary energy balance, being mostly based on oil shale. The main positive sides of large-scale use of oil shale are the energy supply security and little world market price dependency. On the negative side, the high environmental burden of Estonian energy sector, especially of power engineering based on oil shale. In the long-term perspective, it is worth noting that Estonia depends on one main and non-renewable energy source. Thus, oil shale can turn out to be source with low competitiveness in the long term due to its environmental costs. However, currently oil shale based power production

largely reduces the dependence on import of energy carriers and electricity export balances the general negative external trade balance. The main influences on the future of oil shale resource will be access and cost of energy resources in both the domestic and external markets, the significant impact of taxation on the energy sector and contribution to research and development.

In comparison to other EU countries, the Estonian **energy sector has very low efficiency in both production and distribution as well as consumption**. The energy intensity of Estonian GDP (the ratio of primary energy supply to GDP) has decreased considerably in Estonia, reaching below 1,000 toe/million euro in 2005 for the first time.[9] Nevertheless, in terms of this indicator of sustainable development based on both the data from Eurostat as well as International Energy Agency, Estonia is significantly behind the EU average level and the neighbouring states with comparable climate conditions (see figure 11). The low level of GDP has its own share in this, but there is considerable potential for more efficient energy use.

Figure 11. Energy consumption per GDP (PPP, USD'2000) for selected countries, 2004



Source: Key World Energy Statistics, IEA 2006

The main energy saving opportunities exist in housing, where the main weaknesses are the too big energy consumption of buildings, scarcity of energetic mapping of buildings, scarcity of energy auditors and the losses that occur in energy distribution. Estonian average energy consumption in buildings per square-meters is higher compared to the other EU member-states – in Estonia it stands currently at an estimated appr. 250 kWh/m^2, while in Finland and Sweden it is below 150 kWh/m^2. As a result of proper reconstruction and renovation of block houses 20-30% of energy saving could be achieved according to expert opinions, which could translate to an annual financial saving of up to 0.5 bln kroons thanks to reduced production and consumption of energy. Since the Estonian industrial infrastructure is relatively new, the energy efficiency situation there is at a satisfactory state and especially in relation to the housing stock.

The primary problems of the Estonian heating sector are heating networks that are nonconforming (over-dimensioned) to the current consumption and big losses – the average rated network run loss is currently over 15% (in Finland approx. 6%). Energy saving possibilities in heat production, transfer as well as at end user's is high.

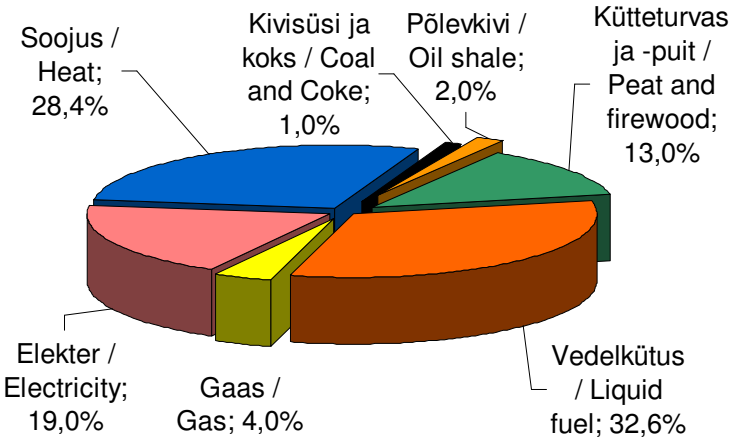
[9] toe – tons of oil equivalent

Estonian electricity system practically covers the whole territory and has strong synchronised connections with Latvian and Russian electricity systems and asynchronous connection to Finnish and there-by the Central European electrical systems. Connections between electrical systems increase their reliability, enable to decrease necessary back-up capacities, create joint electricity markets and optimise the operation and development of systems. One of the main factors influencing the development of energy sector will be the opening of energy markets and international cooperation. To ensure the electrical supply certainty own electricity production capacities should be possessed. Currently there is sufficient amount of them but in the nearest future there will be a deficit in electrical capacity because of unsuitable structure (not corresponding to load) of power stations, high age and hardening of environmental restrictions. To ensure investments into the modernisation of the electrical system in both electricity production, transmission and distribution aspects the market regulator takes into consideration the investment needs as one of the key components while harmonising the electricity prices. The investment needs of the Estonian electrical system until 2015 have been outlined in the Estonian electrical economy development plan 2005-2015.

The rise in the share of electricity produced from renewable energy sources will help to soothe the deficit of electrical capacity. The respective share rose to 1.1% in 2005, 10.5% of electrical energy was produced by using the co-production of electricity and heat. The share of renewable energy sources and co-production will increase in the Estonian energy balance, it has been agreed to reach by 2010 indicatively the level of 5.1% share of renewable energy sources and achieving the share of 20% for co-production by 2020 in domestic bruto consumption of energy. The main mechanisms that will ensure the additional use of renewable energy sources and co-production in electricity production, are the purchase obligation that is determined in Electrical Market Act and grants. Same time, it needs to be considered that the rise of the share of renewable energy sources can be restricted to some extent also in the future by the low profitability in production of electricity, lack of resources because of large-scale export of bio fuel with increased value (wood pellets and other), and peat, low hydro energetic potential and restricted possibilities because of structure of production capacities of electricity (lack of fast adjustable production capacities of electricity) to cover the unevenness in producing electricity.

Estonia imports all the gas and diesel fuel used in transportation. The main liquid fuels used in transportation comprised about 1/3 of the total final energy consumption in 2005 (see figure 12).

Figure 12. Final consumption of energy by energy carriers, 2005



Source: Estonian energy in figures 2005

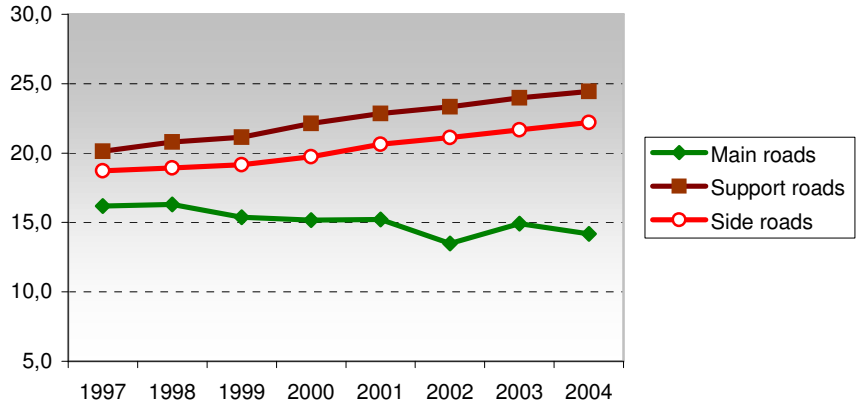
In order to reduce the dependence on imported transport fuels and to spare the environment, there has been instituted an excise tax exemption on bio fuel used in transport since the end of 2005 and as of November 2006 10 bio fuel permits have been issued. In 2005, 889,073 litres of bio fuel had been produced in Estonia. As of October 2006 4,908 thousand tons of bio fuel had been produced. 85% of this fuel has been shipped out of Estonia.

2.7. Transport

Relatively well **covered national road network** and good air and marine service with closer countries enable connections with different areas inside Estonia as well as outside and economic and cultural relations with neighbouring countries. It supplements essentially the opportunities generating from the geographical position of Estonia. Different from air and marine service, the land service with Europe is less developed. In addition there are **considerable deficiencies in quality and capacity of transport networks -** often the transport networks do not meet the needs of users despite the good territorial coverage, especially in rural areas.

For Estonian economy, the situation of transportation networks is essential from the perspective of transit sector development. The "bottlenecks" are becoming the major obstacles to smooth movement of additional transit cargo flows. Traffic jams of road trains in Narva border point will become an obstacle for the trade flow crossing the border – the growth of the number of cargo trucks in the border point was about 40% in both 2004 and 2005. Narva railway freight station is becoming tight and cannot intake additional freight, which will start to limit the development of freight, transit. Koidula rail border station is still not built for conducting elementary border and custom procedures and the border crossing there does not meet the Schengen agreement requirements. The Koidula border station would enable developing the transit transport to Moscow direction "passing St. Petersburg". Development of Paldiski ports is hindered by the lack of the rail detour in addition to the unsatisfactory condition of the rail infrastructure in the section between Paldiski and Keila. The latter is important for diminishing the environmental risks primarily required by Tallinn to take the hazardous cargo out of the densely populated residential areas.

Figure 13. Age of road covers (years).



Source: Ministry of Economic Affairs and Communications

As of 1 January 2005, there were 56,850 km of roads out of which 16,470 were national roads. The road network is relatively dense, 1.25 km/km² – in comparison, the figure for EU-15 is 0.84. At the same time the road quality, the technical condition and the road safety situation in many cases do not meet the needs of economy and expectations of people. The average age of road covers is over 20 years and growing (see Figure 13). During the last years, the condition of road covers of main roads has been remarkably improved. But on support and side roads and on the roads and streets belonging to local governments the decay of roads still exceeds the volume of repair works. An additional problem is also the (winter) road maintenance on side roads that the public transportation mainly uses.

Traffic management and supervision levels are insufficient to ensure safe traffic**.** The number of people killed in traffic accidents is still high; the number of traffic accidents and damage done for the

society by them is continuously increasing. In 2006, 201 people were killed in traffic in Estonia. Considering the size of the population, this is surpasses the EU average by 30% (and is about 2 times higher than in Sweden). The number of accidents has grown 50% compared to 2000. One of the important problems is also a low percentage of environmentally friendly cars in the rolling stock incl. especially among the buses, which together with other factors influences the air (specially town air) quality and hence directly the health of people.

The total length of railway lines in Estonia is 1,696 km of which 968 km of public railways. Estonia is among the last European states in terms of density of railway network and there is no railway connection to Middle-Europe. Railway is electrified only in the vicinity of Tallinn in East-West directions and the length of it forms 13,6% of total public railway length. Infrastructure of railways in Estonia was privatised, but since the end of 2006 the rail infrastructure is mostly in the state ownership. The problem has been so far the small investments made in the public interests in railway infrastructure which influences the increase in capacity, operation of passenger railway traffic (the speed of trains has not sufficiently increased) and achievement of safety and environmental aspirations. The lacks in the rolling stock of passenger trains is another problem as due to little investments the depreciated coaches are not substituted by new ones. A major concern is the delays of passenger trains due to the arrangements of infrastructure maintenance and the traffic management. Estonia does not have passenger train connection to other EU states.

Transport-related environmental burden is rather large, especially in terms of pollution burden on the external air. In addition, the pollution threat associated with railway accidents is big for Estonia. Majority of petrochemicals and other dangerous cargo is transported through densely populated areas, incl. Tallinn, Tartu and Narva. Increase of noise and vibration, especially during the last years due to additional cargo movement, has become an increasing problem primarily in urban areas but also in the vicinity of other inhabitation. Mainly with the purpose of saving costs, the number of guarded level crossings has decreased by 58% during 1995-2005; however, the number of accidents at the level crossings has constantly increased.

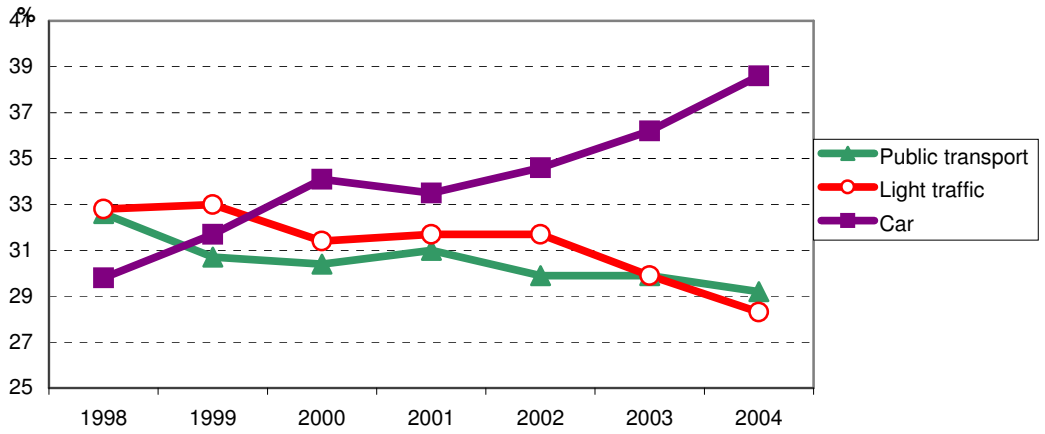
Majority of international goods and passenger carriages in marine transport is performed through the ports pertaining to state owned AS Tallinna Sadam. The privately owned ports in Sillamäe, Pärnu and Paldiski Põhjasadam have an increasing potential. Besides the ports operating the foreign shipment lines, the ports operating the local connections between islands need expanding and reconstruction to ensure faster and safer traffic for ships, passengers and goods. More important ports in respect of local traffic belong to AS Saarte Liinid. In the interest of developing the cooperation and cohesion of regions and states it is also important to develop small harbours. The yachting harbours play a role from the perspective of tourism.

There is 930 miles of seaways with navigational marking. They all need hydrographical measurement and reconstruction for making traffic safety more efficient and satisfy the needs of modern shipping traffic needs by 2007 according to international declarations. The existing means and their capacities (ships and equipment) do not meet these needs in respect of measurement and maintenance duties and they cannot ensure the sustainable development in that area. In case of cold winters the ice-breaking problem has been solved to date by renting the icebreakers from neighbouring countries but in longer perspective this solution is not safest or cheapest and does not also give us sufficient security on the smooth functioning of marital transport.

Tallinn, Tartu, Kuressaare, Kärdla and Pärnu airports and *City Hall* helicopter square are open for international air traffic. Tallinn airport becomes clearly narrow considering the international aeronautics standards and it needs further reconstruction and expansion. The airport also has no considerable public transport connections to the city. For domestic airlines, Kärdla airport in Hiiumaa and Kuressaare airport in Saaremaa are important for domestic connection. But there is also need to ensure connection with small islands. Considering the ever-increasing volumes of air traffic, incl. remarkable intensifying of international flights to Estonia and from Estonia, the constant implementation of measures to ensure the correspondence of airports to international requirements and environmental protection considerations.

Besides the problems in transport infrastructure, there are also remarkable **deficiencies** in the **development of public transport.** An estimated 209.4 mln travels were made in public transport in 2004, half of them in Tallinn. 2/3 of these rides were taken by bus, approximately 30% by electrical transportation (tram and trolleybus in Tallinn) and only 2% by train (incl. 1% by electrical trains). The percentage of public transport in towns is 30-40% of the total number of travels. Unfortunately, the increase in the wealth of society has involved the increase in number of cars and the fall of popularity of public transport (see Figure 14). To decelerate the continuing fast growth of car use and the problems it causes for both the living and natural environment, it is becoming important that the state would get actively involved in transport development by a policy of preferential development of public transport.

Figure 14. The change of transport choices for going to work (%)



Source: Estonian Statistical Office.

In conditions of low population density, the cost price of public transport is inevitably high which has determined the use of 'sparse' schedules in rural areas. The purchasing power of people does not enable to increase the ticket prices and the limitedness of budgetary means of state and local governments has not allowed to take the public transport support to the level that that the public transport could provide a considerable alternative to private vehicles with more dense traffic frequency, speed and comfort. The infrastructure for servicing passengers and system of preferential treatment of public transportation has not been developed to a sufficient degree. The rolling stock of public transport is ole and deriving from the insufficiency of investments the technical condition of the rolling stock is poor and an average age of vehicles is high. An average age of Estonian tram and train cars is 20-30 years, of county buses around 17 years and more.

The state and the regions have not been able to develop integral and integrated public transport arrangement system and there is no organisation that could deal with it. There is a situation where trains and buses do not complement each other but compete in parallel lines. Poor technical condition of the railway infrastructure does not allow the passenger trains to move always faster than buses which is why the advantages of rail transportation are not realized (especially the avoidance of impasses and large carrying capacity). The condition of railway stations and platforms is unsatisfactory. Very 'sparse' schedule of electrical trains makes people use other possibilities for movement around Tallinn on peak hours that substantially reduces the passage capacity of transportation infrastructure in the capital and its vicinity.

A comfortable, environment-friendly and safe land transport is a train, specially the electrical train. Passenger train with its high carriage capacity is one of the most efficient means for decreasing the traffic load on roads and streets. Deriving from thin population density, Estonia's opportunities to use passenger trains are quite limited, but e.g. around Tallinn, towards operating Tartu and Narva directions the use of passenger trains is justified.

Public transport is important in both the urban traffic where the main problems are related to passage capacity of streets and the related time losses in the transport, but also in inter-regional connections. An important keyword in the context of the development of transport connections has become land use and spatial planning.

Development of light traffic infrastructure is mainly the area of responsibility of local governments. In towns and vicinity of urban communities there are not enough bicycle roads and there is no infrastructure to allow use of bicycles as alternative means of transport (e.g. no parking lots around working places and public transport stations). Development potential of light traffic is used in bigger part and the infrastructure of light traffic is well behind the development.

2.8. Information society

The development of information and communication technology (ICT) and the relevant knowledge and skills people have contributed to the fast development of ICT in the world during the last decades. Estonia is in respect of **adoption of ICT and the development of telecommunication network** one of the leading countries in EU as well as in the world.[10] Majority of Estonian schools, public sector institutions and enterprises have Internet connection. 90% of Estonian population lives in 2007 in areas where broadband connection is available. There are only some single market failure areas left uncovered by internet connection, mainly due to the natural environment inhibiting the access to connection (e.g. cupola landscape or large forest massives).

At the same time, the SMEs do not use ICT solutions much in their main processes – while more than 1/3 of major enterprises accept orders over internet, only every fifth SME does so. Only half of the households have Internet connection at home and the need for it is bigger mainly in areas with scattered population where the distances are longer and the availability of services is more complicated while the spread and quality of Internet connection is uneven. 52% of population uses Internet in the capital, but only 39% in rural areas.

In market failure areas and less insured society groups, the access to information society is complicated and there-by there is a danger of increasing digital stratification (digital gap). The use of computers as well as Internet is different in different socio-demographic groups. The use of computer is substantially influenced by age, education, place of living and income. Use of Internet is most strongly varying by age and income groups, decreasing remarkably in older age groups and increasing respectively in groups with higher income. In case of having the access, the development of information society is sometimes hindered by the limited ability of the people to use created solutions.

The ICT solutions in Estonia are developed in public as well as private sector: public e-services, the biggest online public key infrastructure in Europe, electronic ID card is extensively used, internet banking, etc. At the same time little emphasis has been put on horizontal solutions while creating the ICT solutions, especially in the public sector. Very often the quality of area/process cannot be changed substantially in creating the solutions as not enough attention is paid to coordinating the processes with the other already created ICT solutions. A separate problem is also the insufficient partnership between private and public sector in ordering and development of ICT solutions. Up to now the public sector has proceeded from a principle of possibly cheap purchasing which does not motivate the ICT area companies to offer more innovative and the best solutions.

The competitiveness of Estonian ICT companies is low. The turnover of companies is formed by 30% by public sector orders and export comprises only ca 10%. Behind the low competitiveness of the sector is the small size of the companies, their fragmentation and low level of specialisation – but the issue of shortage of necessary qualified labour force is a rising concern. Cooperation between the

[10] European Commission Information Society Benchmarking Report 2005; Global Information technology Report 2004-2005; The eDemocracy forum ranking of 2005: Top 10 Who Are Changing the World of Internet and Politics.

ICT sector companies is not orientated to increasing the export opportunities. The added value received in ICT production is small as the share of subcontracting is big.

2.9. Research and development

Insufficient attention is paid in Estonia to developing local knowledge-based competitive advantages. Moreover, neither is there built absorption capacity necessary for technological transfer nor is quality competition base shaped for attracting foreign direct investments. In Estonia, the proportion of **investments into research and development (R&D)** is **relatively small** by comparison with other EU countries. Especially modest are the investments in R&D made by enterprises. The total R&D expenditure in Estonia formed only 0.88% of the GDP in 2004 (the average of EU25 is 1.90%), while the investments made by the private sector formed 38.9% (EU average 64.2%) of it. The biggest financier of R&D activities was the public sector (44%); although in 1998-2004 the enterprises' share of financing grew from 19.7% to 38.9%. Estonia has held the first place in EU in terms of the growth of R&D total expenditure (19% a year in 2001-2004) as well as the growth of enterprise sector R&D expenditure (25% a year).[11] Yet, there is still quite some growing potential in terms of R&D intensity considering our low starting position.

Due to the modest volume and structure of investments, the **R&D infrastructure** is in a bad state and **outdated**; over 80% of the infrastructure (a large part of it inherited from the Soviet period) needs to be modernised**.** Such infrastructure fails to enable conducting top-level research and educational activities, thereby restricting the participation in international networks since the country is attractive to neither foreign companies nor foreign scientists. Moreover, the outdated infrastructure and low attractiveness set limits to increasing the volume of contractual R&D and cooperation with enterprises.

Cooperation between R&D institutions and enterprises has so far been relatively mild, including in comparison to the cooperation occurring between enterprises in the supply chain (see figure 18). On the one side, the problem is the small demand of enterprises for R&D. Its cause is that enterprises are not very active in the knowledge- and skill-intensive sectors, which is why the R&D activity does not match their current business models. Also, there is a lack of competent human resources within the enterprises to manage R&D and innovation. On the other hand the cooperation between enterprises and R&D institutions is inhibited by the weaknesses on the R&D side: the low orientation of research to applicability, the shortage of human resource corresponding to the needs of enterprises, the lack of necessary physical infrastructure for providing R&D services.

The development of human resource for R&D development is of critical importance, not considering the current structure of the domestic economy and limited domestic market, but according to the desired foreign direct investments and the developmental directions of global economy. The number of top specialists with the degrees that are trained does not ensure the sustainability of higher education and research nor does it cover the needs of economy and society outside higher education and R&D institutions. **Insufficient human resource** is the limiting factor for the development of entrepreneurial R&D as well. There exists currently in Estonia the danger that the active part of trained specialists will leave for abroad since the small growth of R&D investments and the structural problems of the economy inhibit the creation of the sufficient number of new suitable jobs. This is additionally favoured by the condition that the profession of lecturers and scientists, engineers and innovators is not sufficiently valued in the society.

In 2004, there were altogether 5.0 scientists and engineers employed per 1,000 employees. The relevant average of the OECD was 6.5, in Finland 15.8 and in EU on average 5.8. Although the number of researchers (in calculation of full-time work) features a growing trend, the backwardness vis-à-vis developed countries is big. Calculatedly, we are lacking, for example, 500 full-time employed scientists and engineers to reach EU average level, for example.

[11] Statistics in Focus, Science and Technology, 6/2006

However, despite the low investments and outdated infrastructure, there are several fields of science where there are internationally competitive research groups in Estonia (e.g. biomedicine, material science, chemistry, environmental sciences). Success has also been achieved in international R&D programmes and participation in international cooperation. In 2004, 17% of R&D investments came from foreign sources and over half of the publications by Estonian scientists were published in cooperation with researchers from other countries. However, due to low investments in research and development, Estonia is unable to fully utilize the potential rising from internationalisation in the form of international cooperation as well as increased communication and learning opportunities. This is indicated by the insufficient academic mobility among the doctoral students, academics and researchers as well as by the comparatively incidental and modest participation of enterprises in EU and other international R&D programmes. According to the EU framework programmes then, Estonia has been indicated among the most successful new member states; however, its input into EU common research is crucially below that of the old member states.

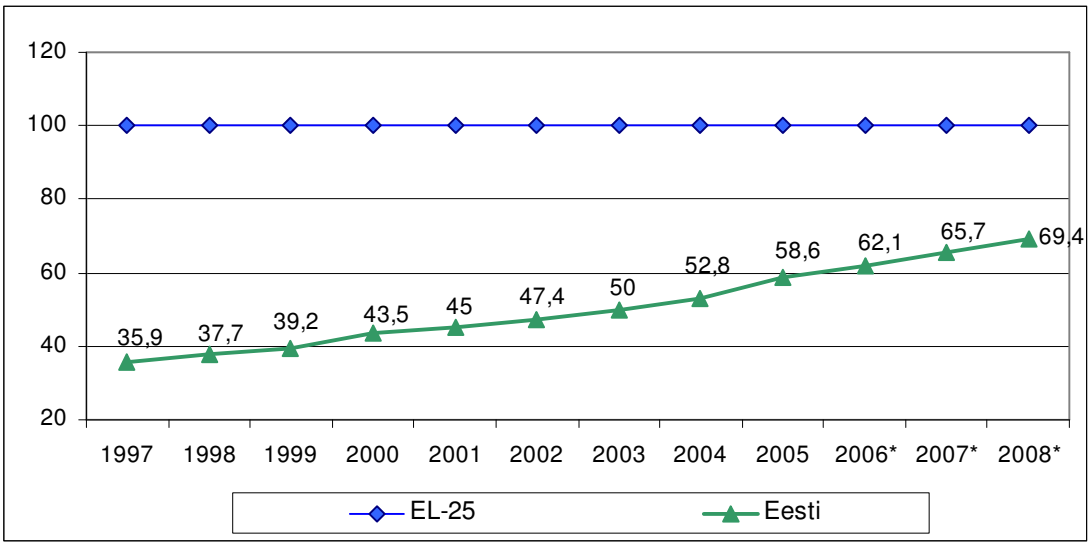
Both the human as well as material resources need to be focused, specialisation and division of labour deepened in order to raise the capacity of R&D and higher education system and achieve success on international level – to build the relevant **critical mass of R&D** that is currently lacking. The Estonian R&D strategy for 2002-2006 determined the fields to be considered important from the perspective of Estonian development and in need of preferential development to be: ICT, biotechnology and material technology, also some important socio-economic fields. However, so far the national programmes in the previously identified key fields have not been initiated and also the orientation of innovation measures to the needs of traditional economic sectors has not been sufficient.

2.10. Entrepreneurship

There were 44,112 operating business organisations in Estonia in 2005, 99.5% of which are classified as small- and medium-size enterprises (SMEs) based on the number of their employees. It translates to 33 operating enterprises per 1,000 residents. In addition to the business organisations, there were 21 671 self-employed entrepreneurs. The increase of the number of enterprises has been on average 6% per year in the last decade, but the rate of survival of new enterprises is only 63% - more then a third of the enterprises end their operations within 3 years after registration. The reasons for the low survival rate of the enterprises are partially hidden in the activity environment of entrepreneurship – the capital markets, legal environment, entrepreneurial culture and support structures.

After the restoration of independence, various enterprises have emerged in both the service as well as industrial sector after the changes of the economic structure that have strong market potential for operating in local market and partially also the markets of other countries and good perspectives for further development. This has been aided by the consistent growth of labour productivity and the convergence towards the average level productivity in the EU-25. In the last 10 years, the ratio of the productivity of Estonian enterprises has increased by 6.2% annually on average. Yet, the starting position of our enterprises has been so low that at this point our labour productivity comprises only a little over 60% of EU-25 average.

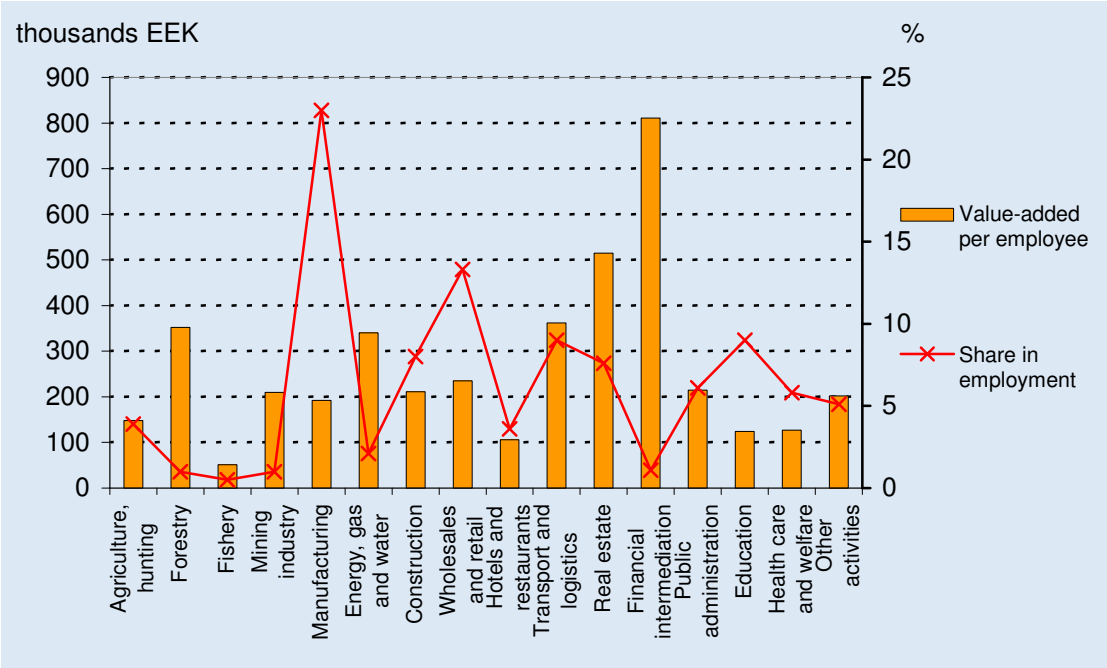
Figure 15. Labour productivity per employee, % (EU-25=100, 2006-2008 is forecast)



Source: Eurostat

The development of economic sectors has been different in terms of growth of productivity and creation of added value. In several sectors, e.g. telecommunications; financial intermediation; air transportation; electricity, gas and water supply, both growth rate of added value per employee and the level of added value have been considerably higher than the Estonian average. Despite that, the current Estonian economy faces the situation where employment is dominated by enterprises, especially in industrial production, that are considerably behind the developed industrial states in terms of productivity and profitability per employee (see figure 16).

Figure 16. The sectoral division of the Estonian economy by labour productivity in 2005



Source: Estonian Statistical Office

An important burden to implement activities that increase added value creation is the scarcity of necessary financing capital. The scarcity is primarily common for starting and small entrepreneurs, who are facing complications in securing capital from the private sector due to insufficiency of the

collateral, low own-financing capacity and other factors. The financial instruments necessary for the realization of new (especially risky) ideas and financing the fast growth are not available and even the skills of existing enterprises to receive financing from the market is limited. Several support schemes have been initiated by the state but they have not proven to be sufficient. The access to capital, including the access to both the loan capital as well as co-financing of investments has not enabled to utilize the developing potential of hopeful and existing entrepreneurs.

Foreign direct investment (FDI) has played a very important role in the productivity rises, economic restructuring and technological modernisation in Estonia so far. The per capita volume of FDI in Estonia has been the highest in Middle- and Eastern Europe.[12] Foreign-owned companies produce almost ¼ of the Estonian GDP. Since 2001, the share of reinvested profits has been increasing and the volume of new greenfield-type investments has not increases much.[13] In 2000-2005 the FDI has mostly gone to financial intermediation, manufacturing, wholesales and retail sector, and transport, logistics and communications sector. The share of investments going to the real estate sector has increased in previous years significantly. The real estate boom is also reflected in the fact that biggest share of profit (more than 50%) earned by foreign investments in 2003-2004 came from two sectors alone – financial intermediation and real estate. Presumably the very fast growth of debt burden and real estate sector will slow down quite soon which creates a challenge for Estonia in keeping to attract FDI.

In addition to other factors, productivity growth is hindered by the country's **weak international market position** deriving from its scant marketing experience and the scarcity of internationally recognised brands. The development of specific local competitive advantages (market niches, brands clusters, etc) has still been rather insufficient, as the enterprises have mainly laid emphasis on process innovation and not on developing and marketing of new products and/or services. The emergence and development of clusters that would create competitive advantages has been restrained by the lack of a critical mass of strong enterprises acting in one sector, which amplified the need for Estonian enterprises to find and develop cooperation with enterprises outside Estonia.

Only 11.7% of Estonian enterprises operate in foreign markets. Compared to 2003, this indicator has even decreased – then 15% of companies exported their goods. A little more than half (54%) of the big companies export as do almost the same share (48%) of medium-sized enterprises, but only a quarter (26%) of small-sized enterprises and very few (7.5%) micro enterprises. Among the methods chosen by Estonian exporters for entering markets, the most widely spread methods are the use of agents and distributors in the target country (40%), and subcontracting (34%). This to some extent reflects the limited marketing capability of enterprises. According to a survey of exporters, mainly own production is exported (51%), while subcontracting forms 25% and mediation 24%. Machinery and equipment dominate Estonian exports (28%), wood and wood products (11%) and metal and metal products (9%), the exports of chemical products have also increased fast.[14] Despite the EU accession related jump in the exports, in several labour-intensive sectors (e.g. textile industry, etc) has the growth of export volume slowed down or even fallen due to the rise of labour costs. [15]

The opportunities of using cheap labour force that has been offering the competitive advantages to Estonian entrepreneurs in both the local and foreign markets are starting to diminish. The fast growth of real wages and the rise in employment over the last years have decelerated the creation of added value. Small production capacity, low productivity, high costs and risks and little experience restrict the entry of entrepreneurs to foreign markets. In order to increase the volume of exports, there is a need to reorient from subcontracting that is losing competitiveness to products and services that offer greater added value.

[12] UNCTAD FDI Database, http://www.unctad.org

[13] A greenfield enterprise is a new enterprise that the investor has established 'from the scratch', usually to a formerly unused land (it does not cover the transition of production activities to an already existing production building and also not investment into already existing enterprises).

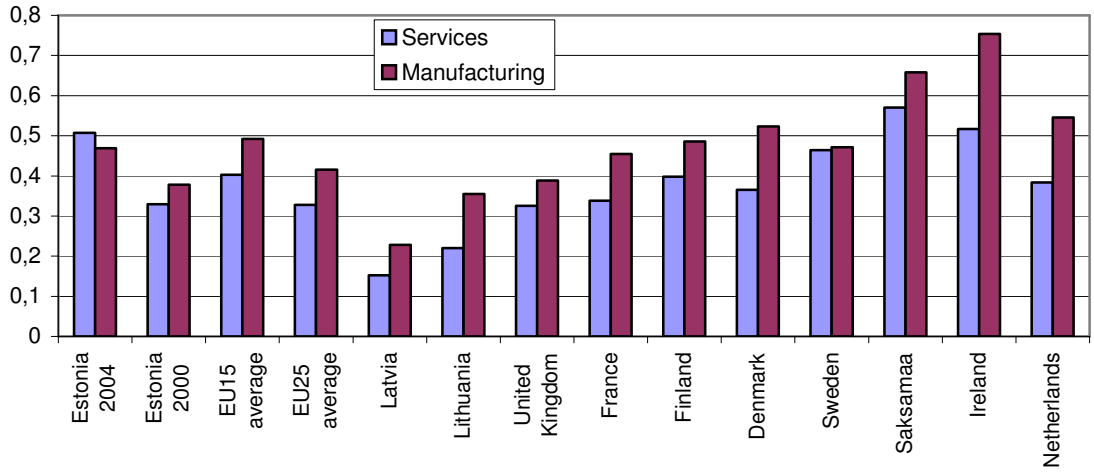
[14] Estonian Statistical Office, the unadjusted date of 2005.

[15] Estonian Statistical Office

Although entrepreneurs need to invest into reshaping of their processes to increase significantly the added value that enables to improve the market position, the capital stock investments are still directed mainly at purchasing and renewal of building, establishments, machinery and equipment. **Too little is invested into research and development and innovation.** Although the Estonian private sector R&D expenditure were growing the fastest in the EU in 2000-2004 (average level of 16.7% a year), the R&D investments of Estonian enterprises comprised only 0.42% of GDP compared to the EU average level of 1.22% in 2004. Many enterprises have until now been one part of the value chain of foreign entrepreneurs, focussing on utilizing the cheap labour and other resources. This has led to the situation where-by in Estonia the activities with little knowledge- and skill-intensity dominate as a result of structural changes in the economy. For example, the level of employment in mid- and high-tech industry and services comprised 7.57% of total employment and that is among the lowest levels in Europe (EU average in 2005 was 10.14%). The Estonian enterprises have lacked to date the direct need to invest into R&D and innovation; the market position has been attained by the already existing operating principles. Many entrepreneurs also lack the experience in developing new innovative products and services as well marketing them internationally.

The share of innovative enterprises rose from 36% in 2000 to 49% in 2004 that exceeds the EU-15 average of 2000 – 44%. The investments of enterprises to development activities have increased somewhat as well since the ratio of innovation costs to turnover has increased from 1,2% in 1,6% in the same period – but its still lags behind the EU average in 2000 (2.12%).[16]

Figure 17. The share of innovative enterprises in 2004



Source: Estonian Statistical Office

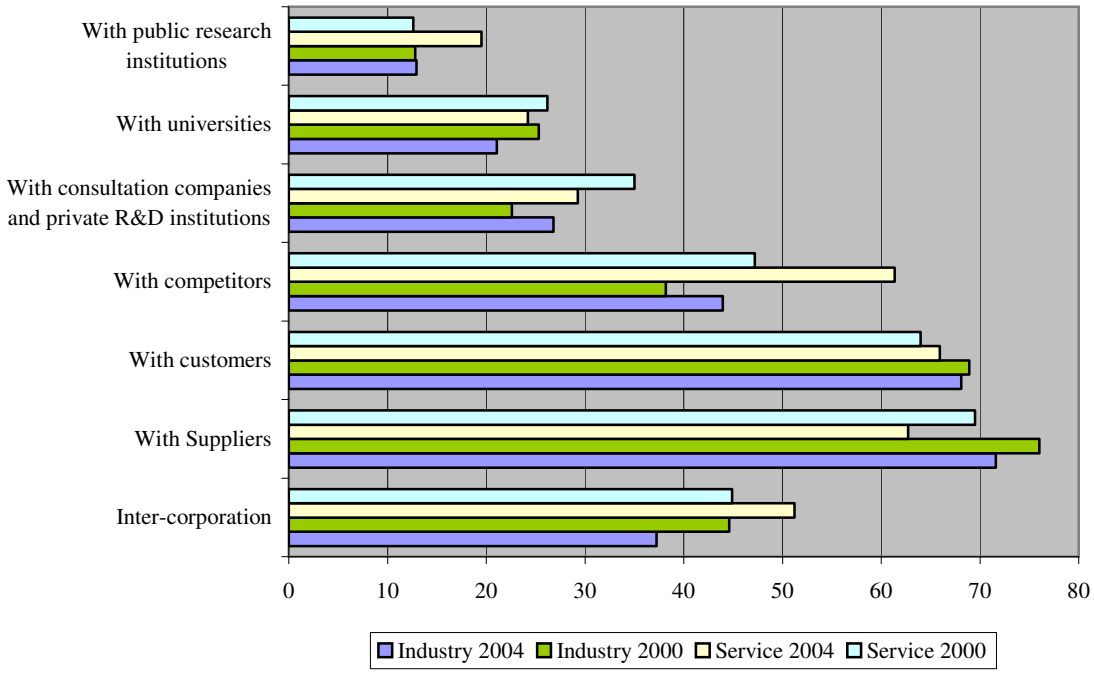
Despite the intensification of development activities, the structure of innovation expenditure has remained the same over the years. The most significant investments are made for procurement of new machinery and equipment (almost 2/3 of innovation expenditure), and the training activities related to their application. In European companies, on the other hand, of a similar calibre is the expenditure on internal development activities, while only 1/5 is directly spent on obtaining equipment. Hence, the Estonian companies concentrate on process modernisation, and not enough on developing new products and services. Therefore only 5% of Estonian companies can be classified as strategic innovators who are potential developers and distributors of "star products".

The emphasis on process renewal is also evident in the cooperation habits of entrepreneurs in the field of innovation where the main partners are the suppliers and customers and cooperation with universities and R&D institutions occurs almost 2.5 times more rarely than with suppliers (see figure 18). On the one side, the low level of cooperation can be explained by the structure of the Estonian economy and the low entrepreneurial demand for R&D it implies; on the other hand the cooperation

[16] Estonian Statistical Office, 2006.

between enterprises and R&D institutions is inhibited by the low orientation of research to applicability.

Figure 18. The structure and division of innovation-related cooperation partners of innovative enterprises (%), 2002-2004 and 1998-2000



Source: Study of the innovative activities of enterprises (CIS IV), Estonian Statistical Office

The existence of qualified labour force is the key factor from the standpoint of enterprises' opportunities for innovation and growth. According to a Saar Poll survey of 2005, **23% of entrepreneurs regarded the shortage of people with the necessary skills as the major factor hindering development.** Skilled labour is extremely hard to come by. Despite the fact that several enterprises have problems with finding appropriately trained employees, only 61% of Estonian businesses deal with training; in 2004 only a fifth of the enterprises had trained their whole staff in one way or another. Entrepreneurs have not perceived the influence of training on competitiveness, and therefore fail to see training as profitable investment. The renewal capacity of enterprises is additionally inhibited by the shortage of highly qualified innovation specialists, primarily the designers, marketing managers with international experience, etc.

Only 35% of Estonian managers have attended longer managerial courses and 57% have attended short courses. In every fifth enterprise more than half of the managers are professionally trained, whereas in 53% of the enterprises no manager has higher education in economics. However, the qualification of managers in managing the growth and development, and internationalisation of enterprises is a critical factor. Furthermore, low competence in innovation management and low awareness of innovation in society as a whole are problems as well.

Preparation of suitable employees is also restricted by the limited mobility of students and scientists between the academic and entrepreneurship spheres, incl. weakly developed traineeship schemes in Estonia by comparison with several EU countries.

The development of Estonian enterprises and creation of new jobs is hindered, among other factors, also by the **little entrepreneurial nature of people.** Estonians do not want to be entrepreneurs; they have neither necessary knowledge nor skills for entrepreneurial activities. According to calculations by the *Global Entrepreneurship Monitor* (TEA) methods, entrepreneurial activity in Estonia

forms 5% - it means that at the moment only 5% of all people in working age are either busy starting up their own business or have started up one during the last three years. At the same time, 61% of the population has never thought of starting own business, and the proportion of potential entrepreneurs (those who are planning to start their own business) makes up only 9%. The main obstacles to establishing an enterprise are: lack of ideas, knowledge and skills, hardships in access to capital and the complicated nature of administrative procedures. Higher valuing of entrepreneurship, entrepreneurial nature and creativity in the society could help to increase the number of potential entrepreneurs.

The relevant support structures whose function is to encourage people to come up with business ideas and start new enterprises − such as technology parks and incubators as well as technology transfer units − are at a comparatively early development phase in Estonia, which is why the conditions for raising entrepreneurship activity and starting innovative enterprises are not favourable enough. The infrastructure necessary for the growth and development of research and technology parks is insufficient, the assortment of support services offered is scanty (e.g. there are no proper conditions for experimenting and testing, no support to patenting and creation of prototypes, etc), and the number of qualified employees trained to support the development of enterprises is low.

Estonian enterprises are mostly very small, and hence they are more sensitive to changes taking place in their environment, less capable of research and development activities, and unable to take big orders to participate successfully in international trade. **Cooperation between companies is insufficient**; therefore it is more difficult to overcome the restrictions to development proceeding from the small size of enterprises, scanty R&D investments.

In practice, there is basically no creative industry sector in Estonia yet. Both the general public and people involved in entrepreneurship and culture know quite little about this domain. According to world experience, creative industries have development potential especially in the context of regional and local development. Until now, however, the Government has devised no policy for supporting this sector, although the basic research has been done. It can be pointed out that the factors directly limiting the development of creative industries include the deficiency of the management, business and marketing skills of the existing and potential future enterprises of the sector; the limited nature of the infrastructure and support mechanisms (e.g. education and training, entrepreneurship and export support and other), and placing insufficient value on creative education and creativity in education as input into entrepreneurship as well as into society in a broader sense.

Tourism forms a notable part (8%) of Estonia's GDP and often has a key role in the development of regional and local entrepreneurship activity and environment. Up to now tourism services in Estonia have regionally mainly converged around Tallinn and somewhat less around Pärnu. Tourism in Estonia is seasonal in nature, which diminishes the sector's international competitiveness. Moreover, foreign visitors often stay only for a short time since there are not enough attractive services (sightseeing and leisure opportunities) on offer or information about them (planning the trip in their country of residence, or when they are in Estonia) is not easy to find. Lack of information about Estonia in the more distant Western and Southern European countries is a significant disadvantage since people from those countries account for the majority of tourists travelling to European countries.

The development of Estonian tourism is inhibited by little diversity of the services offered. The sector concentrates on mass tourism; the readiness of entrepreneurs to take risks and develop services for narrower customer segments is low; instead of innovation in product development, copying is preferred. The resources for making investments are insufficient, especially in regions with a lower demand for tourism. Also, services are of uneven quality and service providers are not sufficiently customer-focused. In connection with fast development of the sector, a shortage of qualified labour, especially of front-line staff, is becoming evident. Already now it is limiting the development of tourism services especially in rural areas.

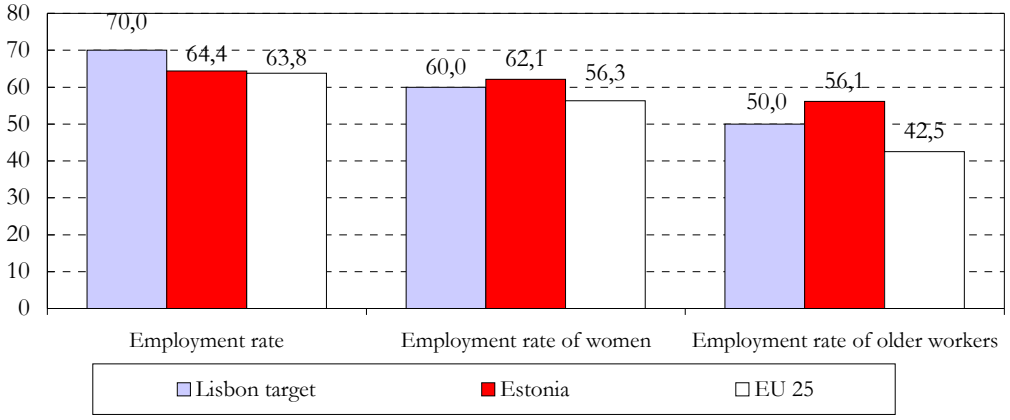
2.11. Employment

Estonian labour market is about to emerge from the phase where the main obstacle to higher employment was the shortage of jobs. Starting from mid-2000, the jobless growth that dominated in the 1990s was replaced by a steady increase in employment. The main reason behind the rapid growth of employment is dynamic economic activity, especially in trade, construction and manufacturing.

By 2005, employment rate had reached 64.4% i.e. 586,300 people aged 15–64 were employed. This indicates that a significant progress has been made over the last 5 years. Unemployment trend has also been favourable in 2005, unemployment rate decreased to 7.9% achieving the lowest level in last seven years. There were 52,000 persons unemployed in 2005.

Europe has set three main targets related to the labour market: by 2010, the member states must take all necessary measures to increase the employment rate to 70%, the employment rate of women to 60% and the employment rate of older workers (55 to 64) to 50%. Estonia has already achieved the objectives regarding women and older workers by 2007; the objective of the employment rate is still to be achieved (see Figure 19). The main reason for the high growth rate of older workers has been besides rapid economic growth the gradual rise of retirement age.

Figure 19. Estonian and EU labour market situation compared to Lisbon objectives in 2005 (%)



Sources: Estonian Statistical Office, Eurostat

Regardless of the decrease in overall unemployment **certain risk groups can be distinguished whose integration into the labour market has been complicated** due to various reasons – there exists **structural unemployment**. These risk groups are primarily: young people (age 15-24), long-term unemployed, disabled persons and non-Estonians (see Figure 20).

The youth unemployment rate has been very high since 1999 but showed significant decrease in 2005 (by 5.8 percentage points) remaining at 15.9%. The reasons behind it are high dropout rate, especially from vocational schools and the mismatch of their obtained education and the labour market needs.

The (un)employment situation is characterized by significant regional differences – average level of employment varied in 2005 from 5,1% in Central Estonia to 16,2% in North-Eastern Estonia. Across the counties, the high unemployment levels in 2005 were in Jõgevamaa (16,9%), Ida-Virumaa (16,2%) and Põlvamaa (12,4%). On the other hand, the unemployment in Võrumaa, Valgamaa, Raplamaa and Saaremaa remained under 4%.

There were 27,900 long-term unemployed people in 2005 and they formed 53% of all unemployed people (or 4.2% of labour force). The number of very long-term unemployment is high (job searches

of over 24 months) – in 2005 almost 2/3 of long-term unemployed had looked for a job for more than two years. The long-term unemployment is caused by radical changes over past 15 years in the structure of Estonian economy and export markets as well as by the insufficient range of measures targeted to this risk group (among the active measures in 2005 labour market training and vocational guidance, respectively to 9852 and 9494 unemployed or 14% and 13% of the unemployed according to Labour Market Board, were mostly offered to the unemployed). Due to the persistence of long term unemployment there is a big amount (about 14,700) of discouraged persons who would like to work but have given up job search and become inactive.

The unemployment rate among non-Estonians (12.9%) is remarkably higher than among Estonians (5.3% in 2005), the main reason being insufficient knowledge of Estonian language. There are no significant differences of unemployment figures among men (8.8%) and women (7.1%, 2005.a). The employment rate of disabled persons (26% in 2002) can also be regarded as traditionally low, deriving *inter alia* from the attitudes of both employers and disabled persons as well as the lack of active labour market measures specially targeted to this group until the beginning of 2006.

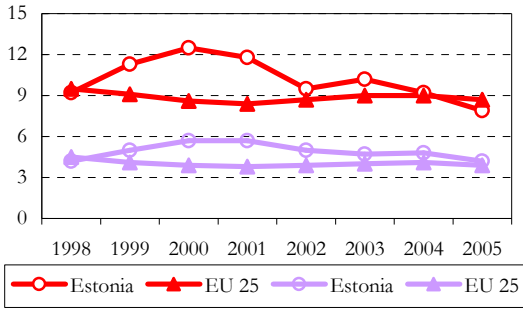
In addition to unemployed people, there are also some inactive groups that do not participate in the labour market – the already mentioned aged workers (incl. retired people), disabled people and discouraged people, but also people with care duty of a family member (16% of inactive people aged 25-49 years or 10,600 people in 2005) and people who are inactive due to health reasons comprise altogether a significant potential labour force resource.

While covering the labour force needs the opportunities and limits arising from immigration and emigration of workers needs to be considered as well. There are some sectors in Estonia where there are emerging serious hardships in finding suitable labour force, which is why labour shortage has become the main problem instead of unemployment – and given Estonian demographic situation, can remain a problem unless thoroughly addressed. The reasons for this are on the one hand the demographic processes and the mismatch between qualifications and labour market needs as well as fast development of certain sectors (e.g. metal industry, production of electronic and optic devices, construction). On the other hand, the problem is amplified by labour force emigration. According to 2006 data, 27% of the labour force has considered going abroad to work and 6% has a definite plan.[17]

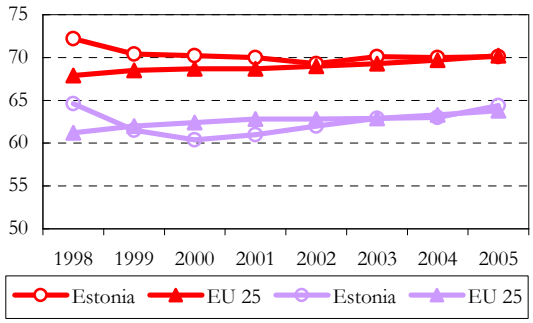
[17] The study "Migration potential of Estonian labour force in 2006", Ministry of Social Affairs and Faktum & Ariko, 2006.

Figure 20. Change of unemployment in Estonia (%)

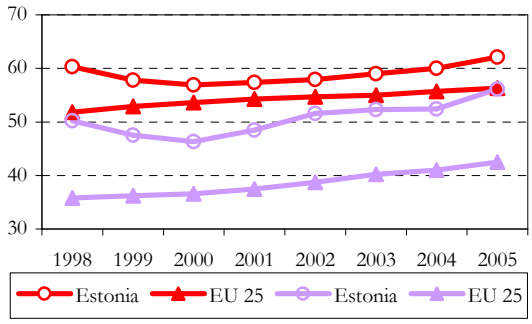
A. Unemployment rate and long-term unemployment rate (age 15–74)



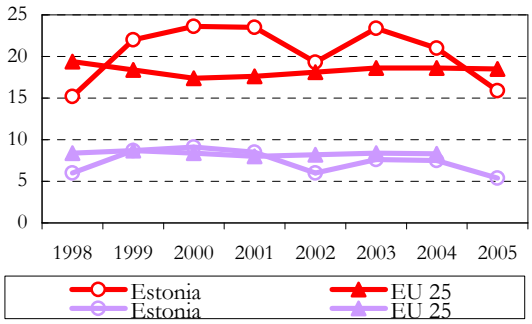
B. Activity rate and employment rate (age 15–64)



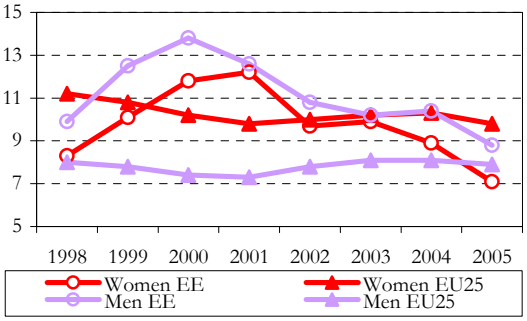
C. Rate of female employment (15-64) and rate of old-age employment (55-64)



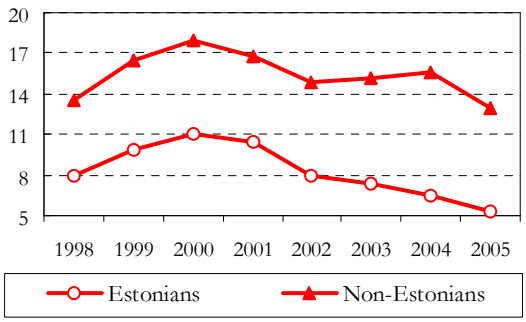
D. Rate of youth unemployment and percentage of unemployed youth in the age group of 15-24



E. Unemployment rate of men and women



F. Unemployment rate of Estonians and non-Estonians



Sources: Estonian Statistical Office, Eurostat

The flexibility of labour relations impacts employment to a significant degree. So far, the flexibility has been hindered in addition to the aforementioned small access to active labour market measures also by the rigidness of labour legislation, in particular concerning the termination of the employment and the high redundancy costs for the employer. In addition, there exist gaps in the legislative acts regulating labour relations, e.g. in the regulation of labour force rental, that can create opportunities for hurting interests of workers and distort competition.

Flexible forms of work are used to a small extent in Estonia. The opportunities for part-time work, telework, and rental work are important to groups such as students, parents and elderly workers. Only 8% of the employed work part-time, while in Europe the figure is 18-20% on average (in 2005). One of the obstacles to expansion of the use of part-time work is its insufficient income, while low

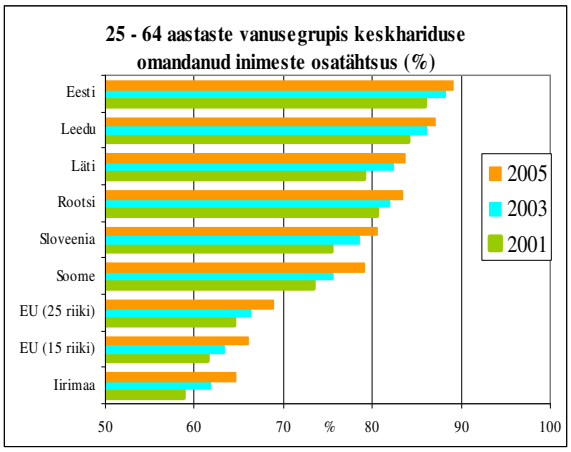
awareness of both employers as well as employees on the use of diverse work forms has also its impact.

2.12. Education

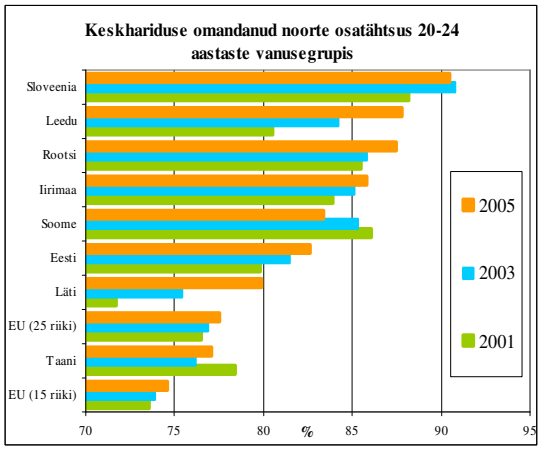
Education in Estonia is highly valued among the society members and its prestige has increased. Proceeding from that, the **average level of education and eruditeness is relatively high,** e.g. it can be characterised by the share of workers with at least secondary education in the age group of 25-64 (see Figure 21A). It is more-so characterized by the high number of people in studying for higher education: when in 1994/95 academic year the total number of students was 25,483 then in 2005/2006 already total of 68,287 students were studying (46% of them on state commissioned student places). In addition, the high level of foreign language skills and relatively high ICT-skills can be pointed out.

Figure 21. Secondary education attainment

A. Share of people with secondary education in the age group of 25-64 (%)



B. Share of youth with secondary education in the age group of 20-24



Source: Eurostat

Due to these aspects, one of the characteristic features of the Estonian society is the relatively high **flexibility** of its members, which allow us to remain competitive in globalising and fast changing economic environment and develop as a society. People, dynamic business sector and state machine are able to adapt with changed situation with a little delay – decision processes are relatively fast as suits for a small country and approval processes are short. Estonians are open primarily to new ideas and technologies.

Same time, the national and societal adaptive capacity and flexibility is at risk, since the social imbalance of the society and the regional imbalance of the economy have risen which in turn impact the access of youth to the opportunities of receiving high-quality education.

The insufficiency of current educational system and its support systems presents itself the most vividly in the educational situation of the age group of 20-24 years (see figure 21B). In this age group, we hold a better position compared to Latvia and Denmark and EU-25 average among the selected countries. However, our share of youth with secondary education is lower than in Lithuania, Finland and Sweden. Considering the future, this is a crucial age group who will need to soon uptake a central role in the conditions of decreasing and aging population.

The rise in the share of youth with primary or lower education increases the share of little competitive people in the labour market. A tendency has emerged that for the group aged 20-24 but also aged 25-29 the share of those young people who have primary or lower education has been

increasing since 1999. The number of non-studying people with primary education has risen among 25-29 year old group from 8,400 in 1999 to 13,200 in 2005.[18]

The major cause of why the share of youth without secondary education has been increasing is early leave from schooling system. The objective of EU for 2010 is that the percentage of early school leavers would not exceed 10%. In 2003 the average fall-out rate in EU was 16.1% and in Estonia 11.8%. One of the reasons for fall-out is the absence of sufficient support measures that would provide students with individual approach. In addition, the effective counselling and awareness measures are missing that would guide the educational and career choices of youth. Uneven quality and access to youth work across sectors and regions does not sufficiently support the readiness of youth to enter labour market.

The development of the knowledge-based society, development of human resource necessary for developing the research and development and entrepreneurship assume much bigger contribution to the field of natural sciences and science and technology. EU has set an objective to increase the number of graduates of those fields at least by 15% by 2010. Though the percentage of the graduates of those fields has significantly increased, it still remains lower than the EU average (in 2004 the EU-25 figure was 23%, in Estonia 16,9%). Our situation can be characterised similarly to majority of other EU Member states by low readiness of young people for making the choices for learning and working in fields of natural sciences and science and technology. The readiness to study those fields must receive a solid foundation already in primary and secondary school levels.

In the conditions structural labour market problems, the existence and use of lifelong learning, incl. continuing education and retraining is essential. The share of adult learners in Estonia has been too low – according to the survey in 2006 only 6,5% of people 25-64 participated in adult education (EU objective by 2010 is 12.5%, the EU-25 level in 2005 was 10,8%). People have low motivation for participating in lifelong learning, insufficient knowledge or awareness or unfavourable opportunities for participating in it.

The labour market needs and structure of higher education curricula have not reached the necessary level of coherence; various flexible learning methods have not been applied enough. The developments in the European higher education space point more and more to the need to focus resources and increase the specialisation of higher education institutions, but international cooperation has developed to a relatively low degree in Estonian higher education. The need for people with doctoral degrees for ensuring the aftergrowth of professors as well as developing the knowledge-intensive economy is not sufficiently covered under current doctoral education.

The recurrent problem across different educational levels and types is that the training quality is uneven and very often insufficient. It is influenced by the lack of high-quality teaching materials and aids and the poor quality of the infrastructure of educational institutions. Poor quality environment reduces motivation for learning and teaching. Scarce means for keeping the work motivation of the teachers cause deficiencies in respect of qualified teachers especially in sciences. The interest of young people primarily young men to study to become a teacher or work as a teacher is low. Good professional specialists have a low motivation to become a teacher in vocational schools.

2.13. Health care

In addition to low birth rate and ageing of population, Estonia loses lots of working age and working capable people due to **poor health status and premature mortality of the population.** Although the average life expectancy of men being born in 2050 promises to be about ten years longer than of men being born currently and women are supposed to live 7 years longer (see Figure 22), reaching these levels needs an essential improvement in health status of the population. The latter is essential

[18] Data from employment survey, Estonian Statistical Office.

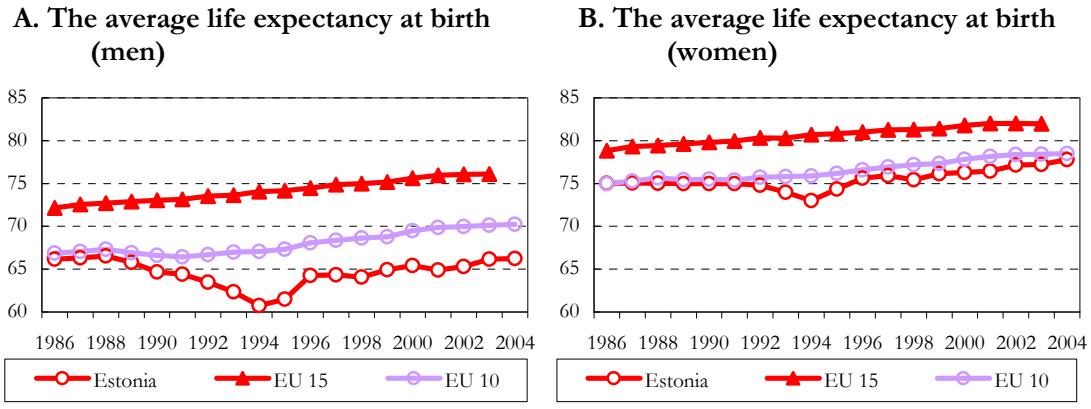
from the standpoint of productiveness of the economy as well as social cohesion since healthy people are more productive and capable.

There have been several positive developments in health sector. The average life expectancy at birth has increased year by year after the slump at the beginning of 1990s, achieving by year 2002 the level of before re-independence time and by 2004 reaching 66 years for men and 78 years for women (see Figure 22). Also other characteristics of the health status of the population, like decreased infant- and maternal mortality, have improved. Occurrence of several serious infectious diseases the prevalence of which has been warningly high (e.g. tuberculosis, B-hepatitis and syphilis) shows continuous falling trend. The awareness of people and possibilities for healthy behaviour have increased and health risks deriving from environment have diminished (food, drinking water and product safety).

Despite the positive changes the average life expectancy at birth in Estonia is still much lower than in other EU member states being also below the level of the new Member States (see Figure 22). The difference between the average life expectancy of women and men is still big (nearly 12 years). The main reason for the low average life expectancy of men is premature mortality due to cardiovascular diseases, tumours and external causes (e.g. traffic and domestic accidents, suicides).

More than half of the disease burden of the Estonian population is borne by the population in productive age (aged 20-64). For example among population aged 0-65 years mortality of cardiovascular diseases is 3,5 times and mortality due to external causes is 4,7 times higher than in European Union old member states on average. In 2005 among inactive persons aged 25-49 (altogether 64 700 persons) 24% of cases the reason for inactivity was illness or injury. Thereby illness or injury is the reason for inactivity for 20% of inactive men and 9% of inactive women aged 15-69.[19]

Figure 22. The average life expectancy at birth



Source: WHO-Health for all database

One of the reasons for the poor health status of the population is that the working environment as well as living environment as a whole does not support health, also the healthy lifestyle is not valued or acknowledged enough. Main health loss of Estonian people is caused by elevated risk behaviour: over consumption of alcohol, smoking habits and little physical activity. The reasons for little physical activity are economic as well as social. Although there are about 2,500 sports clubs and organisations and 10-12% of Estonians belong to sports clubs, the problem is still the shortage of sporting places and insufficient availability of family sports opportunities (specially in rural areas), also the costliness of hobby sport activities and poor economic situation of sports clubs.

Thereby two disturbing tendencies have emerged with regard to the health status and risk behaviour of population. First, widening social and economical inequality increases risk behaviour in those social groups that are already more vulnerable than others e.g. the unemployed and people with lower income and education. Secondly, the risk behaviour of children and young people is increasing,

[19] Estonian Statistical Office.

mainly smoking and consumption of drugs and alcohol. This damages the development of children as well as their adult health and has negative impact on their prospects in education and on labour market. Mental disorders are the main reason for permanent incapability to work among young people aged 16-29. The number of suicides has decreased to 24-25 cases per 100 000 population per year, but is still twice higher than the average in EU.

Major environmental factors causing illness in Estonia include ambient and indoors air, drinking water, food and chemicals. Also the ageing and substandard dwelling fund (humidity, mould, unhealthy construction materials, poor heat resistance, poor micro climate, outdated water and sewerage pipelines, dangerous electricity and gas installations, fire-, radon- and collapsing hazard) feature danger to health. Similar problems are extensive also in many institutions (social care institutions, schools) where people stay for a longer time.

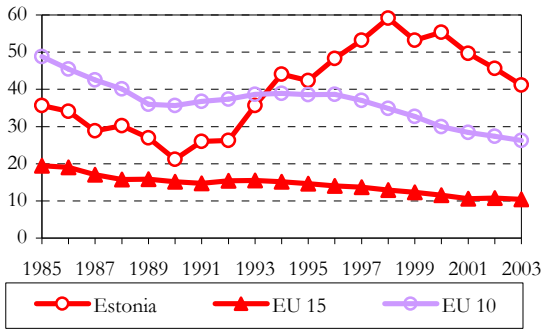
The number of fatal accidents at work has significantly decreased over the last decade. When in 1995 there were 9,3 fatal accidents per 100 000 workers, in 2005 the respective figure was 3,9. Yet, there continue to be more of such accidents in Estonia than in EU Member States on average (2,5 incidents per 100,000 workers in 2004). In addition to the risk factors emerging from the working environment, the spread of sedentary work and work-related stress are causing health problems. The main reason for the high rate of work accidents and the health problems that arise from working environment is low level of awareness on how to mitigate the risks. The aspect that the framework influencing the working environment does not currently motivate employers to invest into it has its own share as well.

Global warming, constant population growth and widening economic inequality have generated a significant risk of extensive crisis and emergency situations in the world. Insufficient readiness of countries, including Estonia, for natural catastrophes, epidemic of infectious diseases, terrorism or other catastrophes of human origin are becoming one of the biggest problems in environmental health field and feature a danger for human health and sustainable economic growth. For example, Estonia currently lacks both an electronic notification system for infectious diseases as well as the system of reference laboratories. Absence of laboratories complying with strict security requirements rules out providing diagnosis of several highly hazardous infectious diseases.

With regard to the infectious diseases the main problem in Estonia is rapid spread of HIV infection and more frequent cases of AIDS, which is very likely to become one of major socio-economic problems and main reason for loss of labour in Estonia in a few years time. There was an outbreak of HIV infection in 2001 when 1474 new cases were registered. Since then the number of new cases has decreased year by year. By the end of 2005 there were altogether 5063 HIV-infected persons and 100 persons suffering from AIDS. Despite downtrend, cases of tuberculosis, syphilis and hepatitis B and C are still far more frequent in Estonia than in other EU countries (incidence of tuberculosis and hepatitis B is three times and incidence of syphilis is five times higher than in EU) (see also Figure 23).

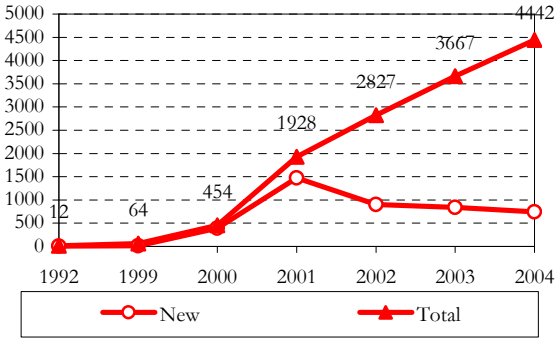
Figure 23. The spread of infectious diseases

A. First incidences of tuberculosis



Source: WHO-Health for all database

B. HIV incidences



Source: Ministry of Social Affairs

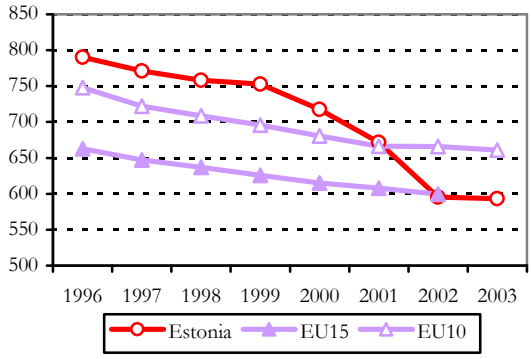
Existing public health and health care system currently are not effective enough to manage the environment related health risks, to prevent illness and manage the health problems. The main emphasis of health protection is still on supervision instead of risk assessment and management. Although several state coordinated strategies have been developed for health promotion and disease prevention, the implementation on regional level where it is proved to be most effective has been weak due to the stringency of human as well as financial resources and is very different by regions. One of the bottlenecks is the lack of high-level public health basic training and well-considered continuing education system that could ensure a constant flow and development of public health specialists and could enable to expand the knowledge of other field specialists on public health.

A well functioning system for financing the health care has been set up. Solidarity based social insurance is securing financial protection and availability of wide range of health care services to the vast majority of the population (94% of the population covered by insurance). However, considering the demographic situation and relative decrease of working age population, the financing of health care in longer perspective is not sustainable as it mainly relies on direct taxation of workforce (2/3 of the financing is coming from a payroll tax paid by the employers on behalf of the employees).

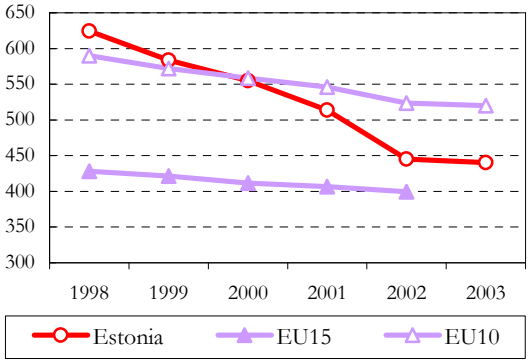
To ensure more efficient use of resources several reforms have been introduced in health care organization. On primary care level a system of family practitioners has been introduced covering whole country. The number of family doctor visits has doubled and number of referrals to hospitals and hospitalisations has diminished. Also the number of hospitals and hospital beds has been cut down considerably and the efficiency indicators of acute care hospitals have reached the average levels of EU (figure 24). At the same time average bed occupancy rate of acute care hospitals is still considerably below EU levels. The hospital network thus needs further restructuring. The existing infrastructure needs optimisation and modernization as it is not meeting the changed functional needs and the maintenance of an abnormal and depreciated infrastructure is too costly.

Figure 24. Restructuring of hospital network

A. Number of hospital beds per 100 000 residents in Estonia and EU



B. Number of acute care hospital beds per residents in Estonia and EU



Source: WHO-Health for all database

In view of aging population and increasing spread of chronic illnesses the availability of nursing care and rehabilitation is not sufficient. The availability of nursing care is limited considering the inpatient care as well as home and day nursing services. By the end of 2004 there were 51 hospitals and 7850 hospital beds in Estonia, 18 of them were nursing hospitals. The number of nursing care beds was 1089, which is covering about half of the 2100 nursing care beds needed.

Although at primary care level a system of family practitioners has been set up, other primary care services have not been developing in the same pace. The fragmentation of different services and service providers determines inefficient use of resources and does not allow for continuity of care. There are also regional differences in availability of health services concerning the relevant infrastructure as well as personnel.

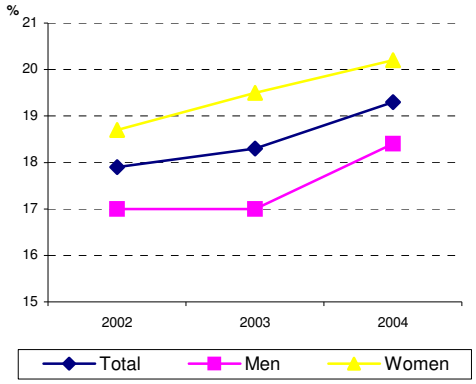
An essential aspect from the standpoint of health system sustainability is also the existence of sufficient number of qualified and motivated health care professionals. Estonian health care system is lacking especially nursing field employees, careers and doctors-specialists of certain fields. Surveys have shown that poor working conditions are one of the main factors besides low wages influencing health care employees to go to work abroad.

2.14. Social protection

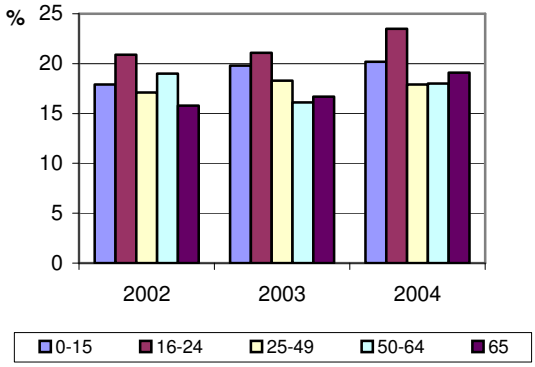
The general low level of incomes and the employment problems among the different society groups due to low productivity of economy puts part of society to poverty risk (see Figure 25). Although the number of people living in relative poverty risk has diminished, it was in 2004 still approximately 19% of population – compared to 16% in the EU. Long-term unemployed people and people averted from labour market, student fallen out of school, children with special needs, disabled people, people with dwelling problems and victims of violence are mainly in the risk of poverty and exclusion. As a result, the **social inequality** has risen in Estonia and this has partly (but not only) been caused by big developmental differences among regions.

Figure 25. Relative poverty risk rate (%)

A. Relative poverty risk rate by gender



B. Relative poverty risk rate by age



Source: Estonian Statistical Office, Eurostat

The result of social inequality is that society's social cohesion and social inclusion of the aforementioned societal groups is weak. In promoting the social inclusion the key factor is inclusion of all parties (state, local governments, non-profit organisations, private sector, social partners). Here an active participation of third sector in increasing the inclusion in policy development as well as executing projects directed at target groups.

The central problem of Estonian social protection system is the absence of linkages between labour market and welfare services. The existing services and also the provision of social support is not always individual-oriented and often the high social welfare and insurance compensations do not motivate people to return to labour market. The volume of provided social services is often insufficient and not in correspondence to the real needs of people. For example, the waiting line of technical aids was in the first half of 2006 estimatedly more than 4,5 mln kroons, there are long waiting lines for child care services or kindergartens due to the inability of the region to cover the real needs of people. In addition, the low efficiency of other public services can have a negative impact on the performance of welfare services – e.g. the low access of disabled children and youth to educational services can hinder the provision of suitable welfare and labour market measures to them and there-by create a burden for labour market entry.

Due to gradual transfer of social services provision arrangement to local governments the level of service provision and availability is uneven in Estonia, depending on the capability of the local

government and priorities in planning the budget. At the same time the customers are not aware of the offered services and do not know how to seek preventive aid. The problem is more serious in bigger cities where the information about people needing help often does not reach the social workers.

Housing reform in Estonia has been relatively more radical compared to other Eastern European countries and this has also determined the acuteness of involved social problems. Individuals and families with subsistence hardships often lack the opportunities for acquiring their own residential space, improving the living conditions or adjusting the residential space to their needs. The risk groups are large families, disabled people, elderly people, children that have reached adulthood without parental care, individuals freed from holding institutions, homeless people, etc. The local municipalities provide an important measure for improving their living conditions by providing quality social residential spaces (i.e. subsidized municipal or private rental space). In 2006, the local municipalities owned 2,8% of the housing stock, of which only a share was used as social residential space. The reserve of municipal residential space is practically non-existing in all local municipalities –58% of them would require more municipal and social residential spaces that they can currently provide (the total need being about 6 600 residential spaces).

Another problem is that the Estonian housing stock has not been built and adjusted to enable access and use for disabled people and that there is a deficiency in terms of good guideline materials for executing such reconstruction works.

To support the families with children and to coordinate better the working and family life, parental benefit system has been implemented during last years. To diminish the poverty of children and improve the economic situation of families with children, some of the family benefits types have been increased and added, also the circle of receivers has been expanded and tax incentives made. Still the family benefits are often not sufficient to ensure the minimum coping of families with children. Since the end of 1990s, the percentage of households living below the poverty line has decreased remaining in 2004 and 2005 at the level of 14.8% and 12.4% respectively. Similarly, the share of children living below the poverty line has decreased, remaining at the level of 20.3% in 2004 and 16.8% in 2005. Nevertheless, many families raise their children in serious economic difficulties hence they cannot take care of their children enough. For example 9.6% of children in 2004 lived in families where both parents were unemployed.

In Estonia, there ere 4,226 children under substitutive care at the end of 2005, of which 1,567 children were on state welfare service and 116 with parental petition. Though the direction in renovating the children's social welfare institutions has been to develop the family-type children's homes during last years still an essential problems to be pointed out here is the unsatisfactory situation of many children's homes and non-conformance to the principles of modern welfare services. There are no criteria to evaluate the quality of child protection work and the number of child protection officials is insufficient as well as their professional preparation.

There are 23 special care welfare institutions in Estonia of which 16 belong to the state. The institutions are specialised either on one specific or several customer groups. In case of some institutions it has lead to the situation where former specialisation of the institution does not match the trends and principles of the welfare services anymore. Development of current social welfare institutions is essentially limited with their location away from big regional centres, which sets obstacles to availability of public services (e.g. medical aid, transport, culture, etc) as well as finding qualified employees. Ageing and non-conformance with health protection requirements as well as modern welfare service principles (e.g. insurance of family type dwelling unit for up to eight people, maintenance of people's privacy) of existing buildings (mainly the manor houses and soviet time buildings) present a big problem.

Historical-culturally developed gender inequality has become an obstacle in full implementation of the development potential of the society and it increases social problems. Mostly is inequality caused by traditional gender roles and stereotypic notions that the formed preconditions and skills are natural not acquired. The gender prejudice in the environment favours survival of discriminating

attitudes and limits women's participation in socio-economic and political life and men's participation in family life, having a negative impact on demographics. The main problems related to gender inequality are: high gender pay gap between the salaries of men and women, unification of work and family life, small participation of women in management levels, fighting with stereotypical gender roles and small administrative capacity to implement both positive special measures for reducing inequality as well as integrating the gender aspect into all activities.

2.15. Administrative capacity

Considerable achievements have been made in the area of administrative capacity in Estonia with the reforms of last 15 years. As a result of the reforms a functioning administrative organisation and professional civil service have emerged. Projects connected with e-state have received much attention – their aim has been to increase the performance of state governing and move the state closer to people while also improving the availability and quality of public services. At the same time, the **administrative capacity** in Estonia still **needs further development**. The capacity of central government is better than the one of local municipalities and NGOs (incl. social partners); a trend amplified by unclarity in the objectives and implementation plans of the administrative reform.

One of the permanent problems regarding the administrative capacity is insufficient cooperation between different institutions and insufficient attention to improving the rendering of services.

At each level of policy-making, the quality of policy design and efficiency of policy implementation can be significantly improved. There are deficiencies particularly big with respect to strategic planning. Currently there are more than 100 valid strategic documents approved by the Government of the Republic or Riigikogu. These documents are often not in correspondence with each other, not covered with financial resources and as a rule not built on sectoral analysis and thorough discussions with the related parties. This points to fragmentation of strategic planning and also to insufficient planning abilities combined with low knowledge-basedness of the process. The structure of the ministries and other state and local government institutions or NGOs (incl. social partners) does not support systematic, long-term strategic development of policies and the network between ministries and sectoral experts is not developed in most of the areas. Same time, the capacity of strategic planning and analysis outside the administration is still rather low in several nationally important sectors or fields.

The state institutions have started to implement result-oriented management principles, but the progress of implementation has been slow and uneven across the institutions. Neither the purposefulness of institutional activity nor the links to budgeting, organisational structuring and management accounting nor the monitoring and reporting of results are guaranteed. All this is reflected in turn in the inadequacy of the motivational systems. There is additionally room for development for improving the system of recruiting, evaluation and development of civil servants, also of the optimisation of structures and personnel of state institutions.

Currently the central development projects and comparative surveys necessary for increasing the efficiency of policies have not been dealt with much. In addition, adequate and systematic training of knowledge and skills does not sufficiently support essential development of the public administration and the legislative amendments. The reasons behind this have been pointed out as follows: shortage of funds, time shortage, lack of institutional strategic objectives or indistinctness and little awareness of managers about the influence of training for achieving the objectives of the institution, governing area and the state.

In Estonia, there is one-level local municipality system in place that consists of 227 municipal units (incl. towns). There is no regional level of government, 15 countywide unions/associations of municipalities have been formed instead and membership in these is voluntary to a municipality. 15 county governments in the governing area of Ministry of the Interior and many regional subunits under various state institutions execute the state authority on the regional level. In addition to the

regional unions, there also are 2 nation-wide unions of municipalities. Coordination between the unions, municipalities, state institutions and county governments has improved in the last few years and some good practices have emerged, but systematic coordination mechanism are you to be developed and the practices do not fully function. At county level the strategic planning capacity that requires cooperation of municipalities is weak and there are not enough resources for purposeful implementation of strategic activities.

Although there are almost 24,000 non-profit organisations and foundations operating in Estonia (including more than 11,000 housing and garage associations) and the non-profit sector is becoming more organised, there are not enough strong roof organisations in all sectors that would be the main partners for the public sector in policy design and planning of strategic developments. At regional and local level the non-profit organisations are often not officially organised, while it is namely on these levels that a remarkable number of non-profit organisations operate and offer important cooperation for municipalities in the provision of public services. For enhancing administrative capacity, it is important that NGOs (incl. social partners) become strong partners for the public sector, among else for enabling a better delegation of public services.

In 2005, the joint commission of the development concept of Estonian civil society and the State Chancellery led designing of the good practice of involvement – the set of principles based on which the civil society organisations, interest groups and public sector cooperate. The involvement practice has been very varying in the central government and local municipalities' institutions to date. The institutions have developed differing involvement habits and rules; often the non-governmental organisations are not engaged to become involved at all. As a general rule, there are in state institutions no officials appointed for dealing with civil society issues. There are no contact persons for civil society organisations, for example. The role of county governments is unclear in the development of civil society. The attitudes towards supporting citizen initiatives vary a lot at the local level.

There is **too much red tape** for companies and citizens involved in the use of public services. The legal environment influencing the competitiveness of Estonian companies has been formed during a short period and has been influenced by different legal systems, primarily from EU law. During the transposition of EU acquis and development of Estonian legislative environment, not much attention was paid to the analysis of legislative impacts and assessment of the administrative burden due to limited human and time resources. There has been a requirement to conduct an assessment of legislative impacts in the Estonian legislative process since 1999, but its implementation could be more systematic and consistent. The unified criteria for determining the necessity of conducting legislative impact assessment are missing. Often the impact assessment studies have not been planned by the ministries at a sufficiently early phase of the legislative process and same time, the awareness of civil servants of the nature and opportunities of impact assessment is small and uneven.

2.16. SWOT-analysis

On the basis of most essential aspects presented in the previous analysis of policy areas and external trends, it is possible to analyse coherently the strengths, weaknesses, possibilities and threats in the area of socio-economic development (see Table 2). The analysis has been carried out based on the following methodological principles:

- threats and possibilities, strengths and weaknesses have been determined generally considering the time perspective until 2015 and the foreseeable potential developments for that time period – for external environment factors, however, occasionally an even longer time-horizon has been considered to allow the elaboration of as much future-oriented strategy as possible;
- the EU (i.e. other Member States) have been mostly used as a comparative background to evaluate Estonian strengths and weaknesses if data or information on their general (or sometimes also average) level has been available. If that has been the case, the data has also been presented in the previous analysis;

- the strengths and weaknesses are determined for the internal environment, opportunities and threats for the external environment. In this analysis, internal environment contains the development state aspects that are only domestic in nature and can directly be influenced by public policy-making. Aspects that depend on the developments outside Estonia and the public policy-making are categorized under the external environment – i.e. they cannot be influenced towards the desired direction by the national policy of Estonia alone.

Table 2

Strengths, weaknesses, opportunities and threats of Estonian socio-economic development – SWOT - table

Strengths	Weaknesses
○ A stable macroeconomic framework that supports the development of enterprises. ○ Favourable geographic position for integration with the Baltic Sea and especially with the Nordic countries. ○ The general education level of people is high. ○ A well-developed telecommunication network and state-of-the-art ICT solutions (especially in the public sector). ○ Good territorial coverage of roads. ○ Own energy resource - oil shale. ○ Many natural eco-systems in a natural or nearly natural state; a rich preserved cultural heritage.	○ Low level of R&D and innovation; the relevant infrastructure and human capital is insufficient; little cooperation between enterprises and R&D institutions: lack of R&D critical mass. ○ Low productivity, weak international market position and low survival rate of enterprises. ○ Structural problems in the labour market. and labour shortages ○ The education system and its support systems are insufficiently flexible and their quality is not high enough ○ Regional imbalance of development. ○ Relatively large environmental burden of economic activity: outdated and insufficient environmental infrastructure, low efficiency in the energy sector ○ Social inequality, risk of digital gap ○ Diminishing and aging population: further pressure on the labour shortages ○ Poor health condition of the population and early mortality. ○ Deficiencies in the quality and capacity of transport networks; in the development of public transport. ○ Low level of entrepreneurial spirit of people ○ Low administrative capacity
Opportunities	**Threats**
○ Utilisation of new technologies and innovation: development of new products, services and technologies and application of new business models. ○ Increase in the volume and quality of foreign direct investments. ○ Increased opportunities for business, learning, trade exchange, exchange of experience, knowledge and labour in the enlarged EU and globalising world. ○ Intensification of international cooperation. ○ Environmental sustainability as a growing factor of competitiveness. ○ Liberalisation of foreign trade in the world. ○ Adoption of the common EU money − the euro. ○ Growth of tourism in the world.	○ Diminishing low-cost-advantage ○ "Brain drain" – emigration of top specialists and skilled labour due to better working and living conditions abroad. ○ Dependence of the small open economy on the economic cycles of its economic partners. ○ Emergence and fast spread of possible crisis situations: epidemics, terrorism, natural catastrophes, and other. ○ Rise of protectionism and unfair competition in external markets. ○ Emergence of global energy deficit. ○ Inflationary pressures.

3. STRATEGY FOR 2007-2013

3.1. Conclusions of the analysis: focuses of state activity in 2007-2013

It is possible to derive the starting point for directing Estonian socio-economic development and planning the necessary activities for 2007-2013 based on the consideration of the interconnections and relative importance of the presented strengths, weaknesses, opportunities and threats (SWOT-analysis in Chapter 2.16 and Table 2).

Determination of the starting point is based on and understanding that attaching importance and drafting actions to cure only the short-term or current development problems is not an expedient way for directing national development in the longer term. The biggest impact can be achieved when development is planned strategically, i.e. for longer term, forward-looking and taking thoroughly into account the possible mutual linkages and impacts of activities.

Estonia has a relatively favourable moment of time and suitable external environment to initiate the next development leap in the years of 2007-2013. Estonia can make use of the identified opportunities when we manage to develop our international competitive advantages by developing the prerequisite resources for it: our people, the knowledge-based economy and our living environment. To do so, Estonia needs to strongly act on surpassing the weaknesses identified – the key structural and longer-term problems of development. Thus, the central approach of the NSRF has to be: **to overcome weaknesses for utilizing the opportunities**. In this, we can act upon our, developing those upon need. Dealing with the weaknesses also enables us to efficiently prevent the identified risks.

Following the central approach of the strategy and linking the aspects of the SWOT-table, the following focuses for state activity emerge: developing the human resources, developing the knowledge-based economy, developing the basic infrastructure, increasing effectiveness of environmental protection and developing the energy sector, enhancing local developing and increasing national administrative capacity.

Developing the human resources

To ensure the subsistence and development opportunities for people and there-by the preservation of national competitiveness in the fast-changing economic environment, the existence of a flexible educational system and, in particular, opportunities for life-long learning are important. Quality of the acquired education is also essential. The labour market readiness of people depends on those factors, as does the availability of work force required for economic development to occur. The readiness can additionally be increased by the labour market services that enable to direct people who have lost their jobs or looking for jobs to the fields of activity with labour force need. Another essential prerequisite for labour market readiness is also the health status of people, which determines the activeness people's participation in the social and economic life. Analysis of the current situation reveals that there are big deficiencies in those areas that could be overcome by integral approaching of the mentioned aspects of human development. In particular, the most pertinent problem of human resources has become the shortage of labour force that needs to be thoroughly addressed given the long-term demographic perspectives in Estonia that contribute to further aggravating labour shortages in the future.

More specifically, it is necessary to focus the efforts into the following activities, for the purpose of addressing both the issues of long-term labour supply (shortage) as well as people's substinence and development opportunities:

- increasing the quality and flexibility of studies in Estonian, creating equal opportunities for skill- and interest-based life-long learning and improving the quality and availability of youth

work – by developing both the relevant underlying infrastructure as well as the studies and training itself;
- preventing illness, favouring healthy choices and life styles; hindering the spread of infectious diseases; reducing environment-related health risks; and ensuring the availability of health care services;
- increasing the supply of qualified labour force and improving the quality of work life;
- developing the welfare services, increasing social inclusion and promoting gender equality;
- improving the efficiency of integration of non-Estonians.

Considering the conditions of diminishing and ageing of the Estonian population, it is therefore especially important to value every person. Unfortunately, the starting point of all people in Estonia is not equal and the society is characterised by social inequality and as its result - little social cohesion. Therefore, the specific needs of risk groups, socially discouraged people and people with special needs have to be considered and equal opportunities for entering the labour market and participation in the social life should be created for them. Same time, an opportunity to participate is not enough – the people also have to have the necessary skills and willingness and ability to participate. Advancing the situation education, employment, social protection and health areas and efficient action in them are the best means for diminishing the social and economic inequality. This is the basis for long-term sustainable development, especially in the face of Estonia's diminishing and ageing population that results in the reduction of the available labour. Development of the human resources creates prerequisites for broad increase of well-being, including the increase of social balance.

We have in general a good starting point for solving those above-mentioned problems, because Estonian people have a good general education level and open and flexible to changes. Educated and active people are more willing and able to use the opportunities for communication and exchange of experience and knowledge that open for them in the enlarged European Union and world. These opportunities increase their development opportunities even further and bring benefits to Estonia in a broader sense.

Developing the knowledge-based economy

The low costs advantage that until now has formed the basis for Estonia's economic success is starting to vanish quite fast in the medium-long-term perspective. Therefore, in order to keep and improve the national competitiveness, a proactive, well-targeted and versatile support to its enterprises is needed in Estonia in addition to maintaining the liberal economic environment that has served as the source of competitiveness so far.[20] Implementation of the respective actions must bring about structural changes in the economy − the aim is to reduce the share of the "traditional" actions and sectors by increasing the share of knowledge- and skills-intensive actions and sectors. Its prerequisite is the direction of extensive investments into renewal of technologies, product development and marketing. This must be accompanied by support for development of relevant skills and knowledge for the intake of new management principles and strategies. Those changes will presume from companies the emergence and improvement of skills and capacities for a more meaningful and long term collaboration, among others, with R&D and higher education institutions to improve also the links of the latter with the business sector. All this will bring about rises in productivity and added-value creation, which will enable the country to develop the more sustainable competitive advantages and there-by forestall the risks arising from the decreasing traditional low costs advantage. In the conditions of the ageing population and labour force shortages, growing international competition and expanding export opportunities, the growth productivity and value-added is a key factor for the development of enterprises and the economy as a whole. Therefore, it is necessary for Estonia to take the course towards developing the knowledge-based economy.

RTDI and education are among the main levers besides the classical economic policy measures that allows and should direct the changes in the economy's structure in becoming a knowledge-based

[20] The term 'enterprise' is used in the current text as covering both commercial organisations and self-employed entrepreneurs.

one, i.e. greater creation of value-added. Increased investment into the development of the human resource and RTDI relevant from the perspective of the future needs of economic cluster opens up new possibilities for entering faster growing economic sectors with the suitable technological level and greater profitability. From the perspective of a small country with limited resources, the issues of critical mass and clustering are of major importance to guarantee the sustainability of changes to be brought along in the structure of the local economy and society. All this would open up new opportunities for the emergence of the industry oriented to high-technological exporting. Focus on the improvement of the quality of RTDI and knowledge base in general are utterly important for the countries in such a phase of development as they raise among others, the quality of human resources and skill base for the emergence of new future high-technology industries and sectors as well as for restructuring the traditional ones.

Despite Estonia's general success in raising the efficiency of its R&D and innovation system, the hitherto R&D and innovation activity has been small. The investments in R&D and innovation have been insufficient; as a consequence, large part of its relevant infrastructure is mostly outdated today. .This has inhibited increase in the quality and effectiveness of locally produced R&D as well as general R&D and innovation capacity. In addition the country is lagging behind in the output of scientists, academics, engineers and other high quality specialists, especially if we consider the additional pressure deriving from the looming wave of age-related retirements. Neither is such an R&D and innovation system attractive for business investments; neither does it constitute an environment that would attract and maintain talented specialists in Estonia. Therefore different but mutually balanced measures (development of both skills and infrastructure, also international cooperation, clustering to secure critical mass in selected priority areas) must be applied to provide impetus for the growth of R&D and innovation capacity of the business sector as well as the society as a whole.

Considering the technological advancements that take place in the world and the local limited resources, there is a need to focus the attention to certain groups of technologies that are knowledge-intensive, fast developing and enable new applications and the growth of productivity in various other spheres of life – and in which there is already some competitive basis in Estonia. A critical point here is to create conditions for the application of those technologies not only in few high technology sectors but, most importantly, in traditional business sectors which today are mostly suffering from outdated technologies and lack of relevant skills and know-how to improve their competitiveness in their export markets. These technologies are information and communication technology, biotechnology and nanotechnology. Estonia needs to assure the growth of entrepreneurial activity and R&D and innovation capacity of existing companies in which can benefit from the application of those aforementioned technologies in economic sectors such as, first and foremost energy, transport and other spheres of life (e.g. healthcare, environmental protection, etc.).

Despite the generally high average educational level, the knowledge, skills and attitudes of many people fail to meet the current and future needs of the labour market – there exist labour market shortages. Several sectors of the economy are experiencing a shortage of skilled labour, but also of low-skilled labour and managers. Active implementation of training schemes in the enterprise sector would allow the country to better utilize the potential of the existing human resource and get good new workers by way of offering people relevant knowledge, skills and experience. This also helps to secure the raise in the survival rate of enterprises.

Increase in existing enterprises' productivity and competitiveness has been further inhibited by their low RTDI and innovation capacity. This can be explained by the structure of the Estonian economy, where a large number of enterprises operate in niches with low added value. This is why their capability to develop new high value-added products, technologies and services by themselves is relatively low. This is also evidenced by Estonian enterprises' investments in R&D and innovation, which appear to be very low in international comparison, but also by little cooperation between the Estonian enterprises and R&D and higher education institutions. This all clearly points to the need to enhance Estonian enterprises' capacity for renewal and growth by providing impetus and support for their restructuring as to face the challenges provided by increased competition in their export markets.

Estonia's EU membership and continuing globalisation of the world economy provide opportunities for increasing foreign direct investments and the related inflow of knowledge and new technologies - and there-by for productivity growth and entrepreneurial development. Due to the gradual disappearance of the low-cost advantage, the ability to seize these opportunities depends on Estonia's ability to create an attractive environment for foreign direct investment. The important components of the latter are a sufficient number of highly qualified specialists, a competitive R&D and innovation infrastructure, innovative enterprises and the public sector. Taking advantage of our favourable geographical position to some clusters, Estonia associates great prospects with increasing its active participation in the R&D and innovation cooperation within the Baltic and Nordic cluster (includes North-Western Russia).

An important potential for development and growth of enterprises is also hidden in the development of people's entrepreneurial and innovation knowledge and skills. It is important that people would notice and know how to utilize new ideas for business success – that they could formulate and realise them as a business plan. The result of improved entrepreneurial awareness would be higher entrepreneurial activity and more viable new enterprises.

Access to starting capital plays an important part for developing entrepreneurial activity, productivity, innovation and growth capacity of enterprises. Since private markets do not offer enough loan capital to starting entrepreneurs who often do not have sufficient collaterals, financial history and well-formulated business plan, the state can stimulate active creation of new innovative enterprises by providing the respective instruments. The state's involvement in the provision of financial instruments is especially important for very small enterprises, because micro-credit offering is not economically efficient for financial institutions due to unproportionally big transaction costs. Also, for the innovative and fast-growing enterprises does the state involvement with right instruments bring about a significant increase in the productivity and growth ability.

Owing to globalisation and the liberalisation of foreign trade, the opportunities for Estonian enterprises to market their goods and services will also expand. In view of the relatively small size of Estonia's internal market, internationalisation is a crucially important success factor. Assuming that the productivity, innovation and internationalisation of enterprises increase as well, it will be possible for them to improve their currently weak international market position in the future. This requires purposeful and systematic support to internationalisation of enterprises besides the other measures described above.

In addition to other aspects, EU membership and globalisation will expand the opportunities for improving skills and knowledge of people. But on the other hand, greater mobility involves an inherent danger of brain drain. To prevent the outflow of qualified labour, it will be necessary to guarantee the availability and growth of internationally competitive well-paid jobs both in research and education as well as in the private and public sector. An additional opportunity is the creation and implementation of a set of active measures in the field of R&D and innovation, which would facilitate the "inflow of brains" (e.g., grants paid upon returning).

EU enlargement has also increased an interest to travel to new Member States in other European countries – and tourism is on the rise in the world at-large. This creates specific development opportunities for the Estonian tourism sector, considering especially our natural and cultural heritage and the potential of their utilization for developing internationally unique tourism products and services.

Developing basic infrastructure

Despite the geographical position and small territory of Estonia, the domestic and international time-space distances are remarkably long nevertheless. Development of domestic as well as international connection opportunities and increasing access to them enables to create prerequisites for continuation of fast economic growth because it increases the efficiency of enterprises, the working and mobility opportunities of people, etc. On the other hand, it relatedly enables to create direct

preconditions for increasing regional and social balance of economic growth. Accessibility and quality of connections are important conditions for increasing the volume of direct external investments, especially in places outside Tallinn. It also creates the basis for bigger use of business, learning and communication opportunities resulting from EU membership and globalisation.

Although the road network covering Estonia is generally dense and also the conditions for air and sea traffic (especially with close neighbouring countries) exist, it is necessary to improve for all transportation modes and their interoperability the quality, safety and penetrability of transportation networks in accordance with the needs of their users. In addition, it is necessary to develop public transportation and light traffic that could help to increase accessibility remarkably and at the same time efficiently as an alternative. Those systems are poorly developed and especially in rural areas. Due to the small attractiveness the share of public transport and light traffic in transportation is shrinking fast and there-by the trend towards general motorisation is amplified.

The use of resources for the development of the transport sector must accordingly be focused primarily on the development of transport infrastructure of strategic importance and improvement of regional connections, incl. improvement of various connections on the roads belonging to the TEN-T network, and the development of high-capacity and environmentally friendly public transport.

Creation of conditions for coping in the modern entrepreneurship and human environment means also improving access to information besides improving the geographic accessibility.

Spread and use of Internet are on a relatively good level in Estonia, but dangers related to digital gap actually exist also in Estonia. The prerequisite for participation in the information society is accessibility to Internet and the services employing information and communication technological (ICT) opportunities as well as the awareness, skills and motivation of people to use those services. In these respects, integral developmental activities have to be pursued, paying special attention to the target groups whose ICT use is limited by little consideration given to their specific needs and expectations in offering e-services (the regional, cultural and social peculiarities; people with special needs).

Increasing effectiveness of environmental protection and developing the energy sector

Environment protection meant as harmonic and balanced administration of natural resources and environment in the interests of the Estonian society and local communities, should ensure the sustainable use of environment and there-by the ecological balance, which is a central precondition for the sustainability of the society.

Attaching high priority to environmental protection activities in Estonia is warranted mainly due to the weaknesses related to the insufficiency and ageing of environmental infrastructure (water supply, waste water treatment, landfills, external air protection equipment, etc); the high environmental impact of the oil shale industry; relatively big energy consumption; the existence of industrial and military residual waste sites and damaged industrial landscape. Consequently, regarding the low number of population of Estonia and the low productivity level, the negative impact on natural environment in some areas is too big. It generates dangers to people's health and/or worsens the conditions for entrepreneurial activity in certain.

Hence, the main challenge for environmental protection in Estonia is to reduce the environmental load of economic activity (inc. the contamination from economic activity) and to ensure the health safety, including the prevention of environmental emergencies and advancing the capacity to react to those emergencies.

The high energy intensity of Estonian GDP and the relatively low efficiency of utilization of primary energy show great potential for making the use of energy more efficient. This would enable to prevent the potential energy deficiency in the future and there-by give to the state long-term international competition and security advantages. Therefore, more governmental attention than

hitherto should be paid to curbing the growth of energy consumption and raising the efficiency and energy savings of final consumers, especially in the housing stock as there the energy saving potential is the highest. Since the support schemes exist development of renewable energy and more efficient electricity production and the ability to direct via the investment obligation funding into the development of energy infrastructure through national coordination of energy prices, the limited resources can be targeted to the supporting and accelerating activities in the sector.

Besides solving the above problems, it is necessary to guarantee the preservation of the areas that are currently in good state of the environment, i.e. maintain our current strength – the self-recovering ability of natural and semi natural landscapes and biological populations (inc. the biological diversity); the generally clean natural environment; and the landscapes preserved as cultural heritage.

Enhancing local development

The integrated and balanced development of different regions in Estonia directly allows increasing the regional balance of economic development. Sustainable development is dependent on the ability to involve as much local development potential and resources as possible in the economic development and to ensure a decent living environment in each region. This raises the attractiveness of regions in the eyes of visitors and investors but also helps to preserve the viability of the Estonian cultural space as a whole and strengthen social cohesion in the society.

Regional unbalance has become a critical weakness from the standpoint of the sustainability of Estonia's development. Since the contribution of different regions to national economic growth is disproportional, a big part of national resources are under-utilised and the social problems amplified. This entails a risk to lose the sustainability of development in many regions in Estonia, which in turn backfires to the sustainability of development of Estonia as a whole.

To balance the development of regions, an integrated approach is needed to overcome the internal weaknesses of regions and make use of the developmental opportunities – otherwise, the internal development balance may decrease further and the backlog and development disparities of some areas increase even further.

From the standpoint of the vitality of the regions, it is essential to make them more attractive for entrepreneurs and investors. Development of the local entrepreneurial environment and labour force is the main precondition for accelerating the economic growth of regions, considering the general development opportunities of Estonia which include among else the rise of volume and quality of mobile foreign direct investments. The development of enterprises and growth of the productivity must be in Estonia more homogenous across the regions. Therefore, it is necessary to take into account not only county-level but more specifically the local and city- and municipality-level differences and weaknesses when planning the state activities.

From the standpoint of the development of Estonia as a whole, the multitude of natural and nearly natural ecosystems, the rich preserved cultural heritage and traditional know-how form an essential strength. Those resources have a specific quality in each region and their complex utilization for enlivening the local life- and economic activities, tourism and recreational activities has high importance for the competitiveness and sustainability of regions especially considering the development opportunities related to the growth of tourism. Supporting the relevant internal initiatives of the regions allows utilising the resources more efficiently.

It is also important to guarantee the equable availability of public services, which is one of the most determining factors for population (incl. labour force) migration.

The role of county and local centres in reinforcing of the sustainable development of their hinterlands needs to be strengthened. Their public services infrastructure needs modernization in order to grant to the residents of the centres' hinterlands competitive opportunities for general education and recreation. This also brings about the need for greater territorial concentration and specialisation of such services.

The role of county centres in regional economic development needs special strengthening, since there are only 5 considerable urban areas in Estonia and most of the country falls outside their impact area. Most county centres and a few other places feature independent sources of innovation in the form of branches of higher education institutions, vocational education centres, county development centres and single research institutions. Their interconnections and their role in creating the specialised entrepreneurial and activity networks needs strengthening.

The provision of communal services needs modernisation and reorganisation in areas of decreasing population density. The concentration of sizable public services to centres conditions an additional need to improve the connection opportunities. In addition to supporting the activities of local municipalities, the role of communal self-initiatives and their capacity to shape the local living environment needs to be strengthened. Non-profit organisations and local municipalities have an important role also in the development of local entrepreneurial networks.

Due to the fast growth of cities, the several urban-specific problems need solving as well. First of all, there is a need to facilitate regeneration of greater urban areas but also the increasing of international competitiveness of cities and solving the social problems resulting from urban development.

Increasing national administrative capacity

Efficiently functioning administrative organisation and professional and capable partner organisations are the basis for successful design and effective implementation of EU-related as well as purely domestic policies and strategies. Effective, transparent and open public sector and involvement of partners in the decision-making are keys to implementing the good governance principles.

Increasing the administrative capacity of both the public and non-profit sector would enable to use the resources more effectively and efficiently and reduces excess bureaucracy. Accordingly, Estonian administrative capacity development will need to be two focused in two areas: more coordinated and analytical strategic management, and better regulation.

Raising the effectiveness and efficiency of policy formation and implementation and raising the level of the strategic planning and management capability of public sector organisations and social partners will be of key importance; among else for improving cooperation between different institutions. The prerequisite for increasing administrative capacity is consistent and systematic development of skills and knowledge of the civil servants of different government levels and third sector representatives.

Considering the relatively weaker administrative capacity of local authorities, it is more important than hitherto to orient the training and development activities to improvement of general administrative capacity at the local level.

From the standpoint of administrative capacity, it is important that non-profit organisations would be strong partners for the public sector, which would enable better provision and delegation of public services. Thus, it is necessary to support institutional development of Estonian non-profit organisations through improving their access to information, counselling and training at the county level.

It is important to improve the cooperation within the public sector and between the public sector and non-governmental organisations, especially in the areas of strategic planning and development of legislation. Supporting the institutional development of Estonian non-profit associations is necessary in this respect for them to participate more and better in the development and implementation of sectoral action plans.

3.2. Headline objective and outline of the strategy for 2007-2013

To develop in the years 2007-2013 the eligible policy areas with the help of EU structural assistance as efficiently as possible for attaining long-term development (including moving towards the objectives of the "Sustainable Estonia 21"), the **headline objective** for the NSRF is set as follows: **fast and sustainable development.** This objective entails in itself three sub-objectives:

- rise of competitiveness of the economy;
- increased social cohesion;
- more sustainable use of environment.

Such formulation of the headline objective ensures consistency between the current and future policies of Estonia since this type of objective has featured in Estonian economic policy and EU structural assistance use for years now. Considering the current development situation of Estonia, the objectives of raising competitiveness of the economy, increasing social cohesion and making the use of environment more sustainable are still just as relevant as before because they are the key components of sustainable development.

The long-term development and convergence depend primarily on the speed of economic growth, for which it is important to raise the international competitiveness of the economy. At the same time, it is important to pay attention to the distribution of potentially increasing welfare in the society – the social and regional balance that determine the social cohesion of the society. Otherwise the longevity of development is in danger since the social problems will be amplified and national resources and development opportunities not be utilised optimally. In the name of the longevity of development it is essential to deal also with securing the growth of environmental sustainability without which it would be impossible to maintain the sustainable economic development for long.

The headline objective of fast and sustainable development reflects the movement towards the common goal of both Estonia and the European Union for which the structural assistance is provided to Estonia: the long-term goal is the convergence of Estonian living standard to the EU average.

Both the use of EU structural assistance within the framework of Operational Programmes and the related domestically funded activities that are contained in the current strategy are aimed at reaching the headline objective of the NSRF – ensuring country's fast and sustainable growth. This helps to ensure the harmony and synergy between the nationally funded and EU co-financed activities. Adding EU structural assistance to own resources allows Estonia to potentially remarkably accelerate the socio-economic development in the country and raise national competitiveness, but the EU funds cannot replace the required domestic activities that also have to be there next to them

In order to move towards the headline objective, there is a need to carry out state activities under the following analysis-based and purposefully stated priorities or action areas:

- **Educated and active people –** both the economic as well as societal development depend on the ability of people to subside independently, develop themselves and their quality of life. The essential prerequisites for that are good health, good education and skills and opportunities to use the education successfully in the labour market**;**
- **Increase in the research and development capacity and in the innovativeness and productivity of enterprises** - the speed of economic growth and its long-term continuation and the competitiveness of the economy, depend currently and will depend even more in the future, on the level R&D and innovation capacity and the productivity of enterprises. Thus, Estonia needs to take the course towards developing the knowledge-based economy which would bring about increased productivity and added-value creation**;**
- **Better connection opportunities** – the development of domestic and international connection opportunities and increasing accessibility to them enables to created preconditions for the continuation of economy's competitiveness, since it increases the efficiency of enterprises and the work and movement opportunities of people. It also

enables to create conditions for increasing social cohesion, i.e. balancing the national development regionally and socially;

- **Sustainable use of environment** – ecological balance is the central condition for sustainability of the society. It is especially important to pay attention to environmental protection in the era of fast economic and social development, so that development would not result in the worsening of the environmental conditions**;**
- **Integral and balanced development of regions** – the integral and balanced development of the regions of Estonia enables directly to increase regional balance of the economic development, at the same time helping to advance both the speed of economic growth through increasing the competitiveness as well as its sustainability through increasing potentially environmental sustainability;
- **Higher administrative capacity** – it necessary to raise administrative capacity of both the public and the third sector in order to ensure success of the activities of other priorities of the NSRF and achieve the intended impact, as well as create conditions for everyday functioning of the state.

The main activities contained in the priorities have been designed based on the previously presented analysis and described within the descriptions of the priorities below.

3.3. Indicators

It is not functional to determine indicators for measuring the attainment of the headline objective of the strategy as the speed and sustainability of development depend on very many factors that cannot be influenced by the current strategy. As a result, the indicators of headline objective would not be particularly relevant for reflecting the impact or results of the here-by planned activities – although such indicators would perhaps give an understanding of the changes in the operational environment of the strategy's activities and context.

It is more practical to determine the indicators for measuring the effects of the strategy at the sub-objective level in order to be able to determine the direct impact of intended and implemented activities. Namely, the attainment of sub-objectives depends to a much greater extent on the strategy's activities than the headline objective.

Indicators have been determined for each of the sub-objectives in a way that they would reflect the intended impact of priorities and activities – all the indicators presented below are **impact indicators**. They are inter-priority indicators in nature as the attainment of their target levels depends on the effectiveness of activities under more than one priority, i.e. the mutual effect and synergy of priorities.

The progress towards target levels will be monitored during the monitoring of strategy implementation. The aim is gradual improvement of the situation through gradual convergence to indicators' target levels, although the specific interim target levels have not been determined here-by.

Rise of competitiveness of economy

Indicator	Explanation	Current level	Target level
Employment rate (%) among people aged 15-64	Employment rate measures the number of employed people in the working age population. Higher employment increases the production potential of economy, but the increase of employment is also a consequence of economic development (increasing demand for labour). Rise of employment helps to increase the consumption ability of population and there-by gives further impulse to economic development.	64,4% (2005)	72% (2014)

	The source is Estonian Statistical Office; data are published also at Eurostat web page. The determined target level is fixed in the Action Plan for Growth and Jobs 2005-2007.		
Productivity of companies – per employee from EU-25 average	Measured in relation to EU-25 average, taking into account the GDP in Purchasing Power Standards. Company's productivity per employee shows how efficiently the people's abilities are in the economy. Increase of productivity allows to increase the economic production also in conditions where the number of working age people or employed is not rising (this is called intensive growth). Data are published at Eurostat webpage under structural indicators. This indicator and the target levels are used in Action Plan for Growth and Jobs 2005-2007 as well as in Research and Development and Innovation Strategy 2007-2013.	58,6 (2005)	*80% (2013)*
Survival rate of enterprises	The survival rate number of share of enterprises (with reported turnover) still operating 3 years after they were registered. The rise in the value of the indicator reflects the improvement of the entrepreneurial environment and the viability of enterprises. The basis for measurement is data from Estonian Tax and Customs Board. The indicator is used in the Estonian Enterprise Policy 2007-2013	63% (2005)	70% (2013)
Research and development investment of companies as percentage from GDP	The indicator reflects the orientation of companies to development activities and innovations s the core activities of raising competitiveness. The Statistical Office yearly collects data, which is published also in the Eurostat database under Structural Indicators. This indicator is used in Action Plan for Growth and Jobs 2005-2007 as well as in Research and Development and Innovation strategy 2007-2013.	0,42% (2004)	1,6%(2013)
Employment in high-tech and medium-high-tech industry and service (% from total employment)	Companies belonging to NACE code 24, 29-35, 64, 72 and 73 sectors are considered as high- and medium-high-technology industrial and service companies. Increase of employment in high-technology sectors shows that the phase of jobless growth has passed and companies have reached a higher level of development (their activities are more knowledge- and technology-intensive) and they expanding their activities. Data are published at Eurostat webpage. The target level is fixed in the Action Plan for Growth and Jobs 2005-2007 and the indicator is also used in Research and Development and innovation strategy 2007-2013.	7,57% (2004)	11% (2013)
Satisfaction of entrepreneurs with transport infrastructure	Satisfaction of entrepreneurs directly expresses whether the investments made into transport infrastructure contribute to the growth of companies and of the whole economy. The indicator is based on the results of an opinion poll of Estonian enterprise managers. Estonian Institute of Economic Research conducts the poll on a yearly basis for the periodical Estonian International	4,23 (2005)	4,65 (2013)

	Competitiveness. Average indicator of different means of transport is used (6=very good, 1=very poor). The indicator is used in the Transport Development Plan 2007-2013.		
Average life expectancy (M/F)	Average life expectancy shows the number of years to be lived on average at some age according to the life table in case no change in mortality. Here the average expected lifetime is measured at the age of 0 – average life expectancy at the moment of birth. The indicator is used for international comparison as a general indicator of the state of health of population. Long-term development potential depends on the life expectancy and the state of the health of population. Based on data of Statistical Office	M – 67,27 (2005) N – 78,14 (2005)	M – 73 (2015) N – 80 (2015)
Number of full time scientists and engineers per 1,000 employees	Directly characterises the size of labour force dealing with research and development, there-by also the size of the human capital necessary for the development of knowledge-based society. The latter influences speed of economic development as well as the long-term sustainability of economy and development of society. Statistical Office yearly collects data by the common method of EU and OECD. The indicator is included in Research and Development and innovation strategy 2007-2013.	5,1 (2004)	8,0 (2013)
Rate of participation in life-long learning	Measured as the percentage of adults participating in adult training among the residents aged 25-64. The indicator shows the readiness and opportunities of people to participate in further training and retraining. It is a key reflector of the flexibility of education and labour market and of the continuous updating of knowledge and skills Eurostat labour market survey data are used for monitoring. The indicator is included in the Life-Long Learning Strategy 2005-2008. Target level after 2008 will be determined in the future.	6,5% (2006)	11,5% (2013)
Number of graduates in technical fields	Measured as the percentage of graduates in natural sciences and sciences and technology, production and construction fields from all graduates. The development of science and technology and existence of relevant human resource is the foundation of knowledge-based economy, which in turn is essential for the sustainability of development. The data is gathered via Estonian Education Information System (EHIS).	20,2% (2004)	25% (2013)

Increased social cohesion

Indicator	Explanation	Current level	Target level
Poverty risk rate	The poverty risk rate shows the percentage of people living in poverty from the total population. In EU, people whose income is less than 60% of the median income are regarded as people living below the poverty risk limit. The poverty risk rate is the most essential indicator showing the social balance of state's	19,3% (2004)	15% (2014)

	development and there-by the social cohesion, reflecting the distribution of incomes in society. Since the value of indicator is a ratio, it can also be interpreted as a risk or probability to be poor. The source of measurement and monitoring is a survey of Statistical Office on incomes and costs of a household.		
Lowest employment rate in counties	The differences in employment rates in counties reflect the under-utilisation of labour resources of regions (and indirectly the activity of people in broader sense). They are an essential factor for acceleration of spatial concentration of population and economy, and also for balancing the regional development opportunities. The differences are measures as the percentage of employed people in the working-age population (age 15-74) by counties. The source is Statistical Office data. The indicator is featured in the Estonian Regional Development Strategy 2005-2015.	45% (2005)	Not less than 50% (2015)
The regional GDP difference	The regional GDP differences reflect the unequal contribution of regions to national economic growth and the value-added produced in the region, as well as competitiveness of the regional entrepreneurship and employment opportunities. It is measured as the difference between the highest and lowest county-based figure of regional GDP (adjusted per inhabitant, in current prices) based on the date from Estonian Statistical Office.	3,6 times (2004)	Not more then 3,5 times (2015)
The difference in the wages of men and women (wages gap)	The differences in remuneration of men and women (wages gap) is calculated as a difference in average hourly income of men and women as a ratio to the average hourly income of a male employee per working age population who work at least 15 hours a week. The wages gap is one of the main indicators of gender equality reflecting the gender balance and different valuation of genders. There-by, it reflects the dependence of life and development opportunities on gender – and related social cohesion. Source of measurement and monitoring is remuneration structure survey by Statistical Office.	25,4% (2005)	20% (2010)
Percentage of people included in the information society: - number of Internet users - use of Internet at home	The skills and possibilities to use Internet are more and more important for participating in the social life as a full member. A 15-74 years old resident who has used during the last 6 months Internet, is regarded as an Internet user. A 15-74 year old resident who has used during the last 6 months and one of the places of use has been his/her home, is regarded as an user of Internet at home. Data source is a survey yearly ordered by the Ministry of Economic Affairs and Communication. The indicator is used in the Information Society Development Plan 2007-2013.	Percentage of Internet users: 53% (2005) Use of Internet at home: 36% (2005)	75% (2013) 70% (2013)

More sustainable use of environment

Indicator	Explanation	Current level	Target level
Percentage of water bodies in good state	The condition of water eco-systems characterises in general the avoidance of harmful impact of human activities on water environment. At the same time, it also reflects to a great extent the safety of natural environment to people's health. Both of these are prerequisites of the sustainability of development. The good ecological condition is determined on the basis of the results of monitoring of biological, hydro-morphological and physical-chemical quality indicators. The percentage is measured as a percentage from all water bodies. Estonian Environmental Information Centre performs monitoring on the basis of yearly data.	65% (2004)	100%(2015)
Recycling rate of solid waste (excluding oil-shale and agricultural waste)	Recycling of waste covers their reuse, circulation and use as an energy source. Recycling reduces the environmental pollution caused by waste, reduces the need for further use of natural resources and makes waste management more efficient as a whole. Hence, the rate of recycling expresses the sustainability of development in general and the environmental sustainability, in particular. In order to ensure comparability with other EU countries, the oil-shale industry and energy-related waste and agricultural waste are not considered here. Monitoring is performed on the yearly data of Estonian Environmental Information Centre.	36,7 % (2004)	60 % (2015)
Volume of using primary energy	The efficiency of using primary energy is very low in Estonia. Hence, the energy use has to be made more efficient in order to increase the sustainability of economic development while the economy is growing fast. The target level for 2013 will be determined in 2008. The current target level comes from Fuel And Energy Economy Long-Term State Development Plan until 2015. Based on data of Statistical Office.	Provision with primary energy in 2005 – 60,0 TWh	To keep the level of primary energy consumption at 2003 level until 2010 (59.6 TWh)
Percentage of public transport users among working people	The indicator is based on the data of Estonian labour force surveys, but it reflects the changes in general choices that people make for satisfying the transport needs. National development is more sustainable (especially environmentally) when people use more environmentally friendly transportation solutions like public transport. The latter also helps to reduce the pressure on transport infrastructure – thus, the need to build or repair the roads. In conditions of deepening pressure to motorize, the retention of the share of public transport users reflects also the qualitative development of it and the general transportation system. The indicator is included in the Transportation Development Plan 2007-2013 and Public Transport Development Plan 2006-2010.	29,9% (2004)	30% (2013)

3.4. Priority 1: Educated and active people

Main activities

Increasing the quality and flexibility of studies in Estonian, creating equal opportunities for skill- and interest-based life-long learning and improving the quality and availability of youth work

The quality of studies depends to a large extent on the conditions of studies. Modernization of the learning environment of educational institutions (vocational schools, institutions of higher professional education, universities, and schools for children with special needs) will be continued in order to ensure the necessary investments for securing the sustainable educational institutions with quality training base, infrastructure and instructional means that meet the modern requirements and near future needs. Curricula development at all educational levels will be continued. Among else, support will be given to teacher training; formation of vocational and higher educational curricula to competence-based and towards correspondence with vocational standards. International cooperation of educational institutions and mobility of students and lecturers will be supported for maintaining and developing quality of studies.

To increase the flexibility of education and opportunities of life long learning, a large-scale adult professional continuing education and retraining system will be created allowing all people to participate in training. Training addressing the utilisation of new technologies (including ICT) will be primarily supported, but also other trainings supporting knowledge-based economy. The employment-related retraining and further training will be extended in vocational schools, in particular. For this, the modernization of study bases, utilization of newest study methods and increasing the readiness of vocational teachers to train adults through their training will be used. System for considering prior study- and work experience (VÕTA) will be developed and implemented with the support of renewed vocational qualification system, curricula based on study outputs and the subject point systems of higher and vocational education. The internet-based learning (e-learning) opportunities will be developed at all educational levels and life-long learning. Competence-based qualification system will be developed further and its connections with European Qualifications Framework, in association with the curricula development.

The aftergrowth of scientists and engineers depends on youth interest for studies in the fields of nature and exact sciences. The interest for these fields has to emerge already in primary school children, which is why support will be given to establishment and development of interactive science centres, technology and hobby centres and youth science schools; organization of study camps; participation in subject olympics and competitions; and other projects aimed at advancing the innovation interest of youth. In the fields of nature and exact sciences and technology, the opportunities for continuing the studies on the basis of vocational training at the level of higher education will be created; additional study places established; and adult learning supported via flexible study forms (incl. e-learning) and VÕTA implementation, including the continuation of previously suspended studies.

Teachers', lecturers' and adult trainers' self-development opportunities and professional development will be supported by provision of professional, pedagogical, andragogical and IT-training.

To support the growth of quality and flexibility of education, integral communication and counselling systems will be developed which would cover study, profession and career counselling, also counselling of students with educational special needs and learning difficulties. In order to prevent fall-out from educational system, support will be continued to the creation of flexible study opportunities and study forms that take into consideration the individuality and educational special needs of students. Mobility of students between educational levels and types will also be supported together with reinvolvement of those who have disrupted their studies earlier.

To improve the quality and availability of youth work, the youth work quality evaluation system will be developed and implemented and training of youth workers will be developed. Youth work institutions, youth organisations and extracurricular education and activities will be supported. Through national programme support will be given to youth work institutions, youth organizations and extracurricular education and activities

The development of youth work infrastructure (open youth centres, informational and counselling centres and extracurricular schools) will be supported and conditions created for involving youth into the decision-making that affects their lives.

Further development and implementation of financing models and quality assessment systems of all educational levels will be supported which take into consideration the equal access to studies and requirements of study quality more than before. The entrepreneurs and labour market participants will be included more in the development of educational system. Information systems of education will be developed and development of educational research programme, which would give basis for making adequate educational decisions, will be supported.

Preventing illness, favouring healthy choices and life styles; hindering the spread of infectious diseases; reducing environment-related health risks; and ensuring the availability of health care services that meet the health needs of the population for maintaining and improving the population's health and capacity to work

The state (county governments) and local level (local municipalities) have an important role in promoting health and preventing illness. Therefore, enhancing the local level capacity to plan and implement the public health activities on the regional level will be in the focus including preparation of health strategies, development and implementation of action plans at county level according to the analysis of the public health situation and local needs. In accordance with national strategies, the activities will be among else aimed at addressing the low physical activity of people, unhealthy nutrition, consumption of addictives (incl. tobacco, alcohol, drugs) and increasing secure behaviour. To increase the health awareness and develop the skills of people to make healthy choices and health supportive decisions, the availability of services, means, information and knowledge on local level will be improved and cooperation among public, private and third sector strengthened.

Provision of health care services should be rearranged according to the health needs of the population. Considering the demographic and epidemiological trends and technological development, the share of hospital treatment will fall and the need for illness prevention, chronic disease monitoring and treatment-related primary care level services rise. Accordingly it will be necessary to create conditions for improving the access to nursing and care services relying on modern principles.

The planned optimisation and modernisation of the hospital network creates preconditions for providing high-quality stationary special medical care and allows using the resources more efficiently. The basis for developing the hospital network will be the development plan of the network that has been adopted by the Government of the Republic. The plan foresees 19 acute care hospitals for ensuring equable availability of health care services. The objective of the plan is to create by 2015 an optimal hospital network that corresponds to the needs of the population by assembling the expensive special medical care to larger centres and developing on the local level services that proceed from needs of the population and assure the consistency of treatment. Health care services that have to be available for people as close to the residence as possible, are primarily the family doctor care, nursing care, rehabilitation and disease-preventive health care services.

To facilitate the information exchange between the service providers and improve the quality and availability of data necessary for monitoring and planning, the development of e-Health services will be continued which covers the development of infrastructure (computerising, IT-developments, security systems), standardising (implementation of international classifications, implementation of medical standards, integration of clinical guidelines into information systems) as well as ensuring the

protection of personal data and security (security requirements, legal system, supplementing of legal space).

The capability and sustainability of public health as well as the health care system have to be recurrently increased. For this reason, sufficient number of specialists with appropriate qualifications will be trained and opportunities created for basic as well as continuous and in-service training.

Increasing of supply of qualified labour force and improving the quality of work life

To increase the long-term supply of qualified labour force, the prevention of unemployment and inactivity will be dealt with. The key activities here include development of vocational and career counselling in cooperation between Ministry of Social Affairs and Ministry of Education and Research as well as creation and expansion of continuing education and retraining for people currently working. Promotion of using the flexible work forms will be also dealt with which is important for keeping several groups employed – e.g. parents, disabled people and people of older age but also people from further regions.

At the same time it will be important to activate and bring into employment the unemployed and people who are inactive for different reasons (inc discouraged persons) via offering several services and active labour market measures (e.g. activation, training, counselling and other) according to individual needs. Special attention will be paid to the early identification of problems and providing relevant measures to people belonging to labour market risk groups (young people, disabled, long-term unemployed, non-Estonians, people of older age and other). The development of national labour market institutions will be also addressed with the aim to raise their efficiency and correspondence to the needs of job seekers and employers.

Considering the demographic situation of the state but also the growth of the mobility of labour force, attention should be paid in the future to the issues of labour force migration and this in respect of immigration as well as emigration. To develop a consistent labour migration policy the availability of statistics and surveys will be improved. At the same time, the activities raising the awareness of labour force about different possibilities and threats and rights in connection with working abroad will be carried out as well.

There will be three main strands of activities intended to improve the quality of work life. The working environment needs to become sparing on employees' health – the current activities aimed at increasing the work environment quality will be reviewed and more attention be paid to awareness raising instead of surveillance. In order to increase the clarity and flexibility of the working relation, most of the legal acts concerning the labour relations will be renewed (to comply with the legislation within the policy domain and beyond), paying thereat attention to rising both employees' and employers' flexibility. Increasing the satisfaction with work life will contribute to the improved quality of work life - this will be supported by communication activities aimed at increasing the employers' and employees' awareness about their rights and obligations, while also providing information about existing good practices and opportunities related to education and training. The development of the insurance system for accidents at work and occupational diseases also contributes to the improvement of the quality of work life.

Implementation of those activities will be supported by setting up data collection and surveillance systems for labour policies, creating competence on relevant impact analysis, developing service standards, introducing quality systems while also raising the competence of relevant service providers and policy-makers.

Developing the welfare services, increasing social inclusion and promoting gender equality

To ensure people's ability to cope economically and socially, the first aim will be to develop the welfare services supporting entrance to labour market and working for disabled people, long-term social aid applicants. Working of parents with children will be supported through improvement of childcare possibilities. To reduce the care load of labour force, in addition to development of social

welfare services addressing children and families and disabled persons the emphasis will be also laid on improvement of the possibilities of availability of care services for elderly people. It is planned to improve the services of local government and integrated provision of care and nursing care. The direction to provision of integrated aid will be taken that is why in providing services the principles of case management will be implemented and relevant administrative capability will be developed.

To improve the participation opportunities of young people and working age persons with severe and long-term special psychic needs in economic and social life, a better living and working environment will be created for them, contribution made to enhance their learning opportunities and ensure better access to education, health care and labour market services. For that it will be essential to rearrange the social welfare institutions for people with special psychic needs. At the same time it will be important to take children's and elderly people's welfare institutions to home like conditions in a socially supportive environment. Besides the availability of quality housing deriving from the needs of people through improvement of the housing stock and housing services will be guaranteed and provision of rehabilitation services to increase independent ability to cope and inclusion of people.

Identified risk groups (families with children having difficulties with coping, disabled people, elderly) will be specifically dealt with to improve their development opportunities and thereby favour the reduction of their exclusion and raising their inclusion. People being in social exclusion will be enabled to implement their abilities and participate more in economic and social life to increase their independent coping and to guarantee their equal treatment. Essential attention will be paid to increase the access freedom in the architecture and town planning; mobility and sports opportunities, self-aid and support opportunities will be improved. The opportunities for getting help will be improved for crime victims through improving the availability of counselling services and expanding the opportunities for getting the compensation.

In conditions of diminishing number of population and ageing population special attention will be paid to children. Child protection regulation must support growing up a child in family environment. In guaranteeing the well being of children without parental care the ensuring of the best raising environment – family or family-related atmosphere is very important. Since in bringing up a child in a family-related environment has a big role the person raising the child it will be very important to improve continuously that person. For that the volume of state trainings will be essentially increased addressing the persons raising a child, first by increasing the volume of trainings for foster parents and educators working in children's homes. In addition to supplementary training, special attention will be paid to development of preventive services of children's welfare services.

Separate focus will be put on promotion of gender equality as one of the most essential social right, human right and human development factor. Special measures will be implemented to reduce the social inequality in order to increase more equality of the rights of men and women, their responsibilities and opportunities, and gender mainstreaming of activities undertaken. In both activities, attention will be paid to increased information, relevant trainings, implementation of social impact evaluation and more involvement of men. For reducing gender pay-gap purposeful professional consultation; activities to reduce segregation of educational and labour market; and activities to support economic independence, career and attainment of decision power of women will be supported. The projects help to elaborate various opportunities for uniting the job and family life for both men and women and reduce stereotypic gender roles. Increased involvement of women in entrepreneurship will not only support creation of jobs and better work conditions, but also help to diversify the economic environment, create opportunities for the supply of innovative products and services. To raise the administrative capacity, an information centre for gender equality will be established as a pilot project mediating know-how for integrating gender aspects into programmes and projects, for evaluation of projects and conducting trainings and for offering information on the best experience from Estonian and EU, employing also the information services offered by the in-creation European Gender Equality Institute.

Improving the efficiency of integration of non-Estonians

To increase social cohesion, continuous support will be provided to integration process, in linguo-cultural, legal-political and socio-economic integration respects. One important measure improving the efficiency of integration will be the transition of Russian-speaking schools to study in the Estonian language, which will be supported by several activities (training and counselling of teachers, development of materials, etc).

The socio-economic measures (labour market measures, social welfare, etc) are mostly of a general kind and encompass the whole population. Hence, they have not been as present in the integration process to date, as has been language study, for example, that is an activity aimed directly at non-Estonians. In the future, the share of socio-economic measures will be increased and an attempt made to adjust them suitably, also more integrated with language study. The labour market measures aimed at non-Estonians will be developed and offered, successfully developed services and programmes expanded (e.g. the labour exchange programmes between different regions). In youth work, the shaping of tolerant attitude to different ethnic groups and their cultural particularities will be aimed. Special attention needs to be paid to non-Estonian target group also in the development and implementation of HIV/AIDS and drug prevention and damage restriction measures, due to the ethnic profile of HIV-infected and injecting drug users. Focus will be recurrently put on the regions where there is a large non-Estonian community and also socio-economic backwardness (primarily Ida-Virumaa).

For several reasons, the rise of the share of new immigrants can be expected. It is probable that a successively growing number of foreigners will be arriving in Estonia with the aim to work, for family reasons, as asylum seekers, etc. To guarantee their active participation in the social life and labour market in accordance with their interests and capabilities and to avoid the emergence of stand-alone groups in the society and the related social problems, there is a need to elaborate and implement measures that ease the adjustment of new immigrants (e.g. various courses and training programmes, info materials and channels, elaboration of the educational model for the children of new immigrants, etc).

Links with other priorities

Priority Educated and active nation is connected with all other priorities being either a prerequisite for achieving them or depending on them, as the development of human resources is cross-cuttingly important in all areas.

Increase in the R&D capacity and in the innovativeness and productivity of enterprises
High-quality educational system is the basis for research and development activities. The designated priority in turn guarantees the training of top specialists and through higher education influences the quality of education. The activities in the education field are also a prerequisite for achieving the entrepreneurship related targets since the knowledge based economy and high value added entrepreneurship could be built up only with the highly educated people. In conditions of growing economy the overall size of labour force is an essential factor besides the qualification of the labour force and this priority also includes raising the supply of labour force.
The state of health of people and social coping in large extent influences their capability to participate in social and economic life and it has a direct impact on the performance and competitiveness of the enterprises. Educated, physically and mentally well people coping with their lives are more productive and innovative. Availability of supportive health care and social welfare services allows also those people who are engaged with taking care of their family members to participate in value added production
Growing entrepreneurship and creating of new jobs in turn creates more opportunities for people to participate in social and economic life and thereby supports the development of people.
Actions towards the development of knowledge-based economy bring in their wake serious restructuring – but only if a sufficient amount of qualified workforce is available. Flexibility of education and possibilities for retraining in diminishing economic branches are also important for structural changes. Therefore sufficient support to educational and employment activities within the

priority of educated and active Estonian nation is crucially important for ensuring a smooth course of turning into a society with a knowledge-based economy.

Integral and balanced development of regions
People working and having income and existence of working places and opportunities of individual development are essential development prerequisites of every region.
The availability of public services (including health and welfare services) helps to keep people in so-called periphery regions. The availability of primary health services is one of the main preconditions for integral and balanced development of regions.
The longest part of the education is spent in comprehensive schools, where the learning willingness for the rest of the life is initiated. Since arrangement of the local school network is under the competency of local municipalities, the investments of municipal comprehensive schools are covered with the regional development priority. Only the investments of the state-administered schools for children with special needs are covered in the current priority.
Availability of public services (incl. health care and social welfare services) helps to keep people also in periphery areas. Availability of primary health care services is one of the prerequisites for balanced and integral development of regions.

Better connection opportunities
Better transport and communication opportunities have an impact to arrangement of the whole school network and ensure better access to educational institutions further from home. Development of national e-services (incl. e-health) and local roads and transport creates prerequisites for improvement of availability of health care, social welfare and other public services. E-health services development contributes to development of information society on which in turn depends on the spread of adoption opportunities and demand of those services.
The increasing traffic safety involved with development of transport networks results in reduction of the number of people getting killed and injured in traffic accidents, which has expected positive impact on the health indicators of population concerning the external causes of mortality.

Sustainable use of environment
Environment is essentially influencing health and reduction of environment related health risks is very densely connected with the activities targeted at reducing the environmental load.

Coherence with Community Strategic Guidelines

The guidelines emphasises the need to support implementation of Lisbon Strategy by investing in human capital. Priority is directly addressing the implementation of the general guideline "More and better jobs. Increasing investments in human capital on the way to promote education and enhance the skills is foreseen as the first guideline within this framework. Thereat it is designated that relevant attention should be paid to investments in infrastructures of education. Another guideline addresses the increase and maintenance of employment and modernisation of social protection system. In addition, on of the guidelines stipulates the need to deal with increase of adaptability of employees and enterprises and flexibility of labour markets. The priority deals with all highlighted objectives. Guideline 4.3.5 also determines healthy and working population as one of the key areas in achieving the employment related objectives of the Community. The activities under this priority are planned in accordance with the measures highlighted in the guideline to prevent the health risks and minimise their potential damage to health and to improve the availability of health care services by taking also advantage of developing the e-Health services.

Coherence with Estonian Action Plan for Growth and Jobs 2005-2007

Priority activities comply with the following objective and measures of Action Plan for Growth and Jobs 2005-2007 in Estonia:

- Ensuring the long-term sustainability of fiscal policy (objective 2)
  Acting towards improvement of the health status of people contributes to ensuring long-term sustainability of health insurance system (measure 2.2); at the same time employment of aged people, social inclusion and improvement of life conditions helps to guarantee the

living standard in retirement age and reducing pressure on pension insurance system (measure 2.1).

- Increasing the quality of research and development, as well as the capacity for innovation, growth, and long-term international competitiveness (objective 4)
  Quality educational system and educated people form the basis for increasing the quality of research and development activities since thereby directly the human capital necessary for R&D advancement and long-term competitiveness of the enterprise sector is developed (measure 4.2).
- Improvement of the quality of labour force (objective 7)
  Education field activities of this priority allow improving the flexibility and efficiency of formal education including improvement of cooperation between different education levels (measure 7.1). Essential contributions are also made to improvement of quality of education (measure 7.2); increasing youth employment readiness by improving the effectiveness of youth work (measure 7.3); developing a continuing education and retraining system in line with the principles of lifelong learning (measure 7.4); and developing vocational, career, and learning counselling (measure 7.5).
- Increase in labour supply (objective 8)
  Majority of the planned activities in the labour field are addressing the increase of employment including through labour market measures and providing supportive social measures (measure 8.1). Activities planned for improving the health status of the population and increasing quality of working environment are compatible with measure 8.2.
- Increase in the flexibility of the labour market and modernisation of the labour relations (objective 9)
  Increasing the flexibility of the labour market and ensuring modern and balanced labour relations are further dealt with in the working area (measure 9.1)

Coherence with Estonian Rural Strategy 2007-2013 and Estonian Fisheries Strategy 2007-2013

The aim of both the fisheries as well as rural strategy is the creation of favourable conditions for increasing employment in the relevant sectors and there-by improving the life-quality in rural and coastal regions. There-by the implementation of rural and fisheries strategies will support the implementation of the current NSRF priority, contributing to the rise of activity and development opportunities of people in Estonia as a whole.

The activities the priority of educated and active nation contributes to the implementation of rural and fisheries strategies as well, primarily by impacting the raise of knowledge and skills of people. The development of human potential in agricultural, food, forestry and fisheries sector, including the retraining and supplementary training, will be supported under rural and fisheries strategies. The current priority is aimed at the rise of the level of education and activity in the population at large; among else the human potential development of the people from the aforementioned sectors and areas will be supported through supporting their general qualification attainment and retraining if they wish to change fields to other economic activities. Through development of education and especially the vocational education infrastructure, support is also directed to investments into agricultural vocational schools' infrastructure under this strategy.

Coherence with other EU and domestic policies and strategic documents

The priority supports the achievement of the headline objective of Lisbon strategy – movement towards more competitive and knowledge based economy, in particular in terms of achieving the objectives of lifelong learning and employment. From among the international documents, planning of the priority is also based on European Social Charter; UN International Pact On Economic, Social And Cultural Rights, Joint Inclusion Memorandum, Strategy Of Guaranteeing The Rights Of The Child, programme Education and Training 2010, Bologna declaration (1999), Copenhagen declaration (2002) and European Youth Pact (2005).

For planning the activities in the vocational education area, the Estonian Vocational Education System Development Plan for 2005-2008 has been take into account, incl. the needs for realising the vision Vocational Education 2015 contained in the development plan. Primarily the support will be given to implementation of the following activity areas of the development plan: developing vocational education institutions into development institutions, advancing the system and content of curriculums, elaborating the further training system of teachers from vocational education institutions and developing the vocational qualification system.

The priority also supports the realisation of Estonian Higher Education Strategy 2006-2015 objectives and activity areas, in particular through the focussing of studies on the nature and exact sciences, development of e-learning (incl. in the regions), matching the higher education better with economy's needs and students expectations – among else through curricula development and increased internationalisation. The basis for e-learning development has been the e-learning Development Centre Strategy 2007-2013 from Estonian Information Technology Foundation. The basis for higher education internationalisation activities has been the Estonian Strategy for Internationalisation of Higher Education 2006-2015.

The priority is in accordance with the focuses of the development plan for the general education system for 2007-2013: the development of national curricula; the development of councelling and information system supporting the lifelong learning; creation of study conditions that consider students' special needs and individuality; the creation of models for professional development and career system of teachers. In addition, the priority supports implementation of Youth Work Strategy 2006-2013 that is aimed at enabling the diverse development of young personality by increasing diversity, accessibility and quality of youth work; the Life Long Learning Strategy 2005-2008; the Estonian Language Development Strategy 2004-2010; the programme State Integration In Estonian Society 2008-2013 (under preparation); and Language Training Strategy Of Non-Estonian Speakers.

Planning of activities in social area has been based on the State Report on Social Protection and Inclusion 2006-2008. The underlying principle of social protection and inclusion development is that in order to solve the problem, the association and coordinated implementation of different policy fields (in particular the measures of economic, education, employment, social protection, health and housing policy) is necessary as well as the relevant cooperation of institutions at both local and national level. The focuses for social protection and inclusion for 2006-2008 are the prevention and decrease of long-term unemployment and discouragement from labour market, and prevention and soothering of poverty and discouragement of families with children. These focuses are directly supported under the priority.

In addition, the priority supports the implementation of Estonian Housing Development PLan 2007-2013. Implementation of the plan will help to decrease poverty and social discouragement, enabling better choice of living places and living conditions for families with subsistence difficulties. Under both the plan and current priority support will be given to increase the availability of dwelling and quality and sustainability of housing stock.

Planning and implementation of activities addressing disease prevention and health promotion is based on National HIV/AIDS Prevention Strategy 2006-2015, National strategy for Cardiovascular Disease Prevention 2005-2020 and National Strategy for Drug Addiction Prevention until 2012. Basic documents for development of health care system include development plan of hospital network until 2015, Estonian Nursing Care Development Plan 2004-2015 and prepared primary health care development plan.

The activities to integrate the non-ethnic Estonians more efficiently to the society are aligned with and can be supported from European Integration Fund which has been set up on EU level to contribute to national efforts of integration policy. The Fund supports the development of national integration strategies and action plans which take into account the common basic principles for immigrant integration in the European Union, the coordination of national integration policies and the promotion of structural exchange of experiences, best practices and information on integration.

3.5. Priority 2: Increase in the R&D capacity and in the innovativeness and productivity of the enterprises

Main activities

Focuses: the thematic R&D programmes

In order to raise the quality and efficiency of R&D and ensure sustainability of the system, the existing and planned financial schemes will be focused on achieving the objectives set in the Estonian R&D and innovation strategy "Knowledge-based Estonia 2007-2013" and achieving the critical mass as well as on developing the quality assurance system. Resources will be concentrated to those research directions the potential of which enables achievement of good results in the front line of science and the outcomes and top specialists of which will support the economic development and other specific socio-economic objectives.

In order to prioritise and advance particular areas, thematic R&D programmes will be initiated:

1) in order to develop key technologies. These are:
   - information and communication technologies;
   - biotechnologies;
   - material technologies;

   as the technologies that are on the front line of RD&I and that create great value-added and productivity growth in a variety of fields.
2) in order to solve socio-economic problems and achieve objectives in the socio-economic fields that are of importance to each Estonian inhabitant, e.g. energy, national defence and security, healthcare and welfare,[21] living environment.

The focused thematic programmes will be primarily meant for developing R&D and innovation, advancing cooperation (links) between R&D institutions and enterprises and facilitating high-level applied research in the fields of importance to the state. The R&D programmes will be used to bring together RD&I demand – i.e. the needs of enterprises for developing new products and services, the needs of state institutions for carrying out the duties set forth under various policies; and potential – i.e. the internationally competitive research directions and teams. Under the programmes, the aim will be to initiate and carry out projects in cooperation between these two sides, enabling at the same time the achievement of objectives that are important to the state and creation of economic added value.

To give maximum impulse to RD&I related capacity growth, various balanced and mutually coordinated measures will be implemented under this priority with the aim of developing both the capacity for thematic R&D programmes as well as for general R&D – several other activities under the priority will targeted to supporting the development of thematic programmes. Such measures include the modernisation of the R&D infrastructure and machinery, the development of RD&I human resources, support to innovation capacity of enterprises, internationalisation and quality guarantee described below.

Investing into developing people's knowledge and skills

The necessary prerequisite of R&D, higher education and innovation capacity growth as well as the growth of international competitiveness of the enterprise sector will be the existence of relevant human capital. Estonian would need a substantially larger number of scientists and engineers holding PhD degrees comparable to the standards obtained in the developed countries to reproduce scientists and academics and supply both the private and public sector with top specialists. Therefore, new graduate schools will be opened, specialised grants for doctoral students and post-doctors will be implemented, and different mobility and training schemes designed for the academic

[21] The thematic R&D programme related to security will not be funded from Structural Funds.

and the business sector (incl. for linking the two) will be launched, among else with the aim to increase also the amount of top specialists in non-technological innovation.

In a similar way, the knowledge and skills of general managers and employees would need improvement. To make the intra-enterprise processes more efficient, the access of enterprises to new knowledge will be enhanced. In those areas of knowledge which will be critically important from the point of view of developing long-term competitiveness of enterprises but in which training is not readily available on the market, the government will provide and develop various training opportunities. In addition to the development of knowledge and skills of managers, the availability of means required for developing efficient management and the management field at large will be facilitated. It will be important, among else to increase the knowledge and skills of managers of enterprises in the field of innovation management. Creation of a critical mass of human resource within more promising development areas will also produce prerequisites for the inflow of knowledge-intensive foreign direct investments.

Developing high-quality and efficient national R&D system

Modern infrastructure is required for both training scientists and specialists as well as effective and high-level scientific work, including the tackling of the needs of enterprise sector – the base of both study and science labs.

The system of centres of excellence has evolved in the whole world, through which the major generation of new ideas takes places. These centres represent the growing field of top specialist and scientists in the scientific areas that they are internationally competitive in. For the development of centres of excellence in Estonia, resources will be directed to those fields of RD&I the potential of which enables to achieve results in world front line science (incl. the fields of thematic R&D programmes).

To increase the capacity of R&D system, the infrastructure supporting higher education, science and innovation, will be renewed – it will be necessary for educating the scientists and top specialists (the pilot projects have already been launched under the framework of the present Operational Programme for 2004-2006 period). This involves the construction of new laboratory buildings as well as repairs of old ones, acquisition of state-of-the-art equipment and apparatuses, as well as their maintenance of the modern level. Under the current priority, preference will be given to development of infrastructure projects that will be connected to either the thematic R&D programmes or R&D internationalisation efforts (e.g. synergy with the 7th Framework Programme) or originating from the needs of building technology-related human resources for the economy

In addition, R&D support infrastructures will be established and core labs will be created and developed in the fields of thematic R&D programmes.

Supporting R&D internationalisation

Estonia participates in building up the European Research Area through different forms of international cooperation, taking measures to increase the participative success of enterprises and R&D institutions in competition-based schemes (e.g. EU frame programmes) and integration of Estonia to Baltic Sea and EU science area. Through the development of international cooperation also the administrative capability of institutions supporting and coordinating public sector R&D activities and innovation will be strengthened. The planned activities include: support to scientific institutions and enterprises in 7th Framework Programme projects; participating in trans-national joint programmes and joint infrastructure projects and international benchmarking studies; ensuring the availability and efficient development of international distributed R&D and innovation infrastructure (GRID network, data communication, computing resources, data gathering networks, etc.) in Estonia; participating in the activities of the European Technology Institute; supporting enterprises and research institutions in their participation in European Technology Platform activities; developing other R&D support schemes in accordance with the suggestions of the CREST Open Method of Coordination working group, including the ERDF ideology of "Experimenting".

On both the domestic level as well as through accession into European networks the most recent scientific and technological information will be made more readily available, and R&D collections, electronic databases as well as data communication and networks will be developed and made more accessible to partners from EU.

Facilitating creation and utilisation of new knowledge, technologies and innovative approaches and increasing technological and development capacity of enterprises

Enterprises will be supported in raising their innovation capacity through horizontal support programmes that will be open to all economic sectors as well as advancing specific technology fields (e.g., within the framework of thematic R&D programmes). Support measures for activating and developing economic clusters will be initiated. The three key technology fields (ICT, biotechnology and nanotechnology) will mainly be supported as the tools or means for achieving wider targets of socio-economic nature and not for the sole purpose of technology development *per se*. At the same time, there will be a number of support measures which do not have a specific technology specific focus (such as clustering, support for technology parks and incubators) but serve the purpose of encouraging and nurturing also non-technological modes of innovation such as innovative services, organisational and process innovation.

Within the range of target groups of support measures, on the one hand enterprises today already performing R&D and innovation will be distinguished - for whom support will be provided for sharing their risks in development and marketing of new products and services. On the other hand, substantial investments will be targeted towards increasing the capacity of less R&D and innovation capable enterprises from so-called traditional economic sectors.

An important tool for increasing companies' R&D and innovation capacity, especially from traditional industries, is providing support for uptake of new technologies. This comprises a complex set of activities such as assisting companies in getting involved in international technology transfer for locating the best available technologies; investment aid (combination of grants, loans and loan guarantees) for the purchase, adaptation and installation of the new and environmentally friendly technologies; and providing training and counselling on company staff on how best implement the new facilities for increasing the company's capacity to innovate. The underlying rationale here is that inhouse technological competence is a crucial precondition for both in-house R&D capacity and accumulation of skills to purchase R&D from external knowledge carriers. This instrument is directly aimed at increasing the technological competence of companies since support is only provided for the uptake of leading edge world class technologies and not for simple substitution of existing technologies. The main source of value added has been seen in helping companies in activating business processes to fundamentally change the competitive edge of them by making radical modifications into their production technologies and product lines.

Special attention will be additionally paid to development and application of sustainable technologies and the best possible technology from environmental point of view.

Support to projects (applied research, technological development activities) for developing products, services and processes with high export potential will be continued and expanded also to projects with smaller technological risk and non-technological innovation (production of prototypes, testing, certifying, design and brand development, innovations related to organisation and marketing, etc). This is particularly important for changing the competitive advantages of traditional industrial sectors and facilitating the movement of enterprises towards higher value-added activities. The aforementioned support activities will be complemented by the support to involving a wide range of developmental staff (scientific staff, engineers, designers, quality managers, marketing specialists, etc) into enterprises with the aim to ensure the availability of critical human resources to enterprises for initiating, carrying out and successful marketing of the results of development activities.

To accelerate the developmental activity and facilitate the emergence and development of new innovative enterprises, it will be necessary to promote cooperation links between enterprises and

R&D institutions. Such cooperation creates the prerequisites for successful transfer of knowledge, skills and technologies and for creation of new knowledge-capacious jobs, helping to avoid the outflow of highly qualified specialists to other countries. For enhancing cooperation between enterprises and universities/R&D institutions, the initiation and enhancement of competence centres operating through cooperation of public and private sector will be supported together with the development of efficacious technology transfer units in university and higher education institutions.

To provide a favouring activity environment for innovative business ideas, research and technology parks and business incubators will be developed. The enterprises operating in these parks and incubators profit from the close vicinity of R&D centres; from the favourable business start-up, development and consulting services offered there proceeding from their needs; from the infrastructure and cooperation between the innovative enterprises. It will be very important to raise through the development of research and technology parks their capacity to attract to Estonia knowledge- and technology-intensive foreign direct investments that are aimed at created high added value.

For raising the innovation capacity in traditional economic sectors and building critical mass through enterprise cooperation (incl. with R&D institutions), it will be important to implement cluster-specific approach. The development of cooperation networks joining enterprises, R&D institutions and local municipalities will be supported. In the clusters that have been activated by the "bottom-up" approach, inter-enterprise cooperation in the fields of training, product development and export marketing will be supported. The accordance and coherence of other support measures to the cluster-specific needs will be ensured.

Increasing access to capital and entrepreneurship

The development of enterprises depends to a large degree on their access to proper seed, starting and growth capital. To help a starting entrepreneur in building up a viable, thriving and sustainable enterprise, their awareness and knowledge about the various financing schemes available will be increased and services designed to help them overcome difficulties of financing. The financing opportunities of operating entrepreneurs will be improved by removing obstacles from the capital market; expanding the loan possibilities for new, small-capital needing, innovative and fast-growing enterprises; and mediating the contacts between enterprises in Estonia and potential (foreign) investors.

In the case of a start-up entrepreneur, a complex approach will be provided to enable the parallel realization of good business ideas and the use of loan guarantees to involve financing needed for starting the enterprise. The development of skills and knowledge will also be supported through relevant training and information schemes. Since the improvement of capital accessibility also broadens the development opportunities of acting SMEs, the guaranteeing of financing activities and provision of small loans will be an important instrument also for acting enterprises.

The development of opportunities for Estonian investors plays an important role in the case of investments of SMEs, in order to direct the knowledge and free capital of investors to enterprises with growth potential. In addition, the mediation of contacts and the enlivening of cooperation between local entrepreneurs and potential foreign investors will be provided.

To satisfy the need for additional capital in the time of fast growth of enterprises the entrepreneurs will be offered the opportunity of own capital loan, in the case of which the own capital of the enterprises will be conditionally increased to enable buying of the loan products from private sector that used to be previously unattainable. Complementary measures will be provided by the Estonian Development Fund (Eesti Arengufond), i.e. the national venture capital fund that undertakes early-phase own capital investments into starting knowledge- and technology-intensive enterprises.

For sustainable development of enterprise, it will be necessary to increase entrepreneurship, innovation and creativity in society. In addition to developing entrepreneurial training, contributions will be made to the development of entrepreneurial culture by raising the awareness and knowledge

in the private and public sector and among the general public about entrepreneurship and innovation. For that purpose, the shaping of creative activity environment will be supported, awareness of entrepreneurs, creative people and consumers will be raised, and the educational system will be changed to become more creative and entrepreneurship developing. Strong entrepreneurial culture is characterized by entrepreneurs' sense of social responsibility and aspiration for sustainable development.

Increasing internationalisation of enterprises

One of the main activities to support internationalisation of enterprises will be supporting export marketing and the related activities. Since in the case of foreign markets the marketing activity is encumbered compared to the local market, the provision of marketing-related assistance to beginning exporters will be planned in this field in order to make the entry to target country markets easier and less risky for inexperienced entrepreneurs.

In the case of already acting exporter or internationalising entrepreneur, support will be provided for preparation of the export plan and entry to foreign markets based on the adopted plans through export or expansion to foreign country through investments. Entrepreneurs will also be supported in finding cheaper inputs and resources, their appraisal in Estonian and entry to new markets. Participation in foreign mess events will also be supported.

Internationalisation of Estonian enterprises and their participation in international R&D and innovation networks will be supported through different schemes. Thereat an important role will be played by the development of knowledge and skills, convergence and intermediation of information, marketing schemes, guaranteeing export and investment of Estonian enterprises and formation of the image of Estonia.

Under the activities aimed at development of clusters, cooperation between enterprises in the foreign market participation will be supported: sharing of orders, formation of export consortiums and joint marketing.

Developing the tourism sector

In addition to the above, special measures will be taken for developing the tourism sector by taking advantage of the existing favourable external environmental conditions. The reputation of Estonia as a travel target will be increased in the neighbouring as well as in more distant countries, incl. in cooperation with other Baltic Sea states, which enables directing new target groups to visit Estonia and thereby expand the customer portfolio, including on account of more demanding and solvent customer groups. Moreover, for better use of the country's tourism potential, it will be important to pay attention to better dissemination of tourism information, improving the quality of tourism services and diversifying them, including the development of tourism products promoting longer stays of tourists in Estonia and visits during low-demand seasons. In developing tourism, utilization of the whole tourism-related potential of Estonia will be supported.

Links with other priorities

In a broader sense, this priority influences, through the human factor, higher education and sectoral R&D, all other priorities, being itself positively affected by the development of R&D and economic environment occurring within the framework of other priorities. For instance, the elaboration and introduction of environment-friendly (i.e. preventing pollution and mitigating its impact) technologies, and the influence on improved medical services and life quality ensuing from the application of R&D achievements and new technologies.

Educated and active people

The R&D capacity the development of enterprises and the growth of productivity in a country depend, on the one hand, on the knowledge and skills of its people and, on the other, on their state of health. Hence, there is a connection of this priority and the raising the people's level of education

and activeness. The activities performed within the framework of the priority under discussion will create prerequisites for achieving the objectives prioritised by well-educated and active people, contributing to training of top specialists and thereby influencing through higher education the quality of the whole education system.
Additionally, the development of entrepreneurship will establish prerequisites for improving employment and creating quality jobs allowing people to adequately use their learnt skills.
Actions towards the development of knowledge-based economy bring in their wake serious restructuring – but only if a sufficient amount of qualified workforce is available. Flexibility of education and possibilities for retraining in diminishing economic branches are also important for structural changes. Therefore sufficient support to educational and employment activities within the priority of educated and active Estonian nation is crucially important for ensuring a smooth course of turning into a society with a knowledge-based economy.
Often the R&D and higher education cannot be set apart: the study and research labs are situated under the same roof and lecturers to research. The higher education is based on science and science receives its aftergrowth from the universities. Thus, the mutual connection and interdependence between higher education and research is strong and therefore the support to universities qualifies under both the current and the educated and active nation priorities. The borderline has been drawn between them to avoid duplication of activities and financing as follows: the current priority includes activities that are connected to R&D, incl. studies for obtaining a science degree. Supporting higher education outside the R&D-related activities falls under the domain of the first priority of the NSRF.

Better connection opportunities
In view of sustainable development of entrepreneurship, an important prerequisite includes the existence of adequate transport- and ICT networks, which is closely related to the priority of better connectivity opportunities.

Integral and balanced development of regions
The development of entrepreneurship is a basis for integrated and balanced development, as well as for diversified development opportunities for people as it creates jobs, increases incomes and poses new challenges to both private individuals and whole regions. In Estonia, the development of enterprises and productivity growth in all regions should be balanced out as well as possible.
At the same time, supporting the development of regions will create further prerequisites for achieving the targets of entrepreneurship development and productivity growth since within its framework the operational environment of enterprises gets improved and the conditions for increasing local employment are created.
Since the tourism sector often plays a remarkable role in the business life of the regions, then activities addressing its development directly contribute to regional development. Investments made by the local governments to the tourism environment will in turn allow increasing the competitiveness of tourism in the country as a whole.

Sustainable use of environment
Reduction of the load on the environment contributes to the realisation of this priority in general terms by improving the conditions for entrepreneurship. At the same time, the increase of innovativeness and general R&D capability entails a potential for further reduction of the environmental load – i.e. when more environment-friendly technologies are worked out, investments are made in their application, etc.

Coherence with Community Strategic Guidelines

The capability of R&D and innovativeness of enterprises and increase in productivity are connected with the general Community guidelines "Promoting Knowledge And Innovation In the Name Of Economic Growth" and "More And Better Jobs".

To promote knowledge and innovation, the guidelines stipulate increase in the growth and quality of R&D investments as well as acceleration of the building up of R&D system capability, incl. development of the research infrastructure and human capital in areas with a high potential for

growth. Achievement of all these objectives is supported within the framework of the current priority through:

- the creation and maintenance of state-of-the-art and competitive R&D environment for the preparation of scientists and top specialists;
- increase in the quality and efficiency of R&D;
- the development of human capital to ensure the sustainability and further development of R&D, higher education and innovation, to increase the international competitive ability of the enterprise sector, and to meet the needs of knowledge-based society.

At a more detailed level, this priority is connected with guidelines 2.2 "To Favour Innovation And Increase Entrepreneurship" primarily as far as offering support services of entrepreneurship, facilitating entrepreneurship, and promoting the development and creation of new enterprises are concerned. The priority is also connected with guideline 2.4."To Improve Access to Capital" and accordingly addresses the improvement of financing opportunities of both starting and operating enterprises, paying thereat more attention to finding alternatives to direct supports. Additionally, the priority has connections with guideline 3.2 "To Increase Adaptability of Employees and Enterprises, and Flexibility of the Labour Market" and with a recommendation in the latter to facilitate small and medium-sized enterprises' access to external consultations and counselling opportunities with the aim to increase employees' participation in training and re-qualification.

Coherence with Estonian Action Plan for Growth and Jobs 2005-2007

This priority is very strongly related to objectives 4 and 5 set by the "Action Plan for Economic Growth and Employment", or "Increasing the Quality of Research and Development as well as the Capacity For Innovation, Growth, And Long-Term International Competitiveness" and "The Development of a Business Environment Favouring Enterprise and Entrepreneurship" (especially the part concerning innovation and entrepreneurship). In both the period 2004-2006 and 2007-2013 the means of structural funds are important financing sources for the measures of entrepreneurship and innovation policies. The lines of action concerning R&D in this priority largely coincide with measure 4.1 of the action plan "Ensuring sustainability and improving the quality of research and development" and measure 4.2 "Developing human capital necessary for R&D advancement and long-term international competitiveness of the enterprise sector". The lines of action included in the priority of enterprise development and productivity growth coincide to a large degree with measure 4.3 "Ensuring access to capital for start-ups and enterprises with a great potential for growth", measure 4.4 "Promoting value added and increase in productivity, supporting enterprises in entering foreign markets and investing in the development of new technologies, products and services", measure 5.1 "Promoting entrepreneurial culture with the goal of increasing enterprises' activity and innovation", and partly also with measure 5.3 "Developing infrastructure supporting the growth of competitiveness. Thus, this priority greatly supports the achievement of the Lisbon action plan objectives.

Coherence with Estonian Rural Strategy 2007-2013 and Estonian Fisheries Strategy 2007-2013

The main objective of the 3rd priority axis of the Estonian Rural Strategy 2007-2013 is to enliven and diversify the entrepreneurship of rural areas that the current priority supports in a significant degree. Under NSRF priority, the renewal of technologies, facilitating of the introduction of new products to the market and advancing the cooperation with scientific institutions will be supported for developing entrepreneurship. Activation of clustering has another significant positive impact on the regional entrepreneurship, facilitating also the development of several acting enterprises in the same area. The difference between the strategies is that Estonian Rural Strategy orients the economic diversification support to micro-enterprises in rural areas; the current priority's actions are aimed at larger enterprises and mostly SMEs. By focusing at different but related target groups, the strategies offer complementary actions.

Improvement of access to capital supports the growth of productivity and competitiveness in enterprises, which are currently a problem due to their low level in both the agricultural and fisheries

sector. Under the 1st priority of Rural Strategy, support is given to investments of agricultural and forestry enterprises into production technology for increasing productivity and created added value. In addition, support will in the future be provided for conducting applied research and product development in agricultural enterprises. Similar support measures will be available for fisheries and aquaculture enterprises under the Fisheries Strategy. The NSRF and rural and fisheries strategies are mutually complementary to each other in these respects, as the NSRF actions are aimed at enterprises from other sectors than agriculture, forestry, fisheries or aquaculture.

The main objective of the 1st priority axis of the Rural Strategy is to increase the competitiveness of agricultural and forestry sectors. The activities of the current priority also support this objective. The planned thematic R&D programmes will support overcoming of the problem identified in the rural strategy – that the agricultural and forestry enterprises pay very little attention to adoption of new technologies and product development that has mainly been caused by the limitedness of financial resources in the face of obligatory investments. The need to attend the constantly renewing market requirements presumes more attention to development of new products and technologies and closer cooperation with R&D institutions also in the agricultural and forestry sector – and the thematic R&D programmes will support this.

It has been emphasized in the Rural Strategy that there are not enough international-level trained specialists. There are people who know the specifics of the sector and have the experience in the labour market, but the situation gets complicated when highly qualified specialists are needed. Since the aim is to also support the development of applied higher education infrastructure (usually located in smaller towns-counties), this activity creates more favourable conditions to education of specialists.

Coherence with other EU and domestic policies and strategic documents

The focus of this priority and the planned activities comply with the "Estonian Entrepreneurship Policy 2007-2013", "Research and Development And Innovation Strategy 2007-2013" and "Tourism Development Plan 2007-2013". which are being elaborated. When working out the entrepreneurship policy, the common trends in the development of entrepreneurship in EU described in the Lisbon strategy, in the European Charter for Small Enterprises, and the European Union's entrepreneurship policy that is presently being formulated.

The current priority is very closely tied to the Estonian R&D and innovation strategy 2007-2013 "Knowledge-based Estonia II". To advance knowledge and innovation the development of competitive infrastructure and orientation to strengthening of Estonian needs and opportunities is foreseen. Increasing the competitiveness of the economy is also one of the main objectives the current strategy. According to "Knowledge-based Estonia II" the state support will be directed based on the following principles:

- preferring the internationally competitive high-quality R&D;
- creating prerequisites for orientation to R&D and innovation growth and efficiency, especially the creation of sustainable community of scientists and entrepreneurs and attractive environment to R&D and technological renewal;
- preferring innovation projects creating great economic added value.

The achievement of the main objective of strategy will be supported under the current priority through focused support of priority fields (key technologies, energy, healthcare, etc), to achieve the internationally competitive level of R&D in these fields.

The priority is guided by all the relevant documents handling EU-scale R&D and economic growth problems since the target cross-cutting the latter is to increase the global competitiveness of the EU economy primarily through a substantial purposeful development of R&D and the innovation system, and by increasing the corresponding R&D investments and developing the entrepreneurial environment. The priority foresees solving the most acute problems facing the Estonian R&D system in the context of the EU in its integration with the European Research Area. The priority has as its objective the strengthening of internationally competitive high-quality R&D and creating

conditions for Estonian integration to Baltic Sea and EU science area and the relevant activities are planned under the priority. At the same time, the objectives of the 7th Framework Programme and prioritised fields support the here-by priority of NSRF, giving opportunity to create internationally competitive science potential in the prioritised fields.

3.6. Priority 3: Better connection opportunities

Main activities

Developing transport infrastructure

To achieve a more efficient transport system that better meets the needs of users, it will be primarily important to develop the transport infrastructure in international as well as national directions. Thereat increasing penetrability capacity as well as improving the quality of infrastructure will improve the connection possibilities. Although several important activities in the development of infrastructure concern road and railway directions, also the ports, waterways and airports should be developed in order to ensure the cooperation between different means of transport and smooth operation of the transport chains. Same time the investments into the basic infrastructure do not ensure a transportation system that functions without faults. Therefore, advancement of the general national transport organization system (incl. planning, implementation and surveillance) and improvement of technical capacity will be undertaken.

Development of the road infrastructure is focused at systematic improvement of the quality of roads, considering forecasts of traffic flows and economical analysis, regional needs and transport policy of EU. Development of directions belonging to the Trans-European network (TEN-T) will be continued, paying attention to connecting the transport corridors and ensuring their operation and eliminating the bottlenecks of the transport network (e.g. solving the problem of bordercrossing in Narva by construction of a new bridge). Development of support and side roads and local roads will receive supplementary attention.

Railway infrastructure and its carrying capacity will be developed for continuation of the transit sector development, advancement of railway traffic and reduction of the traffic load on roads. In long-term perspective it will be important to establish fast railroad connection to Middle-Europe that would enable to enliven also the development of North-South traffic of goods. Thus, it will be very important to participate in development projects of Rail Baltica in co-operation with Latvia, Lithuania Poland and Finland.

Developments of maritime infrastructure will be focused in the reconstruction of ports in state ownership, which has to guarantee environmentally friendly, safe and secure activity of the ports. In marital transport, the ports belonging to TEN-T networks will be developed and necessary investments made to upkeep the waterways in marine transport, which helps the development of Motorways of the Sea, and close-marital transport. Development of the servicing transport infrastructure will first and foremost focus on improving winter navigation at Gulf of Finland and Gulf of Pärnu.

Great attention will be paid with respect to the investments into infrastructure to improving the safety, recovering the traffic hazardous spots and improvement of traffic culture.

Modernisation of the aviation infrastructure – the airports serviced by the State – has to respond to the forecasts of air-traffic demand and will be undertaken respectively. Among else, the regional airports will be developed.

Developing public transport and light traffic

The state will take a much more active attitude in development of public transport and light traffic, which allows to reduce the traffic and environmental load of transport and improve access to working places as well as public services. The main emphasis will be on the renewal of existing infrastructure of public transport (especially public transport operating on electricity) and light traffic or creation of supplementary solutions (incl. infrastructure servicing travellers). The availability of information on public transport will be improved as well and the investments into rolling stock of public transport supported. These investments will make public transport more environmentally

friendly and enable to meet better the needs of users. Thereat the public transport arrangement system will be developed and the nation-wide public transportation management structure created.

Improvement of connections between the regions includes the development of all transport modes for conveyance of passangers – development of bus transport, development of railway connections. The aim will be to guarantee accessibility to everyday activity and services, including the needs of handicapped people.

According the results of the forthcoming analysis on possibilities for creating a fixed link to Saaremaa, the decision about bridge construction will be made. In maritime and air transport it is necessary to guarantee connection operations by ferry between mainland and small islands of western-Estonia. Also regular air connection has to be operated between the small islands in the winter period when maritime connections are difficult.

Railway transport enables to service the biggest passanger flows, providing the best quality and travel speed. In some regions, the train service would be the most reasonable option of public transport and will be preferentially developed accordingly. In longer perspective there will be a need to develop a well-functioning passenger railroad connection between the biggest Estonian cities.

Increasing spread and use of Internet and developing public sector e-services

To increase access to the information society opportunities, contribution will be made to the increasing of Internet spread and use with the primary aim of improving the access to Internet for people living in rural areas and for the less-included target groups. Beside the development of infrastructure opportunities, attention will be paid also to the improvement of information society related awareness, skills and motivation - considering there-by the needs of different target groups.

To facilitate communication with the public sector, the e-services of public sector will be continuously developed, including in horizontal direction and cooperation with the private sector. Beside creation of effective e-services that are user-friendly, it will be important to use the possibilities of information technology for arranging processes electronically. It reduces the need to communicate with different departments and enables eliminating the unnecessary bureaucratic "services".

Links with other priorities

Integral and balanced development of regions
Life quality in different areas or integrated and balanced development of areas directly depends on the existence of connection opportunities and accessibility. Activities planned in the framework of the priority of integral and balanced development of regions such as developing of sustainable urban transport and improving the availability of public transport outside of bigger urban areas, as well as improving the quality of internet connections complement the activities of the current priority.

Increase in the R&D capacity and in the innovativeness and productivity of enterprises
Since the improvement of transport and communication opportunities enables the enterprises to enhance their activities this priority remarkably helps to increase the productivity in enterprises.

Educated and active people
Multitude of working and studying possibilities depends on connection possibilities since in case of good connection with other regions or places helps to mitigate structural labour market problems and create prerequisites for improvement of people's knowledge and qualification. The latter is specially supported by use of Internet-based learning (e-learning) opportunities in all educational levels and in life long learning and general increasing of Internet use (Internet is more and more important general medium of knowledge intermediation). At the same time the possibilities how not to reduce the availability of services to those who do not use e-services through facilitating the integrated and balanced development of regions.

Capability, skill and will to be involved in information society incl. use the supplied services depends on the content and quality as well as the economic possibilities.
The increasing traffic safety involved with development of transport networks results in reduction of the number of people getting killed and injured in traffic accidents, which has expected positive impact on the health indicators of population.

Sustainable use of environment
Aspects related to environment should be considered in implementing these activities not to contribute to increasing the environmental load and thereby towards the worsening if the health of the people. Good Internet connection and multitude and availability of e-services at the same time diminish the transport needs and reduce pressure for the increase in environmental load. The latter is also supported by use and development of environmentally friendly means of transport primarily public transport and light traffic.

Coherence with Community Strategic Guidelines

This priority complies with Community guidelines Expand And Improve Transport Infrastructure (1.1) and Promote Information Society For All (2.3).

The transport guideline recommends that all member states contribute to the improvement of connection with other Europe and further national areas, to development of secondary connections, railway infrastructure and improvement of water transport, development of environmentally friendly transport systems (incl. public transport development, increasing traffic safety, etc). Relevant activities are all covered with this policy. The main emphasis of the priority is on ensuring the functioning of transportation corridors without faults, employing there-by the Cohesion Fund resources. It is also planned to develop secondary connections (of regional importance) and railway infrastructure in public interest (considering especially passenger freight traffic and living environment). In longer perspective the preparation of Rail Baltica will be important. Development of rail electrical transport, but also of public transport and light traffic means that the aim is to move towards more environment-friendly transportation system. From the point of view of development of sea magistrals and close maritime transport the investments into ports and yearlong navigation are important. Activities related to favouring the use of alternative motor fuels are further included under the environment related priority.

From information society content the priority covers increasing availability of ICT infrastructure and services especially in market failure regions and also development if ICT services.

The improvement of access is further related to territorial dimension in respect of the competitiveness of towns as well as economic diversification of rural areas. It also allows creating conditions for cross-border cooperation incl. specially the relevant communication.

Coherence with Estonian Action Plan for Growth and Jobs 2005-2007

The activities of the priority constitute a follow-up to the Action Plan measure no. 5.3 "Developing infrastructure supportive to business competitiveness" and support the objective no. 5: "The development of a business environment favourable to enterprise and entrepreneurship". The mentioned measure foresaw developing of public sector infrastructure, introducing ICT systems in the public sector and ensuring attainability of fast Internet connection across Estonia. These activities are continued under this priority, the activities of the Action Plan primarily of a preparatory nature.

Coherence with Estonian Rural Strategy 2007-2013 and Estonian Fisheries Strategy 2007-2013

The current priority is linked first and foremost to the 3rd priority axis of the Rural Strategy – "Quality of life in rural areas and diversification of rural economy". The development of transport connections in order to enable the swift movement of goods and persons to target destinations and

regional hubs through a network of main transport corridors contribute directly to the achievement of this objective. The falling quality of life and the decrease of customer base has forced entrepreneurs to terminate their operations in rural areas, contributing to the deterioration of the living environment and the decrease of rural population, as rural inhabitants have to travel long distances to access basic and support services. The situation is worsened by poor public transport facilities and deficiencies in the quality of road infrastructure. All these factors will be addressed under the current priority.

The objective of the Estonian Fisheries Strategy 2007-2013 will be to ensure preservation of the diverse socio-economic structure and rise of life quality in the fisheries-related regions. The objective of developing the Fisheries Strategy regions and the respective priorities are consequently linked to development of transport infrastructure of regional importance. Among else, the development of (small) ports infrastructure planned under this priority in order to support the swift movement of goods and persons to target destinations. These activities will not overlap with Fisheries Strategy activities, under which support will be directed only for the investments of fisheries production and processing infrastructure of fishing ports.

Planned activities of this priority targeted at increasing the share of electronic public services and improving their quality are creating better business environment also for agriculture, forestry and fisheries sectors. Activities targeted at increasing participation in information society are also giving better opportunities for people from rural and fisheries-dependent areas to participate in working or communal life, there-by contributing to advancing the working and living conditions in more relevant areas.

Coherence with other EU and domestic policies and strategic documents

Determination of policies and planning of activities within its framework is based on Estonian Transport Development Plan 2007-2013, specially its objectives Development of infrastructure, Safety and security and Public transport. It is also based on Public Transport Development Programme 2007-2010 which describes the public transport field development activities in more detail, and Information Society Development Plan 2007-2010 – more specifically objectives and measures of improvement of ICT opportunities, enhancement of state administration and effective provision of public services and increasing social inclusion addressing the enterprises.

Upon preparation of these domestic strategies the EU Transportation Policy White Book, the EU information society strategy i2010, the information society section of the competitiveness and innovation framework programme and guidelines of EU-wide networks have been taken into account. Hence, the current priority is also in correspondence to these EU policies and strategies.

3.7. Priority 4: Sustainable use of environment

Main activities

Development of water use and protection and waste management

The main objectives and indicator levels concerning reduction of environmental load and safety of population health are to a great deal determined by the obligations stipulated in the accession agreement to implement the relevant EU Directives. The meeting of the requirements of the Directives will be among essential tasks for Estonia in the area of implementing Community-wide socio-economic approach, the precondition for which will be large-scale investments from the public as well as private sector in Estonia during the transitional period laid down in the accession agreement.

Water supply systems will be built and renovated for guaranteeing quality drinking water for the people.[22] With the aim to improve the state of water bodies, including coastal sea, water protection facilities will be built or renovated (waste water collection systems and purifiers).[23] In some cases it will be necessary to sanitise the water bodies, mitigate the impact of pollution or improve the biological state of the water bodies.

With the aim to improve waste treatment the collection, sorting and reuse as well as recycling of waste will be improved; landfills not meeting relevant requirements will be closed and new landfills and waste treatment places meeting the environmental requirements will be constructed.[24] Remediation of residues generated by oil shale industry and energy production will be of high importance in the liquidation of residual waste, in addition to remediation of smaller polluted sites.

Protection of external air quality and development of energy towards greater environmental friendliness

The meeting of obligations related to improvement of external air quality will be ensured by the state primarily through facilitation of the technological upgrading of energy production enterprises and creating of incentives (e.g. via pollution permits, pollution charges) for the provision of sufficient treatment facilities.[25] The main share of investments necessary for protection of external air quality will be born by the enterprises. According to the Kyoto Protocol, transnational trading with emissions quota of greenhouse gases and Joint Implementation Projects will be used for performing the obligations taken with the aim to prevent climate change. In case of market failure investment support may be given to application of environmental friendly production technologies and electricity and heat co-production and purchase of purification equipment

For promoting energy saving, the plan is to support modernisation of remote heating and energy saving facilities by energy consumers. Support will be provided to auditing and reconstruction of blockhouses that features 70% of Estonian housing stock currently. The structure of Estonian electricity production capacity will be rationalised to cover the top load and reduce concentration of electricity production. For this, the establishment of co-production capacity of electricity and heating will be supported in location where there is heating load, as well as the establishment of production equipment and top load capacity employing renewable energy sources for production of electricity.

[22] In accordance with the Drinking Water Directive 98/83/EEC, drinking water meeting the requirements should be guaranteed to settlements with over 50 person equivalent by the end of 2013.

[23] In accordance with the Urban Waste Water Directive 91/271/EEC, the collection and appropriate treatment of urban waste water should be guaranteed in waste water collection areas with over 2000 person equivalent by the end of 2010. According to the Water Policy Framework Directive 2000/60/EC, all water bodies in Estonia should have good water quality by 2015.

[24] According to the Landfill Directive 1999/31/EC, waste should not be deposited at landfills not meeting the environmental requirements from 2009 on.

[25] According to the Large-scale Combustion Plants Directive 2001/80/EC, by 2015 the air pollution agents' emissions of large combustion plants should be brought into compliance with the limit values established with the Directive.

To increase the share of renewable energy sources in heat production, to ensure heating supply to heating consumers and do it with the lowest price possible and to sustainably use energy resources, the renovation of smaller central heating networks and establishment or transition of boiler plants to renewable energy sources will be supported. For employing new technologies and diversifying the energy resources used in Estonia, the building of cost-efficient diffused demonstration equipment that supports energy production will be supported in both electricity and heating production – to give in near future the push to utilizing them without investment support. For ensuring the use of alternative fuels and hydrogen in transport sector, the widespread information and communication activation and presenting of positive working solutions (e.g. the transition of some transportation enterprise to alternative fuel or hydrogen) will be used.

Preserving biological diversity; developing environmental awareness, education and monitoring; developing readiness for environmental hazards and developing environmental supervision

At promoting the preservation of biodiversity, the main focus will be on the preparation and implementation of management plans of sites belonging to the NATURA 2000 network as well as of protected areas and of endangered species.[26] It is also planned to finance the construction and improvement/upgrading of nature protection infrastructure related to protected areas.

Environmental policy can only be successful when it relies on the high level of public environmental awareness – the latter in turn depends on the environmental education. With the aim to promote environmental awareness and education, the development of environmental education centres will be primarily supported proceeding from the concept of education supporting sustainable development. The national, local and enterprise-level environmental monitoring system will be developed in order to guarantee more diversified and higher quality data on the state of the environment. To increase the security of people and prevent the health risks, activities aimed to increase preparedness for environmental hazards will be financed, early detection and warning systems will be developed and equipment of rescue structures will be upgraded. The technical equipment of environmental supervision will be upgraded with the primary aim to make the protection of fish stock more efficient.

Links with other priorities

Integral and balanced development of regions

Reduction of the environmental load will facilitate increase of the competitiveness of regions, a prerequisite of which is lack of hazardous environmental impacts in the regions. This will be achieved by construction or renovating of environment infrastructure, remediation of residual waste or by other means. Preserved biological diversity is an economic resource of increasing importance and essential precondition for spending healthy and aesthetically enjoyable spare time by creating opportunities for tourism and recreation related economic activity. In the area of creating preconditions for tourism and recreation management, complementarity and avoiding of overlap between the provision of support to environmental and tourism investments will be achieved at the level of Operational Programme.

Increase in the R&D capacity and in the innovativeness and productivity of enterprises

Reduction of the environmental load in general will help to implement this priority by improving conditions for entrepreneurship, especially in the sites where residual pollution and potential health hazards will be remedied. At the same time, increase in the general innovation and R&D capacity will imply the potential for further reduction of environmental load – if environmentally sound technologies will be developed, investments will be made into their implementation, etc.

26 Nõukogu linnudirektiiv (79/409/EMÜ) ja loodusdirektiiv (92/43/EMÜ)

Educated and active people

One of the inevitable preconditions in maintaining the health of population is lack of hazardous environmental impacts on the life and health of people, which will be achieved via prevention and minimisation of environmental health risks. As concerns activities supported with the aim to promote environmental education and awareness, mutual complementarity and avoiding of overlap with other educational activities to be supported will be achieved at the level of the Operational Programme.

Better connection opportunities

Reduction of environmental load will *inter alia* depend on the implementation of activities aimed at creating better connectivity opportunities since reduction of transport needs and increasing the importance of environmentally sustainable means of transport, public transport and light traffic are the main trends in the development of transport infrastructure that directly contribute to the reduction of environmental load. Improvement of good Internet connection and the diversity and availability of e-services will in parallel reduce the need for transport and reduce pressure for the increase in environmental load.

Coherence with Community Strategic Guidelines

This priority is in compliance with the general guideline "Make Europe and its regions more attractive places to invest and work"

Within the framework of the priority, attention will be paid to the strengthening of synergy between environmental protection and economic growth (guideline 1.2). The planned activities will primarily be connected with the task defined in the guidelines to make essential investments into infrastructure for achieving compliance with the EU environmental acquis related to water protection, waste prevention as well as the protection of air and nature and species. In parallel to that the performance of obligations of the EU stipulated with the Kyoto protocol will be supported and risk prevention measures will be taken with the aim to improve the management of natural resources, make better use of specific scientific research, through improved use of information and communication technology, and more innovative public administration just as it has been also determined in the guidelines.

Reduction of intensity of energy use will also be dealt with under the current priority in accordance with guideline 3.1. Projects aiming at improvement of the use of energy sources, promotion of development patterns based on the low level of energy use, wider use of renewable energy sources, and development of alternative energy production technologies (e.g. wind, solar and biomass energy) will be supported.

Coherence with Estonian Action Plan for Growth and Jobs 2005-2007

Due to the urging need to achieve fast convergence to EU in the field of environmental protection and secure the synergy between economic growth and environmental protection, the solving of environmental issues holds an important place in the implementation of the Lisbon Strategy. The current priority of more sustainable use of environment is connected with objective 6 of the Estonian Action Plan for Growth and Jobs 2005-2007: Strengthening the synergy between environmental protection and growth. Through activities planned for the implementation of this priority, measures targeted to the aforementioned objective of the action plan will also be implemented. The main emphasis is on the implementation of measure 6.2 "Reducing the pollution load and ensuring sustainable use of natural resources" of the plan which includes the construction of environmental infrastructure facilities, organizing reduction and remediation of residual pollution, and co-financing and facilitation of energy saving. Nature conservation activities promoting environmental awareness planned to be implemented under this priority comply at the same time with the action plan measure 6.1 "Promotion of environmental awareness".

In addition to the above, this priority is interrelated with objective 3 of the Action Plan. Direction of fiscal policy to improve the economic growth and employment by reducing the environmental load",

and specifically with measure 3.1 Reorganization of the tax system with increasing emphasis on the taxation of consumption and exploitation of environment compared to labour taxation".

In addition, this priority is related to Objective 3: Orientation of fiscal policy at improvement of economic growth and the situation at the labour market. The activities designed to implement environmental load will also contribute to the meeting of objectives defined in measure 3.1 "review of the taxation system from labour to consumption and use of the environment.

Coherence with Estonian Rural Strategy 2007-2013 and Estonian Fisheries Strategy 2007-2013

The priority of sustainable use of the environment is mutually complementary with the Estonian Rural Strategy 2007-2013. The Rural Strategy supports the sustainable use of forests by agricultural and forestry entrepreneurs, preservation of natural diversity, water and soil protection, mitigating of climate change and air pollution and sustainable use of plant protection substances.

Under the 1st axis of Rural Strategy, "Increasing the competitiveness of agricultural and fisheries sectors" attention will be paid to increasing the environmental friendliness of production and the application of renewable energy sources. Among else promotion of bio fuel production and self-produced bio-fuel utilization by the agricultural producers will be supported, complementing the NSRF activities in the field of enhancing the use of renewable energy sources for central heating and electricity production – i.e. for using the bio fuel production output.

The activities of the 2nd axis of Rural Strategy, "Preservation of the agricultural environment and areas" help to preserve the biological diversity and traditional agricultural landscapes (Natura 2000) and ensure water quality. It is planned to support the maintenance of semi natural habitats of a high environmental protection value that are located in agricultural lands and compensate the reduction of forestry profits occurring due to application of protection measures in the forests located in Natura 2000 preservation areas. There-by, the Rural Strategy contributes to current NSRF priority's activities in the aim of maintaining natural diversity that does not usually expand beyond the protected areas. Rural Strategy also makes its contribution to the fulfilment of EU water directive requirements, providing support for avoiding diffused agricultural pollution, especially in nitrate-sensitive areas. Such activities complement the current strategy that is targeted mainly to reducing the pollution originating from human settlements and residue pockets.

Implementation of the Fisheries Strategy 2007-2013 is directly aimed at ensuring the sustainable use of fisheries stock, primarily by means of adjusting the fishing load and employment of more selective fishing equipment. Implementation of the current NSRF priority contributes to improving the situation of fisheries stock by the reduction of pollution load of water bodies and sanitation of running water bodies that are important to migratory fish.

Coherence with other EU and domestic policies and strategic documents

The focus and planned activities of this priority are in compliance with the Estonian Environmental Strategy until 2010. This Environmental Strategy is based on the Lisbon strategy, EU Sustainable Development Strategy, EU 6th Environmental Action Plan, as well as on the EU environmental directives and obligations taken by Estonia with the accession agreement. The new national Environmental Strategy until 2030 is currently under preparation. The considerations and viewpoints formed in the development of this Strategy have been considered at the planning of content of this priority.

The priority is also in compliance with the Long-term National Development Plan of the Fuel and Energy Sector for 2005-2015, on the basis of which the Estonian Electrical Engineering Development Plan 2005-2015 has been developed. The Fuel and Energy Sector Development Plan is based on the EU energy and environmental directives and obligations taken by Estonia with the accession agreement. The Focus and planned activities of the priority are also in compliance with the Energy Saving Programme.

The objectives and types of actions planned to be implemented under this priority in the area of capacity for extinguishing marine pollution are in line with the framework of the Baltic Sea Action Plan of the Convention on the Protection of the Marine Environment of the Baltic Sea (HELCOM) that is under preparation.

3.8. Priority 5: Integral and balanced development of regions

In this document, all regional and local territorial units of different level and functionality are regarded as 'regions' – localities, rural municipalities, regions between rural municipalities, counties, NUTS 3 areas, rural areas, urban areas, nature-specific regions, culture-specific regions, labour force areas, etc.

Regional balance and development of regions are influenced by all national sector policies that create directions and conditions for making investments and providing services in the regions – these are handled by other priorities of this strategy. At the same time, a big part of activities belong to the competence of local governments deriving from the national administrative division of labour. Their performance should accordingly be supported in order to direct national development. Hence, within the framework of this priority, investments and development activities proceeding primarily from local and regional development documents and in compliance with national development plans and documents, take the first place. The subjects of activity will be primarily the local government units and non-profit organisations that contribute to development of the local living environment and other organisations, but also the state institutions that possess the objects essential for regional development in the range related to those objects.

Main activities

Within the below-mentioned activity complexes, an essential focus will be on the adaptation of objects and areas left outside the economic activities and public use to new applications and the liquidation of less valuable objects with the objective of increasing cultural and environmental value and safety.

Increasing the growth local development potential and its better internal utilisation and turning the regions into more attractive life, investment and visiting areas

To achieve regional development, it will be important to guarantee the maximum use of the existing local development potential and resources. Hence, activities directed to maximum use of internal resources of different regions will be essential.

Improvement of the operational environment of enterprises (incl. public infrastructure investments essential from the standpoint of entrepreneurship) and creation of conditions for promoting local employment, also promotion and application of traditional know-how in economic development will be supported. To diminish the causes for inexpedient work-related commuting and the circumstances favouring emigration from the region, support will be provided to boost communal activity and entrepreneurship and local offering of self-determination opportunities.

The role of county centres and local centres having the respective potential will be supported in realisation of regional development opportunities. For this, creation and strengthening of regional innovation systems and development of regional competence centres and entrepreneurial networks will be supported, using the potential of locally placed higher education institutions and branches of scientific institution, vocational training centres and other institutions. Also, more favourable conditions will be created for entrepreneurship in the form of industrial parks and logistic centres.

Preservation and raising the value of cultural, milieu and natural heritage will be supported under this priority as well and also the development of tourism spots and their additional utilisation in the economic development since they are currently under-utilised. Raising their value involves giving modern function to the objects, improving access to them and their observability and supplying the modern support infrastructure. It allows to utilise the natural and cultural heritage as a specific regional strength in a sustainable way and there-by to support through development of "integrated tourism" the regional economic activity. Importance will be given to activities supporting to accentuate the distinguishing qualities of the region, preservation and promotion of local identity and

the folk cultural heritage. Development of cultural objects of national importance from the standpoint of tourism will be additionally supported within this priority.

In order to improve the competitiveness of different regions and reduce the time-space distances, it will be important to develop the information technological infrastructure in the regions.

Improving availability of public services

To improve the availability of public services in rural areas, it will be necessary to improve the complex of local public services (kindergartens, comprehensive schools, family doctor centres, community centres, hobby centres, sports buildings and facilities, social welfare homes, social homes, and other). Infrastructure investments that enable to solve the most critical bottlenecks of region-specific development will be supported. Considering the need to bring the infrastructure objects into conformity with the changed circumstances (primarily the diminishing number of users), the poly-functionalisation of the existing infrastructure will be favoured and especially in more remote or border areas - i.e. concentration of different public services into an integral complex. Improving the availability of transport is a necessary precondition for improving the availability of public services.

Specific attention will be paid to county centres and several local centres as growth centres. The aim in the area of public services will be to create a situation where-by in each Estonian count there would be a possibility to access high quality and diverse public services in an all-Estonian sense

Integrated activities for the development of urban space and increasing the international competitiveness of urban regions

To ensure sustainability of regional development, it will be important to support integrated activities that will be targeted at developing the urban space. The extensive growth of cities in the last years has brought about the need to modernise the public urban space, especially in Tallinn but also in Tartu, Pärnu and Narva (cities with more than 40,000 residents). There is a lot of unused potential in regenerating the shore-areas that have not been modernly developed and the production areas that are unsuitable for urban space. New solutions will be also needed in transportation arrangements, especially with regard to developing public transport and light traffic opportunities. The social problems are vital in the cities as well. Thus, the complex restructuring of Kohtla-Järve urban areas and the creation of various types of rehabilitation centres in other towns will be supported.

Attention will be additionally paid to improving the functional connections between urban centres and their hinterland and the prevention and solving of urban sprawl related problems. Due to fast population growth and new productive investments that have been made, there is a need to develop transportation systems and light traffic connections in the suburban areas. There is a need for new public infrastructure objects (kindergartens, children facilities) and also the new integral centres in several places as well. Suburban public recreation areas need additional support. The purposeful planning of suburban areas will be enhanced, also cooperation between cities and the municipalities from their hinterlands.

In case of both activity complexes, the existence of relevant development plans and cooperation between the relevant local government units will be important. Preparation of plans of public space development will be supported.

Links with other priorities

Better connection opportunities
Within the framework of this priority, the activities planned for development of urban space and better functional connection of centres and hinterland support the development of connectivity opportunities – primarily in respect of public transport and pedestrian and cycle lanes. Also the development of local e-services and increasing availability of Internet in market failure regions contributes there in development of public services.

Better connection opportunities in turn create preconditions for the development of regions (including on the islands), including for development of local enterprises and increasing the employment in peripheries, since they increase the accessibility and connectivity with other regions.

Educated and active people

Within the framework of this priority guaranteeing availability of primary public services and poly-functionalising of public infrastructure objects supports development of education, health care and social area. The state of health of population can be also improved in respect of improving local sports and recreational opportunities through which supplementary possibilities are created in regions for more diversified health preventive activities and improvement of health of people. The same activities also support creation of better development opportunities for children and advancement of youth work.

Capable people having income and existence of jobs and individual development opportunities in turn are essential prerequisites of every region.

Sustainable use of environment

Mostly the same subjects connect the priority with the priority of reducing the environmental load as implementation of those activities takes place together. Activities addressing conservation of natural heritage and increasing its value proceed from the principles of sustainable development. Supporting activities planned to deal with the problems of urban sprawl in turn helps to guarantee better state of the environment, diversity of nature and landscapes in close to urban areas and helps to mitigate the harmful environmental load caused by the construction works and growth of traffic intensity involved with urban sprawl in suburban areas.

Investments made in the field of environment to reducing the environmental load and diversification of natural environment increase at the same time the attractiveness of the areas as places for living and visiting. While creating prerequisites for tourism and recreational economy the additionality and avoidance of overlapping on the level of Operational Programme between environmental and tourism investments are guaranteed.

Increase in the R&D capacity and in the innovativeness and productivity of enterprises

The activities of the priority of the development of regions create further prerequisites for achievement of development of enterprises and productivity growth since activities of public nature are supported in aim to improve the operational environment of enterprises and create conditions for increasing local employment, promotion and implementation of traditional know-how to the service of economic growth. The value increasing and implementation of regional cultural heritage and increasing local activity is also supported. Thereby the growth of tourism field competitiveness is supported in the country as a whole.

The growth of innovation and productivity of regional enterprises enables to speed up entrepreneurship and increase employment in relevant areas that improves the attractiveness of the regions. Since the tourism sector has a remarkable role in the economic life of regions, then activities addressing it directly contribute to regional development.

Coherence with Community Strategic Guidelines

Territorial dimension is separately handled in Community Strategic Guidelines. It also handles the contribution of urban areas to economic growth and employment and economic diversification of rural areas.

The guidelines recommend supporting the development of entrepreneurship, local employment and sustainable communities in the country as well as in town and provision of services to people, concerning the demographic structure. It is also recommended to implement measures for improvement and development for integrated objectives of physical living environment and preservation of historical-cultural heritage; take steps to improve economic conditions in rural areas and stop emigration and to avoid slowing down the potential of economic growth by the uneven development.

Activities planned within the framework of this priority for improvement of the operational environment of the enterprises and creation of conditions for promotion of employment, preservation of cultural and natural values and their implementation in economic development comply with the described guidelines. This also complies with Community guideline about the need to increase synergy between environmental protection and economic growth (guideline 2.1). Activities for development of urban space are also planned within the framework of this priority.

The planned activities for better functional connection of centres and their hinterland and controlling urban sprawl and promotion of communal activity and entrepreneurship follow the recommendations of the Community to concentrate on promotion of physical accessibility in facilitating regional competitiveness and employment, improvement of access to several social and technological infrastructures and favouring of sustainable communities

Contribution to improvement of spatial availability of primary public services of high quality enables this priority to make investments to education and health infrastructure and ensure availability of communication and information technology especially in further and rural areas (guidelines 2.3, 3.3 and 3.5).

Coherence with Estonian Action Plan for Growth and Jobs 2005-2007

The priority of integral and balanced development of regions contributes to achievement of plan's objective 5 "The development of a business environment favourable to enterprise and entrepreneurship". The set of planned activities for improvement of operational environment of enterprises and creation of conditions for promotion of local employment is primarily addressing the promotion of infrastructure favouring competitiveness of local enterprises and labour force and development of support services. Differently from activities directly addressing the development of entrepreneurship, the activities within the framework of this priority help to support the development of infrastructures and support systems owned by the public sector, which is one of the prerequisites for development of entrepreneurial environment.

The priority also complies with the objective of the action plan about strengthening synergy between environmental protection and economic growth (objective 6) contributed to by activities addressing value increasing of natural heritage and its sustainable implementation in economic development.

Coherence with Estonian Rural Strategy 2007-2013 and Estonian Fisheries Strategy 2007-2013

The Rural Strategy is similar to the current strategy aimed at balancing regional development by both rising the life standard and quality in rural areas as well as developing, diversifying and increasing the competitiveness of agricultural and other rural economy in order to reduce the factors that encourage emigration from rural areas. Under the Rural Strategy measures, among else also the regionally differentiated support levels are used in aiming for balancing regional development (incl. higher support measures for less favourable areas and municipalities that do not border county centres).

According to the Rural Strategy, new and lasting solutions have to be found in the conditions of sparse population in the rural areas to make the services available over time (e.g. finding mobile solution for delivery and supply of goods and services, application of modern technology, developing multifunctional service centres due to pressure of sparse population, etc). Similar to that, under the current priority the improvement of access to different public service is favoured (incl. concentrating various public services into unitary complex and diversifying the functionalities of existing infrastructure, considering the need to make the infrastructure objects conform to changed conditions of reducing user level in several areas with decreasing population).

Under the 3rd axis of the Rural Strategy the focus is on developing regional business environment primarily by developing and diversifying the activities of micro-enterprises from rural areas through respective assistance aimed at enterprises. Non-agricultural production based on local resources,

rural tourism, handicraft and service entrepreneurship is preferred which is directly related to enhancing the life-quality in rural areas. The current priority sets as the objective to support these activities through supporting the public sector activities and infrastructure investments into developing the local business environment – aimed at better utilization of internal development potential and making various regions into more favourable living, investment and visiting areas. The same objective is supported by the foreseen creation and strengthening of regional innovation systems and activities aimed at developing regional entrepreneurial networks and competence centres.

The public and non-governmental sector activities aimed at developing the local visiting environment (through preservation and raising the value of cultural, milieu and natural heritage will be supported under this priority as well and also the development of tourism spots and their additional utilisation in the economic development since they are currently under-utilised) are mutually complementary to activities of the 3rd axis of Rural Strategy. These are aimed at sustainable use and introduction to local particularities, incl. natural and cultural heritage; developing the community activities; improving local employment; emphasizing place identity; and valuing local peculiarities and traditions.

Also, private sector investments are encouraged under the Rural Strategy axes 1st and 3rd into utilizing the abandoned agricultural facilities and buildings that carry agricultural production legacy (incl. manor houses) in the production or service processes, helping there-by to create employment opportunities. Under this NSRF priority, unutilised or fully abandoned facilities that the public sector or nobody holds will be sanitized.

The NSRF priority of integrated and balanced development of regions is directed in addition to increasing availability of public services and local business environment also to mutual relations between rural and urban areas. This will be supported by developing high-quality public services in centres, developing integrate tourism, creating additional employment opportunities and supporting special planning activities.

The Fisheries Strategy 2007-2013 has as its objective to ensure the preservation of diverse socio-economic structure and rise in living standards in the areas dependent on fisheries, which again directly correlates to the current priority in its essence. The implementation of Fisheries Strategy will be contributing to balancing development in Estonia.

Under the Fisheries Strategy, the protection of natural and architectural legacy of coastal villages and tourism activities will be encouraged and supported. Thus, the Strategy provides added value to the NSRF approach to balanced regional development, as development of integrated tourism will be supported – through supporting the implementation of related integrated local strategies. Support under this priority will be for investments outside these integrated strategies and also mostly for other beneficiaries (local municipalities). Additional synergy arises in the field of local employment. The Fisheries Strategy supports diversification of regional employment and increase of labour market flexibility by offering to fishermen additional retraining and supplementary training possibilities under the conditions when their number in many coastal areas exceeds the catching opportunities responding to fish stock. This contributes to creation of jobs outside the fisheries sector in the fisheries dependent areas. The current NSRF priority additionally supports development of local entrepreneurial environment and employment via public sector oriented measures.

Coherence with other EU and domestic policies and strategic documents

The focus of this priority and planned activities are in accordance and comply with general concept of developing state settlement system and more directly with the objective "ensuring people's basic necessities in every place in Estonia" of national planning document "Estonia 2010".

The priority is also in direct concordance with Estonian Regional Development Strategy 2005-2015 and oriented to implementation of its objectives. Regional development strategy has been one basis in planning the lines of action of the priority. All sets of the supportive activities of the priority are in

line with the headline objective of the strategy "to ensure sustainable development of all regions by relying on the development prerequisites and peculiarities inside the regions and development of qualitative competitiveness of capital region and other town regions". Planned specific activities are primarily in line with the lines of action planned for implementation of sub-objectives of the strategy. "Better ensuring of basic necessities in all places in Estonia" and "Ensuring enduring competitiveness of regions."

3.9. Priority 6: Higher administrative capacity

The administrative capacity is treated here as the administrative capacity of state or central government institutions, local municipalities as well as non-governmental organisations (incl. social partners) and various interest groups; and the priority features actions for all the respective target groups.

Main activities

Increasing the strategic planning and management capacity in the public sector and non-governmental organizations and cooperation between them

Policy-making and implementation that aims to ensure the competitive and sustainable development of the state necessitates that the decisions will be balanced and proceed from national objectives and that will be made by involving different stakeholders, analysing the previous practices, evaluating possible impacts of the planned measures and monitoring the implementation of policies. For that purpose the strengthening of strategic planning capacity and developing of the cooperation between institutions will be needed in the public sector in the name of which:

- the strategic planning system in public sector institutions will be analysed and improved;
- projects aimed at addressing the increasing of planning capacity will be supported (implementation of organisational changes, development of common methodologies and guidelines, development of strategic planning skills of officials, etc);
- a strategic planning network between ministries will be developed and the development of sectoral policy making networks (involving also social partners) for both planning and implementation monitoring and evaluation will be supported;
- conducting studies and analysis (incl. policy evaluations) by scientists will be supported;
- conducting studies and analysis (incl. policy evaluations) necessary for designing or renewing the development plans and other strategic documents in the priority areas will be supported.

The methodologies of quality management and management by results will be utilised more actively to provide public services of a higher quality; more attention paid to creating innovative administrative and management solutions in the different sectors; and the capacity of local municipalities and non-profit organisations (incl. social partners) considerably raised in the making of strategic decisions.

Raising analytical capacity in the fields that are important for national competitiveness and sustainability of development will be supported in order to improve the quality and efficiency of policy design (conducting of surveys and evaluations, development of guidelines, etc) - a "fund of wise decisions" will be established. The central sectors determined in the domestic Governmental Decree of Strategic Planning will be priority fields (national competitiveness, sustainable development, national security).

To increase the analytical capacity on strategic planning issues outside the administration, support will be given to scientists from universities and research institutions for conducting studies and analyses in the fields of priority from national development perspective. In addition to specific studies and analyses, measures will be planned to raise the capacity of independent political analysis and strengthening of the cooperation networks.

For increasing public management capacity as well as the administrative capacity of social partners, there is need to strengthen the involvement of social partners, activate their capacity building and support more effective participating in policy formation and implementation processes and encourage them to contribute more into monitoring process. This will be done by supporting relevant training, participating in workgroups and networks and supporting international cooperation.

The county development centres also support capacity growth and involvement of partners as well as development of cooperation at local level by various information provision and counselling services. These centres have been created to ensure equable capacity in regional terms in the public developmental activity and project management spheres. They provide relevant training and counselling support to local authorities and NGOs, arrange cooperation and coordination activities and networks between local stakeholders and institutions. The county development centres will provide information on regional level also on the structural assistance at large.

For supporting the integration of sustainable development into the context of public administration, it is important to promote the introduction of the principles of environmental management and environmental management systems within the framework of developing strategic management capacity. Related information and training activities will be provided for the public administration.

Developing better regulation

Development of better regulation will be of key importance for the improvement of the entrepreneurial environment. Therefore, the legislative environment will be evaluated and the legislation improved (first and foremost by increasing the comprehensibility and transparency of the legislative acts) in the areas that affect competitiveness the most – for which the analysis of legislation and projects of legislative simplification will be supported. There is a need to create the system for evaluating the impacts of adopted legislation (incl. social, economic and environmental impacts) and expand the legislative implementation practice analysis. For the creation of impact assessment system, first the foundational principles and methodologies need to be developed. The relevant analysis and other projects aimed at improving the quality of legislative acts will be supported. In addition, the relevant analytical skills and capacity of public servants and partners will be enhanced for carrying out successfully the other planned activities. The establishment of a competence centre for creators of legislation will be supported.

During the evaluation of economic impacts, the administrative burden of legislative acts will be measured among other things. For measuring and reducing the administrative burden, the relevant measurement principles and methods need to developed as well. Thereafter the evaluation system will be developed and implemented and analysis for measuring administrative capacity and projects aimed at reducing it will be supported.

Improving the knowledge and skills of state and local authorities and NGOs

Since management and accountability in Estonian public service are decentralised, the financial resources necessary for training of public servants should in big part remain in the separate institutional budgets. Centrally planned and managed training and development activities should concentrate on those activities that will be horizontally applicable across the public service and support the development of administrative capacity and management quality of the state as a whole.

Therefore, it is planned to support the training and development activities of public sector employees (incl. local municipality employees) in the priority public administration development areas, providing training also for employees of the non-profit organisations (incl. social partners) and politicians. The training of trainers who will be specialized in training public sector employees is likewise foreseen. In addition, it will be important to increase the management capacity of the state and local government authorities and in NGOs (incl. social partners) institutions through training on organisational development. The top managers of Estonian public service will be trained based on the competence model of the top managers and regular evaluations of competence. Planning and managing developmental activities is better done centrally, thus having a horizontal impact on the public servants as a target group and supporting the development of the management quality of the state as a whole.

The officials and employees of state institutions and local municipality institutions will be supported through stipend programmes in acquiring professional knowledge in EU member states or elsewhere

abroad. In addition, the training of non-profit sector (NGOs and especially social partners) will be undertaken to enhance their participation in the policy-making processes.

There is also the need ensure sustainable development of the public sector training system, for which support will be given for developing the training programmes and training the trainers' staff in the central institution for public sector training. In order to evaluate the training need and to plan horizontal training studies on training need will be carried out, which will help to map the actual needs across the various target groups, and would in turn provide an important input for the planning of developmental activities.

Links with other priorities

Increasing administrative capacity supports the implementation of all the other priorities, because the administrative capacity of implementers determines the efficiency and effectiveness of actions.

Under the previous sectoral priorities there are various sector-, activity- or institution-specific administrative capacity building measures planned to improve the efficiency of implementation of planned activities. These measures strongly support the increase in the general administrative capacity in the state besides their more narrowly oriented primary goals and effects.

Educated and active people

Administrative capacity is directly dependent on the general education level of people: their skills and knowledge. Thus, the more educated the nation, the greater the potential capacity of all parties to plan and implement state activities. General education and training is supported under the priority of educated and active nation; under this priority the additional activities aimed directly at raising the skills and knowledge level of officials and representatives of state institutions, local municipalities and non-profit sector are carried out. Same time, the latter also increases the educational level of people and helps along in the achievement of the objectives under educated and active people priority.

Coherence with Community Strategic Guidelines

Community Strategic Guidelines also point out the necessity to strengthen the administrative capacity and especially the improvement of the competence of public sector employees. Under the general guideline of "More and better jobs", it is recommended for the member states to invest into improvement of public sector effectiveness and the development of programmes addressing public sector employees that comply with new competence requirements. In the Guidelines, it is recommended to support investments into the development of policy-making and implementation skills of public sector employees and other parties on the central government, local municipalities and third sector level. These kinds of activities are contained in the here-by priority.

Coherence with Estonian Action Plan for Growth and Jobs 2005-2007

Increasing administrative capacity is also connected to the Estonian Action Plan for Growth and Jobs 2005-2007, being one of the prerequisites for reaching the objectives stated in it. In the Action Plan, the measure 5.2 "Developing legislative framework favourable to enterprise and entrepreneurship" features activities for developing better regulation (simplification of legislation and reduction of administrative burden). The current priority is connected to measure 4.2 "Developing human capital necessary for R&D advancement and long-term international competitiveness of the enterprise sector" by increasing the analytical capacity outside the public sector and the strategic planning capacity in Estonia at large. Measure 7.4 "Developing a supplementary training and re-education system in line with the principles of lifelong learning" focuses on the further training and development of the sustainable training system, which the current priority supports with respect to developing the training institution for training public sector employees.

Coherence with Estonian Rural Strategy 2007-2013 and Estonian Fisheries Strategy 2007-2013

This priority axis supports the achievement of general objectives of "Estonian Rural Strategy 2007-2013" and "Estonian Fisheries Strategy 2007-2013" in two ways. First, under the several activities of the priority the administrative capacity of public authorities (at both state and local level) for both the policy making and implementation will be supported – incl. for the authorities in charge of rural development and fisheries policy (incl. Common Agricultural Policy and Common Fisheries Policy implementation). Second, several activities of the axis are aimed at increasing the administrative capacity and involvement of social partners and other NGOs related to policy making and implementation – incl. the NGOs involved in agricultural and fisheries sector. These NGOs will not include local activity groups supported under the LEADER axis of the Rural Strategy and the objectives of sustainable development of fisheries areas under the Estonian Fisheries Strategy. There support can be given to local activity groups for the establishment and implementation of local (sustainable) development strategies of their respective areas. Among else, support for related capacity development and networking will be available. This will contribute to the objectives of this NSRF priority, by contributing to the capacity and general involvement of civil society in Estonia.

Coherence with other EU and domestic policies and strategic documents

The Governmental citizen initiative support strategy 2007-2010 (KATS) takes the direction towards persistent and efficient involvement of civil society organisations into the decision-making processes. The activities of this priority that aim to increase capacity of non-governmental organisations directly support the empowering of civil society and their greater involvement in the decision-making processes.

Administrative capacity and the need for integrated development activities are treated in the Estonian Regional Development Strategy 2005-2015 as an important component for the continuation of development in regions. The latter is built on making the local municipalities' planning activities more efficient and increasing social involvement.

4. ESTONIAN EXPERIENCE FROM THE PROGRAMMING PERIOD 2004-2006

Estonia has had the opportunity to use approximately 800 mln euros of structural assistance in the programming period of 2004-2006. Although the first programming period has been short, we have already received a remarkable amount of experience and learned lessons from it. These lessons and existing experience have been tried to take into consideration as much as possible during the preparations for the new programming period of 2007-2013 in order to make the best possible choices for utilizing EU structural assistance for implementing the strategy presented in the last chapter and for composing the relevant implementation system.

It is not yet appropriate or possible to present an evaluation of the general results and impact of the implementation of "National Development Plan for the Implementation of Structural Funds 2004-2006" (NDP), because only a share of its funds have been paid out to date. Therefore, the results of the impact analysis would not at this point be very trustworthy at this point, since sufficient time has not passed yet after the activities took place. Nevertheless, several evaluations have been performed based on which it is possible to draw first conclusions about the success and lessons of EU structural funds' impact and use in Estonia.[27]

The sectoral evaluations that have been carried out by this point have though pointed to some needs for changing the focus of activities in the new programming period. These needs have partially risen out of the shifts that have occurred in the economic environment during 2004-2006. Unemployment has decreased due to strong economic growth – lack of qualified labour has become the growing constraint on growth. Thus, more attention needs to be paid to training and retraining as well as to integrating the inactive population to the labour market. The evaluators have additionally pointed out that although the links between NDP and the "Action Plan for Growth and Jobs 2005-2007" are generally sufficient, the activities funded from European Social Fund could be more concentrated, focus more on knowledge-based economy and the most important fields from the perspective of labour market, and have more concrete indicators. A proposal has been made to promote to a greater extent the cooperation of educational institutions in reducing youth unemployment and keep supporting the development of vocational education and practical training opportunities. Directing structural assistance for increasing innovation capacity of enterprises and innovation volume in the economy and for enhancing cooperation between enterprises and R&D institutions is also continuously considered to be very important. These remarks of evaluators about the content of supported activities and setting the objectives have constituted an important guideline and input in planning the use for 2007-13 EU structural assistance.

Estonian experience has shown that the prior choice of a relatively centralized and structurally simple implementation has been a right one – Estonia has been in 2004-2006 one of the fastest users of structural assistance among the new Member-States of the EU. Simplicity and the small size of the system have enabled to involve all important stakeholders directly into programming, preparations of the legal framework and development of the necessary procedures. Therefore, the structure of the system has facilitated cooperation and coordination, as well as smooth and fast introduction and

[27] 27 The following evaluations have been carried out in 2004-2006:
Elaboration of the ex-post evaluation methodology and the ex-post evaluation of the part "Start-up support to beginning entrepreneurs" of measure 2.1 (2005);
Evaluation of NDP 2004-2006 implementation: the monitoring system and indicators (2005;
Evaluation of the implementation of measure 1.1 "Educational system supporting the flexibility and employability of the labour force and providing lifelong learning for all" (2006);
The macro-economic impact of NDP 2004-2006 in Estonia: mid-term evaluation (2006);
Evaluation of NDP priority 1 "Human resource development" (2006);
Evaluation of NDP implementation and its effectiveness (2006);
Evaluation of NDP composition, implementation and criteria for project choice (2006);
Evaluation of state aid measures' impact on entrepreneurship (2006).

implementation of changes upon need. The simplicity of the structure of implementation system should be kept in the new period.

However, the speed of using assistance is not the only indicator that is important for evaluating the success of programme implementation. The main evaluations that have been carried out by end of 2006 have focused on analysing the structure of the implementation system and evaluating the effectiveness of monitoring systems. As their result, it can be pointed out that although the monitoring and control systems function sufficiently, it is still possible to increase the efficiency of the system – the implementation schemes and procedures need to be simplified and adjusted to cope with the need to administer sharply increasing volumes of support in 2007-2013. Among else, in 2006 the procedures for handling the European Social Fund payment requests were reshaped in order to guide controlling activity towards more risky projects and expenditure more efficiently and cope with rising administrative burden. More efficient use of resources in payment management allows conjointly strengthening the controls performed during on-the-spot examination. The evaluations have shown that to date the fragmentation of auditing of expenditure documents has restrained increasing efficiency in performing the audits. To remedy that, the audit function will be decentralised in 2007-2013 – primarily the Ministry of Finance will perform the audits foreseen and required by EU legislative acts.

In addition to the analysis concerning management and control systems the monitoring system has been studied and the quality of used objectives and indicators evaluated. The results of a relevant survey of 2006 show that although the NPD is logically composed and the measures have indeed been defined in relation to problems, weaknesses and threats, there have been problems with reaching the objectives of measures and measuring the progress in relation to the target levels. These hardships have partially risen due to too ambitiously stated initial targets and objectives. On the other hand, the attainment of objectives is sometimes hard to measure due to the fact that objectives have been defined in a non-measurable way or the indicators are not sufficiently well linked to the objectives. Thus, considerably more attention has been paid in 2007-2013 preparations to formulating the objectives more clearly and specifically in the Operational Programmes and the relevant formulation of indicators in both the NSRF as well as the Operational Programmes.

For the attainment of objectives to be possible, the targets defined at the programme level also need to be reflected in the implementation phase, especially in the project selection and evaluation processes. This renders possible to secure more firmly that financing would be allocated to projects that contribute to the achievement of objectives the most. In addition, more attention needs to be paid to making sure that assistance goes first and foremost to projects that are cost-effective and create the most added value. These kinds of projects facilitate achievement of programme goals. The evaluators have pointed out as a problem regarding the 2004-2006 programming period that the project selection criteria are not always unambiguously comprehensible. This makes it occasionally difficult for both the applicants and the evaluators to interpret them – this difficulty also applies to horizontal indicators (e.g. sustainability and cost-effectiveness). Although the combining of objectives, indicators and selection criteria continues to be a complicated task in 2007-2013 period, it constitutes a crucial prerequisite for successful implementation of Operational Programmes and constant attention will be paid to this aspect in both the planning and implementation phases.

In addition to hardships related to setting objectives, the synergy created in the implementation of structural assistance could be greater. . There are many projects that involve numerous participants – it shows that applicants are able to involve upon need partners with similar interest to the solving of common problems. Yet, there are currently relatively few beneficiaries who have received mutually complementing grants from several different sources (funds, measures) and the projects of applicants are usually independent of each other. Considering that in 2007-2013 one aspect of the overall objective of using structural funds is to increase the regional balance of national development and that all funded activities take place in the territory of some county or municipality, it is especially important to facilitate and enhance cooperation in the local level in order to achieve greater synergy between activities. This requires steps to develop strategic planning and management capacity on both regional (local municipality) level as well as the central government level between the various

policies. High-quality strategies and development plans (both local and sectoral) enable to use funds more effectively and coherently in line with achieving the general strategic objectives.

A conclusion was drawn as a result of the evaluation of priority 1 of NDP 2004-2006 systematic developing of the areas that are of high priority to the state requires the public sector to play a more important role in initiating and implementing of projects – but also in directing the support. The experience of other Member States has proved that the attainment of objectives is guaranteed in the most efficient way when resources are directed to long-term activities of a programmatic nature. Thus, it is important to implement such nation-wide and centrally coordinated projects and programmes that would allow to carry out among else also activities of regional importance. For this reason it has been planned to use more than before the provision of funds through centrally formulated investment plans and programmes. This enables to determine the objectives of funds' utilization more effectively and also use the funds more purposefully. Same time, a longer-than-before programming period allows to direct the funds more efficiently also in the case of project-based implementation. During the implementation of longer-term projects the beneficiary has greater opportunity to learn from experience; it is also possible to direct the projects towards achieving strategic objectives that have a longer time horizon.

One lesson supported by the experience of very many Member States is that publicity, information and counselling activities are key success factors in the implementation of structural assistance. The success and speed of assistance use depends to a great extent on the project preparation and implementation capabilities, knowledge and skills of beneficiaries. The interest in structural assistance has been big – the positive experience has been that all applicant groups have been relatively active. Currently, there are basically no fields or sectors where the need and willingness to apply for structural assistance does not exist. In addition to publicity and information activities, counselling and training of the applicants and beneficiaries needs more emphasis both in the application and implementation phases. This would enable to improve both the quality of applications as well as the effectiveness of project implementation. The evaluators have also emphasized the need to proved high-quality counselling services and recommended to further develop the unitary counselling centre system that has been based on county development centres and currently already exists (providing counselling support to applicants and beneficiaries).

5. USING EU STRUCTURAL ASSISTANCE IN 2007-2013: THE OPERATIONAL PROGRAMMES UNDER THE CONVERGENCE OBJECTIVE

EU structural assistance will be used to a major extent for implementing the presented strategy through the actions envisaged under priorities. The exact activities to be funded with EU co-financing are determined in the Operational Programmes that have been drafted based on this current NSRF. Here-by, in this chapter an overview of their contents, i.e. the specific plans for using EU structural assistance and the mechanisms to implement them are presented.

The activities that will not receive EU structural assistance financing in 2007-2013 but are part of the current strategy will be undertaken with other budgetary funds of the state.

Since Estonia falls under the Convergence objective regions in 2007-2013, Cohesion Fund will be available for Estonia in addition to European Social Fund and European Regional Development Fund. The Government of the Republic has prepared three Operational Programmes under this objective for involving EU structural assistance in the realisation of the present strategy. The programmes determine more closely the activities to be funded from structural assistance and their financial volume, including the use of various funds.

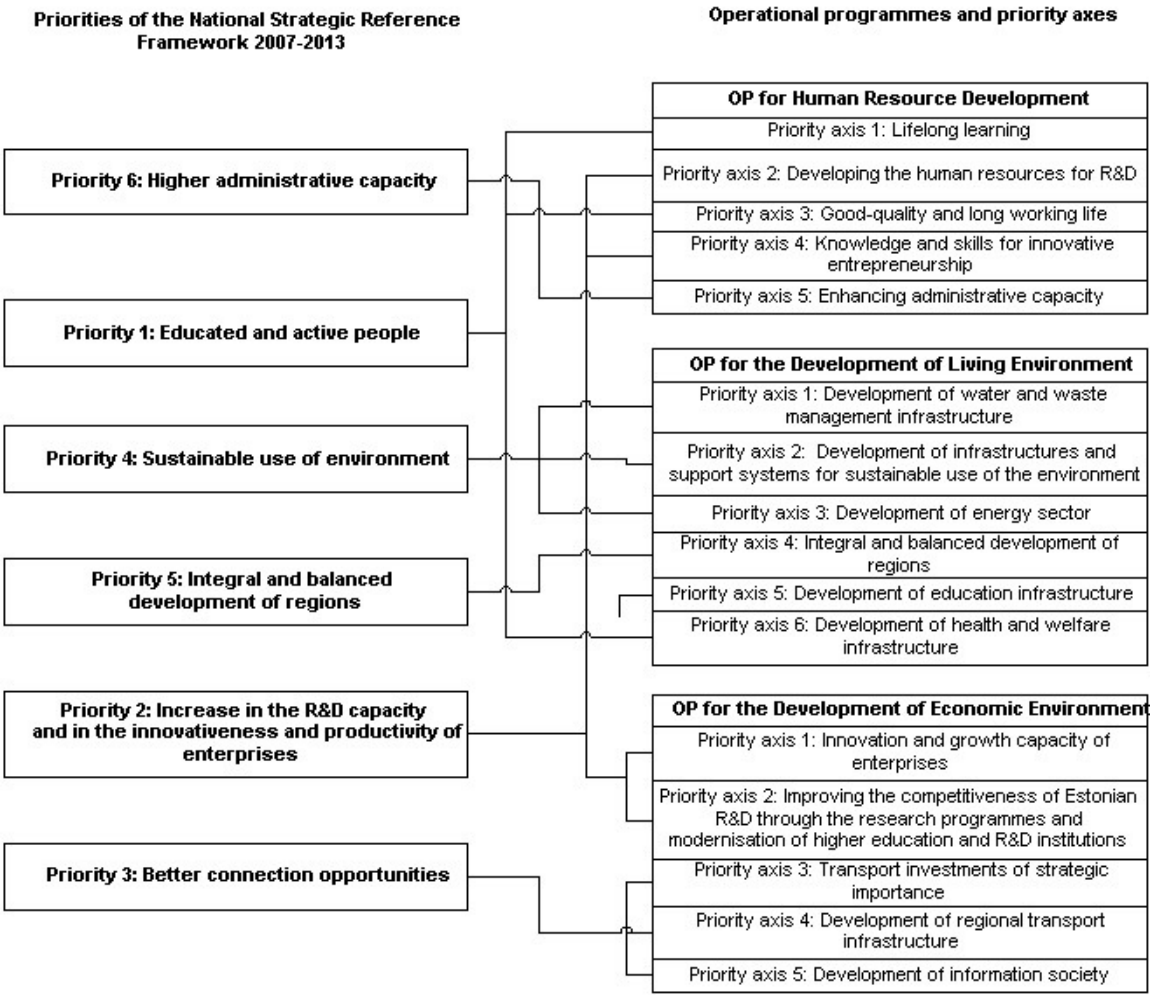
The Estonian Operational Programmes are:

- Operational Programme for Human Resource Development (contains all activities funded from European Social Fund);
- Operational Programme for the Development of Living Environment (contains relevant activities funded from European Regional Development Fund and Cohesion Fund);
- Operational Programme for the Development of Economic Environment (contains the relevant activities funded from European Regional Development Fund and Cohesion Fund)

There are no regional Operational Programmes prepared in Estonia, because in terms of EU cohesion policy Estonia in its entirety constitutes a single unitary target area or region.

The linkages and correspondence between the NSRF and OPs is presented on Figure 26.

Figure 26. The linkages between National Strategic Reference Framework 2007-2013 and the Operational Programmes under the Convergence objective



The process of drafting the Operational Programmes started in March 2006 and the first versions were completed in June 2006. The Estonian Government adopted the drafts of programmes for presenting them to the Commission for official negotiations in January 2007, after which negotiations between Estonia and Commission were held. Based on the negotiations, the Operational Programmes were revised and resubmitted to Commission for approval in June 2007.

5.1. Selecting the activities to be financed from Structural Funds within Operational Programmes

The present National Strategic Reference Framework 2007-2013 presents the general strategic objectives and priorities for developing the policy areas and sectors that are eligible for EU structural assistance in the years 2007-2013. The strategy covers under the priorities all activities that are potentially eligible for EU funding as well as the activities that are aimed to the same objectives and/or connected to them via additionality criteria, regardless of whether these activities are financed from EU structural assistance or not (i.e. from national budgetary resources alone).

The Operational Programmes feature descriptions of the indicative activities that have been included in them, showing which activities of the NSRF are intended to be financed from EU structural assistance. For determining these activities and deciding which other activites to fund from national source or other foreign financing sources; the following strategic considerations or criteria were followed:

- **Conformity to eligibility provisions of EC regulations** that determine the conditions for using structural assistance in 2007-2013 – all the activities to be financed within OPs have to have a clear eligibility foundation in the EC regulations (especially the regulations of all the funds);

- **Avoiding duplication and ensuring synergy of different financial instruments while ensuring** that on national (NSRF) level, as a result **a thorough and coherent policy response** will be provided to solving the problems of the state or sector – **EU structural assistance funding will be directed only to activities where it would have more added value than other budgetary instruments**, especially national budgetary funding, while ensuring that in the end the problems will be thoroughly tackled by an effective combination of instruments. The added value has been considered in terms of:
  - **Providing an amplifying synergetic effect to the use of other instruments** in the sectors that are important for achieving the NSRF objective of fast and sustainable development of Estonia, **by funding new or main developmental activities.**
    For example, in education, health, social protection, energy, transportation, R&D and administrative capacity sectors the EU structural funds are to be used in a focused manner for addressing anew the most critical current and perspective developmental bottlenecks to provide a critical mass response and impetus for sectoral and relatedly national development (solving the problems). In parallel, national and other foreign funds will be used in these sectors for funding the baseline or ongoing needs and activities – e.g. for basic and general education; for general healthcare and social welfare services provision; for development of energy networks and supply; for construction and renovation of the national roads; for funding higher education studies and operating costs of R&D as well as more fundamental research; for developing the working conditions, structures and motivation mechanisms of public administration.
    This approach would lead the way to more efficient use of public financing both in short- and long-term. The short-term effect will be the increase the overall positive impact of public funding. The long-term effect will be the freeing after Structural Funds interventions possibly some of the relevant always limited national resources from these sectors for other purposes when the sectors would reach a better developmental state.
  - **Providing funding to sectors that are crucial for achieving the NSRF objective** of fast and sustainable development of Estonia **but for which no or only little other funding has been and will be available**.
    In this case, the added value is essentially manifested in the 'pure' additionality of EU financing to these sectors. E.g. in entrepreneurship and innovation as well as information society development fields, the Structural Funds have been and will be the main source of financing required activities as only very limited financing related to the common state functions in these areas (e.g. competition policy and business legislation implementation) will come from other, mainly national sources. Same time, these fields are at the core of developing national economic competitiveness, and therefore of high importance for both the Estonian state and EU at large (see also below on EU added value).
  - **The potential to make use of other, non-financial benefits related to the use of Structural Funds** that would not be available when using other sources.
    The Structural Funds in often-cases bring along the opportunities for developmental spillovers into other areas beyond the immediate financing target, for importing the innovative experience of other countries in the governance of policy or implementation of instruments, for creating networks and cooperation and supporting experimentation, etc. The sectors of labour policy, regional development and environment are among the most prevalent examples of areas where such additional benefits for creating networks, importing social innovation and affecting sectors beyond immediate support are the most evident.

- **Achieving added value for the Community (EU) as a whole** – EU structural assistance is aimed in 2007-2013 at increasing the cohesion of the enlarged EU. Thus, the activities to be financed in each Member State, incl. Estonia, from Structural Funds have to clearly provide

added value for the EU as a whole in terms of their contribution to increased cohesion of the Community. When selecting Estonian NSRF activities for structural assistance financing within Operational Programmes, this criteria was carefully followed and the added value considered in terms of:

- **Focusing as much as possible the EU** funding in terms of sectors as well as the activities within them **based on the added value considerations described above**, while supporting a balanced development approach that NSRF has foreseen.
  This enables to achieve the maximum possible impact of EU funding on national development (as opposed to the thinly and widely spread financing approach), and there-by the increase socio-economic convergence of Estonia to the EU which is EU's strategic interest.
- **Focusing the EU funding in Estonia clearly and strongly to the EU common policy priorities of the growth and jobs agenda and the cohesion policy agenda of the Community Strategic Guidelines**.
  This means that the EU headline policies meant to be common for the whole EU will be advanced and put into direct action combined with national perspectives and needs via the use EU common funds. Out of this, developmental benefits for the whole EU will emerge.
  Altogether an indicative 81% of total Estonian structural assistance financing in 2007-2013 will be directed to activities corresponding to the Estonian Action Plan for Growth and Jobs 2005-2007 that is the national vehicle of EU growth and jobs agenda (see also Annex 3 of NSRF). Among else, the several core areas of growth and jobs agenda (entrepreneurship and innovation, R&D, information society development) will be among the areas that will feature the fastest funding growth in annual average terms in Estonia compared to 2004-2006 programming period.
  Same time, the Operational Programmes financing has been directed to integrally and thoroughly cover all the pillars of cohesion policy based on the Community Strategic Guidelines. A coherent approach will be taken to make Estonia a more attractive place to invest and work in (through transportation, environmental, energy measures), to improve the knowledge and innovation for growth in Estonia (through R&D, innovation, entrepreneurship and ICT measures), and to ensure more and better jobs (through education, labour policy, health, social protection and administrative capacity measures). In addition, the underlying regional dimension running through all these pillars will be comprehensively addressed through both the regional development measures and the support of other sectoral measures for balancing the territorial development (i.e. by integrating the regional dimension into all Operational Programmes and priority axes – see also Section 5.3 below).
- **Providing structural assistance for bringing different areas of Europe together through networks and connections**.
  First and foremost in this regard, support will be given for the development of transportation system and infrastructure and information society for creating links with rest of Europe; the promotion of internationalisation (especially in R&D – knowledge networks, and entrepreneurship – European value chains); developing joint energy saving and environmental protection activities (environmental issues do not have borders); and providing networking means for the public administration and civil society to develop to European 'standards' of policy making and implementation and contribute more and better to policy activities at the European level.
- **Providing structural assistance for advancing towards the adoption of EU requirements (regulations) and standards** in sectors and activities that are relevant to achieving the NSRF headline objective.
  The most prominent example here is the environmental sector, where EU financing for water and waste management investments will help to partially meet the requirements of environmental directives that Estonia has to correspond to. This allows for the common EU policy to be more and better applied across the EU.
- **Achieving visibility of EU support** – visibility of EU interventions contributes to promoting European cohesion by bringing the EU closer to the national and local communities, there-by 'connecting' them more to Europe.

For achieving visibility of EU support the main prerequisite is to have sufficient focusing of EU interventions through co-financing from Structural Funds so that there is a noticeable critical mass response being provided to tackling the developmental problems – taking into account same time both the public financing and EU-level added value considerations described above. Focusing the EU structural funds on solving the major developmental bottlenecks in either human resource or living or economic environment development spheres, will by itself provide for visibility of EU support. The visibility will be consistently supported by carrying out the planned information and publicity activities that have been described later below in NSRF section 6.2.

- **Cost effectiveness** – the added value, whether in national public financing mix or the European level terms, will only emerge when the funding of activities will be cost effective. In other words, the benefit of added value has to be greater than the potential cost of implementation of the planned activities. Through the development of the implementation system of Structural Funds in Estonia, consistent care will be taken to ensure cost effectiveness. Yet, there are few aspects to consider in this regard in the planning phase as well:
  - **Focusing as much as possible the EU** funding in terms of sectors as well as the activities within them **based on the added value considerations described above**, while supporting a balanced development approach that NSRF has foreseen.
    This enables to achieve the maximum possible impact of EU funding on national development with much smaller cost (incl. administrative cost) as opposed to thinly and widely spread financing approach.
  - **Directing funding to sectors and activities at a rate and amount that corresponds to the absorption capacity** of resources in the sector or in relation to the activity.
    Otherwise, we would be inefficiently using the EU structural funds resources and would let go of potential added value and developmental effects these funds could have. When funding beyond the absorption capacity, we only receive outcomes at a higher price – but not more outcomes as such. For these reasons, we have tried to carefully calibrate the EU structural assistance funding going, for example, into environmental, R&D, labour market and training sectors in 2007-2013 to the activities of utmost importance and for providing the a critical mass response and impetus for sectoral and relatedly national development. Doing activities beyond that would bring about additional costs without additional benefits, based on the previous experience from 2004-2006 period and analysis of the perspectives of these sectors.
  - **Ensuring neutral or positive macro-economic impact of the planned activities.**
    The aim has been and will be to avoid contributing via EU structural assistance to increase in internal and external imbalance of the economy that would undermine the added value and developmental benefits (thus, cost effectiveness) that using structural assisitance could otherwise have. Unexpected or negative macro-economic impacts, e.g. on the internal balance through inflationary pressure that the inflow of large amounts of Structural Funds could bring about, will also decrease the absorption capacity for the assistance.
    Thus, when selecting the appropriate activities for addressing developmental needs and increasing added value, consideration has been also given to what these selections entail at the macro-economic level. For example, a balance between infrastructure and human capital investments was carefully calibrated to balance the inflationary effects at both the already heated construction and training sector markets within Estonia. A lot of thought and monitoring will during the implementation of Operational Programmes also be paid to timing the activities, especially the investments requiring construction activities, in order to limit the inflationary pressures and receive more value for the financing (see more in the Introduction section).

These considerations laid the basis of specific intervention logic under the Operational Programmes and their priority axes. They have been elaborated in greater extent in the Operational Programmes under the priority axes descriptions (especially the sections of justification of the axis and linkages to other policies, for example).

5.2. Regional dimension in the Operational Programmes

The objective of EU structural assistance is to increase cohesion, i.e. reduce the socio-economic development disparities within the EU. There-by close attention has to be paid also for reducing the disparities within Member States and regions in order to balance the territorial development and there-by increase both regional and national development potential. This consideration is especially important for Estonia in the 2007-2013 period as the disparities between regions are very evident in the country and the EU structural assistance can be used to contribute to decreasing them.

Thus, specific actions have been planned throughout the Operational Programmes and the priority axes in order to integrate the regional dimension considerations into activities under various sectors and contribute coherently to balanced territorial development.

Priority axis	***Axis' activities contributing to territorial development***
Operational Programme for Human Resource Development	
Priority axis 1: Lifelong learning	-) Through development of training and lifelong learning possibilities, accessibility of people living in less developed regions for participating in further training is increased as well as access of young people of these regions to non-formal education and youth services. -) Pedagogical-psychological counselling service cooperation network and regional methodological centres will be created in order to make the counselling services more accessible, within the framework of an integrated counselling model. The counselling is aimed at resolving problems of children with learning difficulties, and carrying out the relevant preventive work and the counselling activity in schools. -) The development of language learning opportunities for non-citizens and immigrants increases the competitiveness in employment for non-ethnic Estonians, which has a positive employment and economic development effect in areas where non-ethnic Estonians form a large share of the population (e.g. Ida-Virumaa).
Priority axis 2: Developing the human resources for R&D	-) The priority is mainly aimed at improving the international competitiveness of R&D activities in Tallinn and Tartu, where the majority of R&D and higher education potential is concentrated – but strengthening Tartu as a R&D centre has positive impact on the development of Southern Estonia, especially in terms of developing regional knowledge, innovation and business networks and systems. -) Within the framework of the e-learning programme, regional e-learning centres will be set up on the basis of the existing educational institutions, where it is possible to study according to the study programmes and further training programmes of various higher education or vocational education institutions.
Priority axis 3: Good-quality and long work life	-) For dealing with regional labour market problems, as well as for promoting regional balance, separate application rounds will be organized under the measures of the priority axis if necessary for certain areas, regions or activities, or the necessary measures will be offered within the framework of the programme upon need. -) Non-ethnic Estonians and non-Estonian speaking people are considered to be a very important target group of the whole priority axis and supported through active labour market measures, which take the biggest share of the total budget of the axis. Due to the fact that the ratio of non-Estonian speaking population in

Priority axis	*Axis' activities contributing to territorial development*
	Estonian counties is highest in the county of Ida-Virumaa, also the large proportion of action targeted to non-Estonian target group is directed to county of Ida Virumaa. -) Reduction in regional differences on the labour market will be helped by encouraging domestic labour force mobility, and reducing the accompanying obstacles (e.g. developing and implementing relevant relocation and transport measures). -) The development of services offered to the local inhabitants by the regional departments of the Labour Market Board will raise the qualifications of the population as well as their readiness to participate in the labour market (especially locally).
Priority axis 4: Knowledge and skills for innovative entrepreneurship	-) The start-up financial assistance for new businesses will be focused to regions outside the capital area. -) The provision of extra-enterprise consultation services, and the training and advisory service for new entrepreneurs, will be supported in all regions.
Priority axis 5: Enhancing administrative capacity	Within the whole axis, the development of administrative capacity at the regional and local level will be supported (in addition to state level), in particular by supporting: -) the projects of local governments and local government associations, also NGOs, aimed at strengthening the capability in strategic management as well as the development of modern administrative processes and public services, and their implementation at the organisational level; -) training public servants and employees of local government agencies and NGOs, in areas that are of a priority in public administration; -) training social partners, incl. at local level, to participate in knowledge-based policy formation processes and strengthen the social dialogue; -) local government training projects aimed at raising management capacity, or carrying out work-based further training in areas associated with management methods and systems, as well as with the development of management; -) counselling of social partners and NGOs through the county development centres' network for improving their institutional capacities; -) carrying out sectoral studies and analyses will be supported, as well as consultation projects, which will be the basis for the development or updating of strategic documents that direct regional or local development
Operational Programme for the Development of Living Environment	
Priority axis 1: Development of water and waste management infrastructure	-) As a vast majority of the water and waste management projects prepared or being prepared will be implemented outside the capital region, investments in water and waste management have, in general, a regionally balancing impact by improving the living conditions of people and business environment across Estonia.
Priority axis 2: Development of infrastructures and support systems for sustainable use of the environment	-) Investments into infrastructure of protected areas will improve the living conditions of people and increase the competitiveness (especially tourism potential) of regions outside the capital region.
Priority Area 3: Development of energy sector	-) The development of energy conservation in housing will improve the living conditions of primarily the urban population and help to regenerate urban areas - because the share of block

Priority axis	*Axis' activities contributing to territorial development*
	houses in total housing stock is bigger in cities.
Priority axis 4: Integral and balanced development of regions	The whole priority axis is directly aimed at balancing regional development by solving problems of regional and local nature and creating conditions for making more efficient use of local development advantages. The following activities will be supported: - development of local public services (developing the relevant infrastructure); - development of urban regions (developing sustainable urban transport, public infrastructure related to child care and social security provision, public urban space and recreation and green areas); - strengthening of the competitiveness of regions (developing local business and visiting environment, incl. cultural and tourism sites of national importance).
Priority axis 5: Development of education infrastructure	-) The investments under the priority axis will be carried out by taking into account the location of schools and youth centres for increasing the accessibility of education and services and their impact on the local labour market. -) Modernisation of the infrastructure of vocational education institutions will give a strong impulse also to the development of different regions of Estonia, as the institutions are located across Estonia and they have the prospect of developing into either regional or sectoral development centres in future. -) Development of youth centres outside major centres will remarkably widen up the self-realisation possibilities of rural youth.
Priority axis 6: Development of the health care and social welfare infrastructure	-) One of the priorities of developing health infrastructure will be to optimise the central and regional hospital infrastructure, which will result in concentrating stationary specialised medical care, which is currently provided in different locations, into one complex and reducing the duplication of technology and personnel. In order to ensure regionally balanced development and equal access to health care, priority will be given to hospitals which are located in regions with less favourable socio-economic situation (Eastern and Southern part of the country). -) New welfare institutions based on the family house model will be created into the regional centres (towns, township centres, larger dwellings) – which contributes to making these services more accessible across Estonia.
Operational Programme for the Development of Economic Environment	
Priority axis 1: Innovation and growth capacity of enterprises	-) Increasing focus will be put on developing regional knowledge hubs (such as science and technology parks, business incubators) which already today are seen as regional key players in bringing businesses and research together. This will enable increasing and spreading the relevant awareness, skills and capacities of both business and research sector across different regions in Estonia. -) Within cluster development measures, support will be given to make less capable enterprises to collaborate with more advanced ones across all sectors and regions to make Estonian economy and society at large able to compete internationally and to react appropriately to foreign influences. This contributes to regional development as well developed clusters create new jobs, help to increase productivity and innovation in the area through organised cooperation of enterprises. -) Tourism information networks and creation of visitors' centres in regional hubs will be supported.

Priority axis	*Axis' activities contributing to territorial development*
	-) In the framework of tourism programmes (e.g. tourism product development, marketing support, etc), preference will be given to projects that are aimed at expanding the geographical scope of tourism services that have been concentrated in Tallinn.
Priority axis 2: Improving the competitiveness of Estonian R&D through the research programmes and modernisation of higher education and R&D institutions	-) Activities under this priority axis are mainly carried out in two bigger cities - Tallinn and Tartu, which possess the highest R&D potential in Estonia. Strengthening Tartu as a R&D centre has positive impact on the development of Southern Estonia, especially in terms of developing regional knowledge, innovation and business networks and systems. -) Development of the infrastructure of professional higher education institutions contributes to regional development as these institutions are usually located in smaller towns or municipalities and often train specialists in accordance with the local/regional economy needs.
Priority axis 3: Transport investments of strategic importance	-) Support will be given to removing the transport bottlenecks that hinder economic and regional development, e.g. for the improvement of various connections on the roads belonging to the TEN-T network outside Tallinn and Tartu -) Large-scale infrastructure investments in Tallinn and Tartu relieve the problems connected to sub-urbanization in those two urban areas.
Priority axis 4: Development of regional transport infrastructure	Under this priority axis the investments into development of regional transport network will be supported. Activities are modified according the main focuses of transport policy – for improving accessibility between the regional centres and regional access to the TEN-T network and developing regional public transport. -) For ensuring links with peripheral regions, development of regional ports and airports will be supported. -) Removing the problematical spots of the regional transport infrastructure will be supported by developing infrastructure objects of regional importance which have great implication to ensure local development and co-working of strategic networks, including the connections between roads in TEN-T network through regional roads. -) For developing regional public transport, development of public transportation system and improvement of public transport infrastructure on railway and roads (incl. railway platforms, bus stops and terminals etc.) will be supported.
Priority axis 5: Development of information society	-) Local governments' investments into ICT facilities for improving the efficiency, simplicity and transparency of their administrative operations will be supported. -) Development of local government's electronic services and their quality will be supported in order to ensure the efficient provision of services to citizens, businesses and public sector institutions. -) Development of e-services in general will have a significant impact on regional development by improving the accessibility of public services in Estonia's rural regions and offering possibilities for entrepreneurship and participation in public life regardless of a person's geographical location. -) Relevant development projects will be supported for increasing the possibilities for using and creating electronic data available to citizens and increasing their participation in public life on the national, regional and local levels (e.g. through e-democracy development).

Priority axis	*Axis' activities contributing to territorial development*
	-) The development of information society will improve teleworking possibilities, there-by reducing the need to move from rural areas to regional hubs where enterprises and jobs tend to concentrate.

Due to the importance of the objective, the regional development has been identified as the horizontal theme as well in addition to the described "vertical" (i.e. sectoral) integration of regional dimension into the Operational Programmes – see the next section.

5.3. Horizontal themes

Upon the planning and implementation of all the activities of all Operational Programmes and priority axes, these horizontal themes will be followed:

- regional development;
- environmental protection;
- promotion of information society;
- equal opportunities;
- development of civil society.

These themes express the additionally intended impact of activities or the indirect objectives that are strived for in addition to direct objectives of the activities and priority axes. Although the latter are supreme to horizontal themes, they are not in collision in any way. These themes have been identified horizontally, i.e. recurrently for all Operational Programmes and priority axes because their attainment depends on the synergic effect of several programmes or axes (or all of them) and it is not possible to impact these themes under any one priority axis alone.

The horizontal themes have been determined and defined during the planning of EU structural assistance by a special work group. The choice of themes was based on considering which national development aims depends the most on the mutual impact of various sectors or activities, while also considering whether they are can be impacted by EU structural assistance activities and whether they are of utmost priority to national development.

Within each priority axis description in all Operational Programmes, the expected impact of the axis' activities on all the horizontal themes has been described. The general definitions of intended positive impact are presented below together with the definitions of the themes. Specific horizontal impacts reveal on the level of measures and projects and are followed in the monitoring process.

While implementing each measure, its impact on the horizontal themes is taken into account according to the expected relevant and important impacts of a measure. Since the characteristics of the activities supported by different measures are different, it is not rational to consider all horizontal themes in all measures but to focus only on themes possessing substantial and relevant impact. Considering horizontal themes occurs in the implementation process on the measure level and appears:

- in planning of specific objectives and activities in measure conditions;
- in determining the relevant compliance and evaluation criteria.

Consistency with horizontal themes is assessed in project selection process and project implementation process if needed. Some specific measures will aim towards one or more horizontal themes more directly. In these cases, the projects will be assessed according to the contribution that they intend to make and specific compliance and selection criteria could be added to ensure direct consideration of the horizontal theme. For example, the regional development theme could be the basis for restricting support to operations in more advanced regions in order to ensure concentration of financing in less advanced areas.

In general, all recipients of structural assistance will be required to indicate (usually in the project reports) the contribution of their operation (or the lack thereof) towards all of the horizontal themes. Based on this, the data on the number of operations and the financial volume of assistance directed towards achievement of horizontal themes will be gathered and monitored through the Structural Funds reporting system. The relevant information will also be provided to the Monitoring Committee in annual implementation reports. During the implementation of measures different evaluations are carried out in order to evaluate the productivity of implementing horizontal themes.

The definitions of horizontal themes and the positive impact on them

Regional development:
Definition: the balancing of socio-economic conditions in territorial terms. Activities that support regional development have to contribute to the achievement of better and spatially more even insurance of living standards and basic needs and to the achievement of spatially more even level of economic and labour market development and competitiveness.
Positive impact on regional development will be featured for activities that contribute to easing the regional problems or bottlenecks, utilization of development potential or reduction of regional discrepancies terms of:

- access to public services;
- quality of living environment;
- selection opportunities related to work, education, various services and self-fulfilment;
- level of jobs and employment;
- economic development;
- human resource development;
- connection and communication opportunities.

Environmental protection:
Definition: ecological balance that presumes clean environment that is safe for human health, sustainable use of resources, minimization of human-induced negative impact on environment, and environmental education supporting the latter.
An activity will have a positive impact on environmental protection if it favours or helps to:

- reduce/prevent waste production, leak of polluting substances to the environment (water, air, soil), risks of pollution rising from human-induced catastrophes, leak of ozone-decomposing substances to environment, CO2 emissions to the atmosphere;
- maintain the diversity of nature (species and their habitats, incl. landscapes);
- maintain/improve the recovery ability of renewable resources (fish, forest, wild game, water conditions (ground water, rivers, lakes, coastal sea));
- improve the sustainable use of resources (natural/mineral resources, peat, forest, water, earth), water and air quality;
- increase environmental awareness, waste treatment and recovery, energy saving, share of environmental-friendly transport, application of environmental-friendly technologies, consideration of environmental aspects in spatial planning (e.g. green networks);
- prevent human-induced risks to decrease of natural diversity and infusion of foreign species.

Upon inclusion of the current theme, the requirement of EC regulation's 1083/2006 article 17 requirement that EU structural assistance has to be used in a way that enhances sustainable development, is followed and adhered.

Promotion of information society:
Definition: in information society, the information is stored, transformed and transmitted in universal digital shape and all members of society are granted access to this information through access to data exchange networks. Routine mental labour is left for machines and organization of life is rational based on the aforementioned prerequisites.
An activity promotes information society when in its aftermath:

- more information is stored, transformed and transmitted in digital shape;
- more people have access to digital information;
- routine work and tasks are reduced;
- some process in the society has become faster, cheaper and/or has a higher quality.

Equal opportunities:
Definition: the abolition of inequality of men and women under all directions and activities and enhancement of gender equality and creation of equal opportunities for disadvantaged groups so that they can equally participate actively in the societal life.
An activity will have a positive impact on equal opportunities if it favours or helps to:

- ensure economic independence of men and women;
- equalize participation of men and women in decision-making;
- unite work and family life;
- reduce gender stereotypes;
- reduce segregation by gender in the labour and education market;
- reduce gender pay gap between men and women;
- increase active participation of disadvantaged individuals or groups in the society, including improve access to training and labour market.

Upon inclusion of the current theme, the requirement of EC regulation's 1083/2006 article 16 requirement that EU structural assistance has to be used in a way that supports gender equality and inclusion of gender issues, is respected and followed.

Development of civil society:
Definition: a continuous process that presumes active civil organisations, consistent informing of people and their inclusion at different levels by giving them an opportunity to contribute to developing the society through cooperation and participation in the decision-making processes.
An activity will have a positive impact on development of civil society if it favours or helps to:

- create associations, networks and institutions that enable cooperation for following the interests of citizens and arrange public matters better (societies, associations, roundtables, cooperation bodies, etc);
- create stable cooperation formats and communication channels for inter-sectoral communication (commissions that involve different sectors, working groups, consistent exchange of information in understandable language, inclusion, access to public information);
- employ the potential of non-governmental sector in sparing managing (jobs created in the third sector, projects carried out by the civil organisations);
- increase public-spiritedness, civic initiative and responsibility.

5.4. The Operational Programmes under the European territorial cooperation objective

Cooperation with other EU member states and neighbouring countries will be supported by the European territorial cooperation objective (for EU internal borders) as well as by the cross-border component of the European Neighbourhood and Partnership Instrument (ENPI) (for EU external borders). The first-mentioned is an instrument to be implemented according to the structural funds' regulations and the second is the one to be implemented under European Neighbourhood Policy.

The European territorial cooperation objective is aimed at strengthening cross-border cooperation, transnational cooperation and interregional cooperation in order to support the EU cohesion policy implementation. The aim of cross-border cooperation programmes is to integrate areas divided by national borders that face common problems requiring common solutions (i.e. contributing to economic and social integration and strengthening the competitiveness of border regions). Transnational cooperation programmes seek to increase cooperation across EU Member States on matters of strategic importance (i.e. increasing economic and social integration and cohesion in transnational areas). Interregional cooperation programmes should focus on the renewed Lisbon strategy (i.e. strengthening innovation, entrepreneurship, the environment and risk prevention). All

the programmes are prepared and implemented in cooperation with two or more EU member states and/or EU neighbouring countries.

The European territorial cooperation programmes will complement the Operational Programmes under the convergence objective, especially the activities aimed at internationalisation and the possible international cooperation within the implementation of Operational Programmes (see Chapter 6.5). Closer cooperation with other European regions will help to speed up the economic and social development of Estonian regions as well as to increase the critical mass and knowledge base in various fields for achieving the higher growth of the Estonian economy. There-by the territorial cooperation programmes support the achievement of the objectives of current NSRF and execution of the activities planned under the priorities.

The priorities of Estonia in territorial cooperation are cross-border cooperation along the new internal borders (Estonia/Latvia and Estonia/Finland) and along the new external borders of the EU (Estonia/Russia). Estonia will also participate in transnational cooperation of the Baltic Sea region as well as in EU-wide networking of regions.

Geographical eligibility

The following Estonian NUTS III level regions will participate in the cross-border cooperation programmes:

- Estonia and Latvia cross-border co-operation programme 2007-2013 - Lõuna-Eesti, Lääne-Eesti;
- Central Baltic cross-border co-operation programme 2007-2013 - Kirde-Eesti, Kesk-Eesti, Põhja-Eesti, Lääne-Eesti;
- Estonia-Latvia-Russia cross-border co-operation programme within ENPI 2007-2013 - Kirde-Eesti, Lõuna-Eesti, Kesk-Eesti.

The whole Estonia will be eligible for Baltic Sea Region transnational co-operation programme 2007-2013 and interregional co-operation programmes 2007-2013 (Interreg IVC, Interact II, Espon II, Urbact II).

Financial allocations and administration

Estonian allocation to European territorial co-operation programmes for 2007-2013 is approximately 51,4 million euros. From this amount 9,4 million euros is transferred from European territorial co-operation objective to co-operation across the EU external border (ENPI), i.e. to co-operation between Estonian and Russian border regions.

Considering the priorities referred above and the amount of funds available, Estonia has decided to allocate 15% of the funds initially indicated by the European Commission for transnational co-operation to cross-border co-operation. Thus, the Estonian allocation to European territorial co-operation programmes is as follows:

a. Cross-border co-operation programmes:
   - Central Baltic 23,3 million EUR
   - Estonia and Latvia 15,5 million EUR

b. Transnational co-operation programmes:
   - Baltic Sea Region 4,2 million EUR

All European territorial co-operation programmes will have their own Managing Authority, Certifying Authority, Auditing Authority and Monitoring Committees, assisted by Joint Technical Secretariats. The tasks of national responsible body for these programmes will be carried out according to the Structural Funds Act by Ministry of the Interior. It has been agreed between the relevant member states that only in case of Estonia and Latvia cross-border co-operation programme 2007-2013 the 3 authorities will be located in Estonia, whereas in case of other programmes these will be located in the other member states.

6. IMPLEMENTATION OF THE OPERATIONAL PROGRAMMES UNDER THE CONVERGENCE OBJECTIVE

6.1. Coordination during the implementation of Operational Programmes

One of the necessary preconditions of purposeful and successful implementation of structural assistance is efficient coordination between the authorities involved in the administration of funds: in planning, budgeting and utilization of assistance. In designing the coordination system, it has been taken into account that in reality many activities divided between Operational Programmes are mutually supportive and form an integral whole. In addition, it has been considered that activity areas eligible for financing under the NSRF and Operational Programmes are on many occasions also financed from national resources or from other EU instruments, including European Agricultural Fund for Rural Development and European Fisheries Fund. Thus, complementarity between different funds needs to be ensured and overlapping avoided.

The **coordination system** described below encompasses activities at different levels, all of which **apply to the whole planning and implementation cycle** of the EU structural assistance: incl. the preparation of programmes and measures; their administration, budgeting, and implementation; monitoring and evaluation; risk management etc.

Coordination of EU support and other financing instruments

The coordination between various instruments and between Operational Programmes will be ensured primarily by combining the various national processes related to planning and budgeting: during the budgeting decision-making all instruments (incl. various EU support instruments) are considered and viewed together in *ensemble* and upon need their use is harmonized. The complementarity of measures and other instruments is monitored and directed during the annual process of preparation and implementation monitoring of state budget strategy and the state budget, incl. primarily by the planned state budget strategy steering committee. The secretary-generals of ministries have an important coordinating role as they regularly discuss issues related to the utilization and targeting of budgetary funds, incl. foreign funds. The Cabinet receives aggregated reports on the use of all EU assistance on a regular basis; in addition the Cabinet discusses issues related to the reorientation of funding. This way the joint discussion on a Cabinet level of choices and obstacles of structural assistance, rural development and fisheries as well as other EU support instruments is ensured. This mechanism also allows to coordinate upon need the elaboration and consideration of proposals to change Operational Programmes once they are in force, and formulation of respective discussions.

Both the Estonian state budget strategy as well as the Operational Programmes are prepared based on the domestic sectoral development plans ('strategies'), which determine the development directions and priority fields of activity across different sectors. Thematic coordination, incl. combining of various financing sources for financing the sector takes places through the bodies that have been created for managing the implementation of these sectoral strategies – no additional thematic coordination mechanisms for the purpose of EU structural assistance coordination would accordingly not be necessary. The tasks of those bodies include monitoring and steering of the implementation of development plans, incl. the related use of different funds. These bodies are formed of the representatives of all relevant ministries, including the Ministry of Finance upon a need, and social-economic partners.

For unifying and orienting the use of different financing instruments the monitoring committees of Operational Programmes are also used. These committees feature as members all relevant ministries (incl. Ministry of Agriculture upon need) and socio-economic partners. Similarly, the relevant ministries involved in EU structural assistance implementation, incl. Ministry of Finance, belong to monitoring committees of Estonian Rural Development Plan 2007-2013 and Estonian Fisheries Development Plan 2007-2013. The task of monitoring committees is to monitor and orient the implementation of respective programme or plan, also to initiate the changing of activities or financing plan upon need.

During the preparation of NSRF and Operational Programmes, other state institutions that are dealing with EU support instruments (most notably: Ministry of Agriculture) have been involved in the planning process besides the directly relevant ministries – in order to avoid duplication between financed activities and increase synergies in the fields that are financed in combination of different sources. Cooperation between different authorities that administer the EU support continues during preparation of measures and their implementation: all relevant authorities and major partners and stakeholders are included in the process of measure preparation. In addition to continuous communication, exchange of information and cooperation taking place between the authorities in charge on regular basis during implementation, the existing domestic state's electronic system supports coordination by enabling access and granting commenting opportunity to draft legislation that other authorities have prepared.

At the level of intermediate bodies, procedures of mutual harmonisation will be created upon need in order to avoid duplicate financing of projects from different instruments and measures. The lists of all projects approved shall be made public and this helps to avoid double financing. During the appraisal of projects, it is checked that all necessary prerequisites for project implementation are in place and among them self-financing and means to liquidate potential burdens to successful implementation available for applicants.

Additional coordination mechanisms

In addition to aforementioned mechanisms, the following is also used for inter-OP coordination.

The implementation system and, in particular, the legal framework necessary for the implementation Operational Programmes is unitary and shared by all Operational Programmes. Compact and rather centralised implementation system with a single joint Managing Authority, Certifying Authority and Audit Authority facilitates the formulation of common solutions, the exchange of experience and cooperation as well as coordination in the system as a whole. There are thematic working groups formed to prepare and amend the system for the new period (e.g. administrative working group, legal working group, financial and monitoring working groups etc). All authorities dealing with structural assistance are involved in these working groups.

Ministry of Finance guides the preparation of common standards and guideline materials involving all relevant intermediate bodies into the process; joint or shared training and seminars are used to strengthen communication networks. Ministry of Finance is involved in the work of all monitoring committees of all Operational Programmes and organizes evaluations above the level of single policy areas or strategies, facilitating the use of the information attained through monitoring and evaluation for more effective management of all programmes.

6.2. Implementation system for the Operational Programmes

The implementation system of the Operational Programmes is described in more detail in the relevant chapters of the programmes but here-by the general principles of administrative organisation associated with the implementation of the National Strategic Reference Framework and the Operational Programmes as well as the division of principal functions between the authorities in

Estonia are described. This demonstrates how the Estonian NSRF will be implemented with regards the activities involving EU structural assistance.

The establishment of the implementation system has been based on the principle that the general organisation of management and control systems should remain similar to the system used in the period 2004-2006. Based on the current experience and in comparison to the other new EU Member States, the progress in using structural assistance has been relatively good in Estonia. This shows that the implementation system has generally been appropriate. In addition, the European Commission auditors have not detected essential deficiencies in the management and control systems created in Estonia for the implementation of the Single Programming Document and the Cohesion Fund projects.

The division of functions related to the implementation of the NSRF and the Operational Programmes are laid down in the Structural Assistance Act that took effect on January 1, 2007. The Structural Assistance Act as well as the horizontal secondary legislation based on it will apply equally to the implementation of all Operational Programmes. Thus, the implementation system as well as the principles and rules within it will be fairly unitary. Ministry of Finance will be the Managing Authority, Certifying Authority and Audit Authority for all Operational Programmes similarly to the current programming period (2004-2006). The principle of segregation of duties shall be respected at the level of the Ministry of Finance and also when tasks are delegated to Intermediate Bodies.

The task of the Managing Authority is to guarantee the coordination above the level of Operational Programmes, the compliance of management and control systems with requirements and the existence of general support services (including the development of the information system, and organisation of the preparation of legislation that concerns all Operational Programmes). Some of the functions of the Managing Authority shall be delegated to 1st level Intermediate Bodies and 2nd level Intermediate Bodies. Thus, the preparation of guidelines and organizing of training to ensure the proper fulfilment of delegated functions will remain an important task for the Managing Authority itself.

The task of the Certifying Authority is to organise financial management of structural assistance in Estonia, to compile expenditure declarations, to certify expenditure and to apply for funds from the European Commission.

The task of the Audit Authority is to organise the performance of audits required by EU legislation, assess the compliance of management and control systems with requirements and to give assurance within the process of closing the Programmes that expenditure has been purposeful.

Managing Authority, Certifying Authority and Audit Authority also coordinate the preparation of horizontal legislation in their respective fields and issue guidelines to the administration as a whole upon need.

Government of the Republic appoints 1st level Intermediate Bodies and 2nd level Intermediate Bodies of structural assistance. 1st level Intermediate Bodies are generally ministries that are also responsible for the achievement of objectives set in the Operational Programmes and the establishment of relevant conditions (including the preparation of field-specific legislation). The task of 2nd level Intermediate Bodies is in general to perform first level activities related to the use of assistance. Thus, the 1st level Intermediate Bodies and 2nd level Intermediate Bodies are direct implementers of the Operational Programmes and there-by the NSRF.

Monitoring of the implementation of Operational Programmes will be organised by line ministries acting as 1st level Intermediate Bodies. A separate monitoring committee shall be established for each Operational Programme for the purposes of monitoring. The task of committees will be to approve the general criteria of project selection, to monitor the implementation of the Operational Programme in general (through discussion and approval of annual implementation reports) and, if appropriate, make proposals for changes in the programme or in the organisation of its implementation, to survey the evaluations undertaken for the programme. The monitoring

committee is formed of the representatives of intermediary bodies, Ministry of Finance, other ministries and authorities related to the content and implementation of the programme, relevant socio-economic partners.

Monitoring takes places through three main mechanisms. These are: the annual reports of Operational Programmes that are compiled based on the annual reports of priority axes; the state economic year reports that assemble information on the utilization of all state budget resources in a budget year, incl. the EU structural assistance; and the strategic reports mentioned in the Article 29 section to of EC regulation 1083/2006 that present a coherent overview of EU co-financed activities in all Operational Programmes and thus the respective implementation of NSRF in mid-term retrospect. The arrangements of compiling the reports on EU support have been regulated in the governmental decree of monitoring based on the Structural Assistance Act.

Annual implementation reports shall be prepared in compliance with the Commission Regulation 1828/2006 and will contain (among other things) data on the achievement levels of indicators, regional aspects of implementation and the contribution of the funds to horizontal themes.

Outside the annual monitoring cycle, data (particularly data on committed and disbursed amounts) is reviewed by the Managing Authority and Certifying Authority on regular basis, to assess whether implementation is progressing at the desired pace and whether it infers to inadequacies, which need further attention. The Government will also be informed on financial progress and possible bottle-necks on regular basis in order to facilitate implementation by making adjustments to managing system upon need.

Ministry of Finance is responsible for the preparation of the general administrative framework for evaluation and for the coordination of evaluation activities. It shall also be responsible for organising overarching evaluations, which cover all the OPs as opposed to Intermediate Bodies who shall organize sectoral evaluations of OPs or priority axes. Hence, the evaluations can be initiated by all institutions involved in implementation. They can also be initiated by the Monitoring Committees, which shall appoint the body responsible for the particular evaluation if need be. Thus, evaluations can be launched in accordance with the management needs, based on monitoring results and the risk assessment. Generally the conduct of evaluations will be out-sourced, however, there is always a body within the administration who is responsible for the commissioning of evaluation work and the follow-up of results.

An Evaluation Committee consisting of representatives of the Managing Authority and all Intermediate bodies shall be established by the Managing Authority to compile and review annual evaluation plans. These annual plans shall be prepared in cooperation between all the authorities in order to achieve more efficient coordination of activities related to evaluation and to avoid the overlapping of activities. Evaluation Committee shall also channel evaluation results to other relevant staff of the Intermediate Bodies or the Managing Authority if need be and remind concerned Institutions of planned evaluation activities. Hence, the Evaluation Committee shall be the reference group for planning, coordinating and carrying out evaluations as well as for the process of follow-up.

In addition to annual evaluation plans a general framework shall be established for the programming period as a whole. This framework shall identify indicative areas of evaluation and an approximate time frame for evaluations related to structural assistance. Among other things and interim evaluation for the NSRF is likely to be arranged, in accordance with needs to prepare and present the strategic report twice during the programming period. A mid term review of programmes' implementation (incl. evaluation activities) will also be undertaken, the likely timing for such review is around the year 2011.

In addition to taking into account the requirements of Council Regulation (EC) No 1083/2006 and the Commission Regulation 1828/2006, the planning of communication shall also be based on the communication practices that have been formed in 2004-2006. Communication takes place in accordance with the principles of transparency and partnership. Reporting requirements shall also be established – the Monitoring Committee of the Operational Programme shall be briefed on regular

basis of the implementation of the communication plan. Communication measures shall be evaluated in accordance with Commission Regulation 1828/2006 and regular surveys shall be carried out to monitor awareness of structural funding. Communication measures detailed in communication plans may be amended or elaborated as a result of these evaluations and surveys or to adjust measures to changed circumstances.

Information about the possible sources of financing and application procedures, as well as information on the rules applied to the process of application and to the use of assistance shall be made available to the public and to potential applicants. The public shall be informed regularly on the progress of the implementation of structural assistance and those interested in the funds shall continue to have the opportunity to submit more specific enquiries to authorities, which deal with the implementation of structural assistance. Statistical information on the implementation of structural assistance as well as success stories are made public on regular bases. The lists of the recipients of assistance together with the information on the size of grants are made public. The applicants are informed about the fact that by accepting a grant, the recipient agrees with the publication of mentioned data in the general list of recipients.

Communication of structural instruments is organized through a joint network of institutions, which are involved in the implementation of structural funding. The network consists of the Managing Authority (Ministry of Finance), Lead Ministries of all Operational Programmes, 1st level Intermediate Bodies and 2nd level Intermediate Bodies. Ministry of Finance will organise the development and establishment of common principles for publicity and organize overarching communication of structural assistance, sectoral ministries shall guarantee the implementation of publicity activities in cooperation with the Ministry of Finance and organize communication for priority axis and measures. Lead ministries of the OPs shall be responsible for the preparation of Communications Plans which shall contain detailed information on communication activities, target groups, media etc.

6.3. Involvement of partners in the implementation phase

Economic and social partners (as well as other partners) are involved in the planning and implementation of the Operational Programmes in different manners.

Establishment of separate Monitoring Committees for Operational Programmes facilitates the involvement of partners who have the most expertise and stake in areas relevant to the Programmes without extending the size of the Monitoring Committees to an unreasonable size. Hence, partners are invited to take part in the discussions and the decision-making processes of the Monitoring Committees. While the size and the composition of the Monitoring Committees which is the main body for addressing and coordinating the implementation of Programmes may vary over course of the programming period, generally partners will form around 1/3 of the membership.

Relevant social partners are involved in committees and boards in which the is the national policies that involve in funding both structural funds and national funds are discussed, formulated and elaborated – i.e. in thematic coordination. This provides relevant social partners with access to the process of fundamental and higher-level policy formulation and monitoring.

Social partners are involved in the elaboration of measure decrees in a variety of manners (e.g. the membership in working groups, they have an opportunities to comment draft measure decrees etc) the exact choice of which depends on the policy area. Measure decrees set the precise nature of activities to be financed as well as the conditions related to the application and utilization of grants.

On many occasions partners contribute substantially to evaluations of the programme as they provide grass-root level opinions and data on the needs of the target groups as well information on the perceived bottle necks in implementation. They often also participate in the discussion of the observations made as a result evaluations.

Representatives of partners may be involved in project selection in some measures if they have the relevant expertise and on the condition that their participation does not jeopardize the unbiased nature of project appraisal.

6.4. Increasing administrative capacity of the implementation of Operational Programmes

Success in the implementation of Operational Programmes and in the use of structural assistance depends considerably on the capacity of the administration managing the funds. Hence, it is important to continue the strengthening of the administration of structural assistance at all levels also during the programming period of 2007-2013.

The needs resulting from the strategic role of central government as the programmer and intermediary of structural assistance and the needs related to awareness and project implementation capacity of beneficiaries have to be addressed separately. In addition, more attention than before will be paid to those aspects of administrative capacity that derive from the structure of the implementation system and procedural aspects.

Hence, during the period of 2007-2013 the main activities in maintaining and increasing structural assistance related administrative capacity are as follows:

- adaptation of the training principles of structural assistance administration according to the actual long-term needs and realisation of general and specific training programmes by the means of technical assistance;
- coordination of training of structural assistance administration is coordinated above Operational Programmes, taking the experience of all authorities into account;
- improving the competence of authorities supporting the implementation of structural assistance through the improvement of sectoral know-how of officials and keeping the experienced officials in the system;
- notification and counselling of applicants and project promoters, including further development of the regional counselling system;
- developing the regional counselling centres in a diverse fashion with the aim to ensure the access to primary counselling for all Operational Programmes;
- improvement of the effectiveness of implementation systems on procedural level.

More than 200 officials are engaged in the implementation of structural assistance as of the beginning of 2006 and about 65 people are engaged with administration of Cohesion Fund.

The salary level of officials dealing with the structural assistance is generally both higher than the average salary in the country as well as higher than the average remuneration level of civil servants. Departments of central government are generally highly valued as employers and the administration of structural assistance can be regarded attractive for employees. Internal promotion and other work related movement within the limits of the subject area is relatively common and it is also facilitated to avoid the departure of officials from the system. However the field as a whole is a growing one, hence the need to train officials continues to exist. The limited number of officials facilitates more effective coordination and exchange of experience among authorities. At the same time, the experienced specialists often have a key role in the implementation system and their replacement in case they leave is complicated due to the small size of the administration. In order to manage the personnel risk deriving from the latter, it is necessary to support versatile development and training of specialists requiring a systematic approach to the training of the administration. It is expedient to develop a separate training programme for the officials managing structural assistance during the period of 2007-2013, paying special attention to the training of newly recruited officials and diversification of competence of experienced specialists.

In some sectors the competence borders of authorities need to be clearly defined. In several fields (e.g. public procurements, tax policy, environmental protection etc) there do already exist in the state authorities with supervisory functions who are not directly engaged in administrating structural

assistance but whose competence is of considerable importance for the implementation of assistance. Therefore, other authorities crucial for ensuring the orderly and appropriate implementation of assistance projects need to be developed in addition to supporting the administration engaged with structural assistance directly.

Key factors in the successful implementation of structural assistance are also the capability of applicants and project promoters to prepare projects and to implement them efficiently. The volume of funds allocated to Estonia by the EU will increase remarkably during the programming period of 2007-2013. Hence, it is important that applicants and project promoters have even better access to information and that measures are taken for the systematic improvement of the know-how of the promoters of the projects. It is essential to maintain the availability of counselling at the regional level to guarantee the availability and quality of information and to develop the service further according to the conditions of the new programming period. Also, the beneficiaries will be offered more support through training, information events and guideline materials.

The last essential line of action during the period is the improvement of the effectiveness of the implementation systems and through that the strengthening of absorption capacity and enabling of more optimal use of resources associated with administration. Considering the increase in the volume of structural assistance as compared to period 2004-2006, the effective employment of existing resources is important in respect to maintaining absorption capacity. Implementation of structural assistance should be quick, yet at the same time the control of the eligibility of costs as well as the evaluation of the effectiveness of activities should be ensured. Therefore, an effective scope and level of controls on procedural level should be guaranteed. In addition, the managing authority supports the intermediate bodies by running consultation and counselling, provision of necessary guidelines and materials and training. Among other things, information technology possibilities will be more extensively and functionally used for this in order to simplify processing of documents, to reduce the proportion of technical work and thereby enable to direct more resources to activities of substance.

6.5. International cooperation in the framework of implementing the Operational Programmes

When there is a mutual interest or need, the Managing Authority, 1st level Intermediate Bodies and/or 2nd level Intermediate Bodies work in cooperation with other Member States of the European Union, especially with the regions of Baltic Sea and other Baltic countries in implementing the Operational Programme. Cooperation means mainly sharing information about the activities to be implemented and the management of implementation. On occasions where it is appropriate activities shall be coordinated or joint activities shall be implemented within the framework of the priority axis of this Operational Programme. It is attempted to use and develop cooperation mechanisms that are already in use and working, especially between the Baltic countries and the regions of Baltic Sea. Additional mechanisms aiming at the cooperation in the field of structural assistance will be created if needed.

When it is suitable and helps to improve the implementation of the priority axis of the current Operational Programme, cooperation with other regions of Europe shall be done in the framework of European Commission initiative Regions for Economic Change by joining initiated networks.[28]

By joining the networks, Estonia declares to take the following obligations:

1) to associate in the Operational Programme and give structural assistance to innovative activities that derive from the work of the networks;
2) to enable the representatives of the networks to participate in the meetings of the Monitoring Committee (as observers) for allowing them to give an overview of the activities of the networks to the members of the Monitoring Committee;

[28] More information on Regions for Economic Change:
http://ec.europa.eu/regional_policy/cooperation/interregional/ecochange/index_en.cfm

3) to foresee at least once a year in the agenda of Monitoring Committee meeting a special point for getting an overview of the activities of the networks and for discussing the suggestions deriving from their work for supporting the new innovative ideas within the framework of the Operational Programme;
4) to give an overview (in the content of the monitoring annual report) about the regional activities carried out within the initiative Regions for Economic Change.

7. SUMMARY OF EX-ANTE EVALUATION OF THE OPERATIONAL PROGRAMME

The Ministry of Finance and Tallinn University of Technology signed a contract on 11 May 2006 for carrying out ex-ante evaluation of the National Strategic Reference Framework and Operational Programmes. Professor Enn Listra, Dean of the Faculty of Economics, Tallinn University of Technology, led the 10-member team of experts.

In the course of the initial ex-ante evaluation, the National Strategic Reference Framework as at May 29, 2006 was evaluated (*Evaluated document*). The experts proceeded from the European Commission's ex-ante evaluation guidelines and from the *underlying questions for Evaluation* prepared by the Ministry of Finance.

The ex-ante evaluation comprised five parts:

1) Accordance evaluation – the task was to assess if the *Evaluated document* accords to the requirements of the other regional, national and Community policies and ex-ante evaluation guidelines. Altogether conformity with ten documents was assessed.
   The team of experts concluded that the *Evaluated document* was in no contradiction with any of the documents used for comparison. Indeed, the latter are often more detailed and broader in their scope, but the decision made by the devisers of the Strategy – not to dub all the criteria and target levels in the NSRF and OPs − was well substantiated in the experts' opinion.
2) Interviews with the compilers of the OP – the aim was to understand how they scheduled and executed the process. It was considered important to find out if the compilers envisioned the *Evaluated document* as a strategy, if their actions were systematic, and if all the compilers are satisfied with the end result. On the basis of the questionnaire, all the nine compiling institutions, i.e. the compilers of the *Evaluated document* were interviewed.
   The team of experts concluded that the compilers were generally content with the result and, despite some differences of opinion, were able to compromise. The experts admitted there were problems in the *Evaluated document* related to a) indicators; b) the clarity of presentation of the interconnections between the needs-aims-priorities for an outsider.
3) Interviews with partners – the aim was to reveal the partners' actual roles in the process of strategy elaboration. Answers were sought to the following questions: how well informed are the partners about the content of the *Evaluated document*, what contribution have they made to the document, to what degree are they content with the final result, does the partners' vision coincide with that of the compilers, and if, then to what degree, and how do the partners assess their involvement?
   The team of experts concluded that even though 124 partners were involved according to the list, most of them actually never participated in the compilation. The main reason for that was their poor ability to have a say in the process, which can primarily be put down on the partner organisations' small numbers of employees who are overburdened with other work. The compilers put no obstacles on the way of people who were interested in participating in the process.
   The interviewed partners criticised the way of handling the enterprise and R&D sectors in the *Evaluated document* and the treatment of the relevant Priority (No 2).
   Even though several partners admitted to their own (and other partners') limited role in the compilation of the strategy, the overwhelming majority had no doubts about the country's need for such a strategy.
4) The evaluation by the team of experts – was formed, on the one hand, by the input obtained in the course of work (accordance evaluation, interviews with compilers and partners), and on the other hand, by the discussions about the *Evaluated document* between the experts.
   The evaluation was expressed by a) answers to the *underlying Evaluation questions* and proposals; b) detailed comments on the *Evaluated document* (altogether 164 comments). In summary the following can be pointed out:

- **Essence:** the *Evaluated document* should be a foundation for developing the Operational Programmes. No new, independent strategy has been developed; but rather an elaboration and compilation of other development plans. In the opinion of the expert team, the approach taken by the compilers has more advantages than other possible alternatives;
- **Full picture**: The *Evaluated document* fails to provide a full picture of the sector (i.e. the means/instruments of which budgets and programmes have been assigned in the past and are forecast to be assigned in the period 2007-2013 for dealing with issues under these sectors); therefore it is impossible to evaluate whether the volumes (planned input in the Evaluated document) accord to the needs and whether the forecast outcome (target level of indicators) is attainable in reality;
- **Defining and specifying**: In the sub-section Analysis of the situation, topical issues of different fields have been addressed. However, "default" specifications (e.g.: under transport also public transport is dealt with, excluding from it bus and coach transport) are made without justifications or clarifications (e.g., pointing out that the sector is not eligible or will be dealt with in some other OP). To avoid duplication with OPs, a solution could have been to make reference in the NSRF to the relevant parts of OPs where the defining and specifying could have been done in detail;
- **External factors**: The analysis of external factors (incl. opportunities and risks) is undertaken in a separate paragraph. The treatment of external factors by sectors could be improved and also the presentation of their impact in the OT-section of the SWOT-analysis;
- **Style of analysis**: The analysis should be more analytical in style (now it is rather descriptive);
- **Prioritising:** Prioritisation of needs (incl. by indicating the criteria for judgement) is altogether absent, which is why it is impossible to tell whether the most urgent problems have gotten the most attention in the priority axes and funding plans parts;
- **Summary of the analyses and the SWOT analysis**: The expert group could not indicate a clear connection between the analysis and the conclusions made based on them (incl. SWOT and its interpretation). The analysis treats by sectors a variety of sub-themes in the style "this needs developing in the future", but what has then been the basis for making choices into compiling the SWOT? SWOT-table itself should be explained better and reviewed. The question arises about the measurability of several statements that have been made. Mostly it remains unclear in comparison to whom the strength-weakness has been identified. In the opportunities-threats section the treatment is not in accordance with the SWOT-analysis method – it should be a summary of external factors (that cannot be influenced), but currently the potential development cases that Estonia can impact have been described in places;
- **Objectives**: The objectives have been determined after the analysis. The general objective (i.e. convergence) should be definer in more clear and measurable way. Sub-objectives have been identified as supporting the headline objective. Considering the coherence of treatment, the objective tree could be used throughout the NSRF and OPs (connected also to indicators) so that all objectives would be linked to each up until the general objective;
- **Indicators**: The indicators have been determined in connection with the objectives. As an instrument for management and making decisions, the treatment of the matter is not sufficiently systematic and transparent (i.e., it is not related to an analysis of the present situation so that it would be immediately clear that the planned target level will resolve a (topical) problem). Neither is there an analysis of whether the target levels of indicators are attainable in reality, considering the financing and the fact that attempts are made to achieve the target levels of several indicators simultaneously (lacking a **full picture**, the bystander is unable to perform this analysis on his/her own). Seven years is such a long period that it would make it reasonable to give target levels of indicators for the interim years as well;
- **Horizontal themes**: The horizontal themes have been named but it does not become clear which criteria has been used as the basis for their choice and judgment. It also is not revealed in what relationship the objectives are with the horizontal values (incl. possible relations of communication and conflict and their management). The names of some horizontal themes match the priority axes in the OPs which creates unnecessary confusion;
- **Priorities**: The priorities have been identified in the *Evaluated document* and they are related to the topics covered and treated in the analysis. The priorities themselves are important in

the light of other documents (incl. Lisbon strategy and the Estonian Action Plan for Growth and Jobs, Community Strategic Guidelines, Sustainable Estonia 21). The priorities have been phrased in a rather general manner, i.e. basically they are not priorities *per se* (i.e. activities that are more important compared to the alternatives) but total names for sectors

- **Alternative priorities**: Have not been dealt with;
- **Linkages with other priorities**: The linkages have been described but the treatment could be more analytical (i.e. how and to what extent are the priorities connected). Mainly the potentially positive developments have been described that just could emerge. Possible negative mutual effects should also be shown and the common actions pointed out that could be used for creating synergy between priorities or managing conflicts;
- **Financing plan**: The *Evaluated document* did not feature a financing plan at the time of evaluation;
- **Implementation system:** The principles of the implementation system have been written out. The treatment is exemplary;

5) Dissemination of results – care was taken to make the ex-ante evaluation an interactive and iterative process on a daily basis.
The web-based e-learning environment Moodle supported the process. In the course of work, five presentations were made to the representatives of the EC, IMF and ministries, as well as to the public. In addition to that, in the course of the process, there was regular communication between the representatives of the MF, the project leader of the ex-ante evaluation and the OP writers and experts in specific fields belonging to the team of experts.

In the course of the ex-ante evaluation the team of experts reached the opinion that, as a generalisation, on the basis of the ex-ante criteria concerning the *Evaluated document* it can be said that the document:

- is sufficiently **relevant**, i.e. the strategy is relevant, deriving from the identified needs and problems
- its **effect**, i.e. whether it is likely that the objectives of the programme will be achieved, needs to be emphasised more
- is sufficiently **useful**, i.e. it is likely that the programme will have a broader impact on solving social, environmental and economic needs and problems.

On the basis of the additional criteria, it can be said that the *Evaluated document*:

- **uses the earlier periods' experience** to a limited extent, i.e., in designing the strategy, the ENDP 2004-2006 experience (conclusions of research) has not been significantly reckoned with (Note: it needs to be taken into account that it is premature to expect a complete review of the (interim) results of the 2004-2006 period)
- shows a generally high level **of harmony within the strategy**, i.e. the interconnections between the elements of the strategy are good
- shows that **the external harmony of the strategy**, i.e., the strategy's accordance to the distribution of the financial means and to other regional, national and Community policies (i.e., programmes and methodological documents), is declarative in nature and not contentual (Note that most of the programmes and methodological documents used for comparison are very vague and declarative themselves.)
- **the quantifiable values of targets,** i.e. the measuring instruments expressed in numbers to be able to assess strategy results, are not assessable from the point of view of achievability
- **the quality of the system of implementation**, i.e. how it can influence the achievement of the objectives of the strategy, is excellent
- **added value to the Community as a whole**, i.e. to what degree the priorities of the Community and the need to maximise additionality to the Community, have not been addressed by way of analysis.

The expert team's overall evaluation of the *Evaluated document* is positive. The remarks were primarily made in order to improve control over strategy implementation (incl. turning attention to possible problematic areas) and to raise the efficiency of the processes of planning and control in the public sector in the future.

The summary of the ex-ante evaluation of the *Evaluated document* presented in this chapter is based on the evaluators' comments and proposals which were made in the course of reading the *Evaluated document* and answering the *underlying questionnaire of evaluation*. The comments, proposals and responses from the ministries are presented as tables in among the annexes of the evaluation report.

ANNEX 1. LIST OF PARTNERS INCLUDED IN THE PREPARATION OF THE STRATEGY

Presented by the ministries, as of May 17, 2006.

	Ministry of Education and Research
1	Association of Estonian Adult Educators – ANDRAS (Eesti Täiskasvanukoolitajate Assotsiatsioon - ANDRAS)
2	Association of Estonian Trade Unions (Eesti Ametiühingute Keskliit)
3	Estonian Academy of Sciences (Eesti Teaduste Akadeemia)
4	Estonian Biocentre (Eesti Biokeskus)
5	Estonian Chamber of Commerce and Industry (Eesti Kaubandus-Tööstuskoda)
6	Estonian Employers' Confederation (Eesti Tööandjate Keskliit)
7	Estonian Information Technology Foundation (Eesti Infotehnoloogia Sihtasutus)
8	Estonian Non-formal Adult Education Association (Eesti Vabaharidusliit)
9	Estonian Qualification Authority (Kutsekvalifikatsiooni Sihtasutus)
10	Estonian Rectors' Conference (Rektorite Nõukogu)
11	Estonian Society for Promotion of Vocational Education and Training (Sihtasutus Eesti Kutseõppe Edendamise Ühing)
12	Estonian Union of Scientists (Teadlaste Liit)
13	Estonian University of Life Sciences (Eesti Maaülikool)
14	Estonian Youth Work Centre (Eesti Noorsootöö Keskus)
15	National Institute of Chemical Physics and Biophysics (Keemilise ja Bioloogilise Füüsika Instituut)
16	Rectors' Council of Professional Higher Educational Institutions (Rakenduskõrgkoolide Rektorite Nõukogu)
17	Tallinn University (Tallinna Ülikool)
18	Tallinn University of Technology (Tallinna Tehnikaülikool)
19	Tartu Biotechnology Park (Tartu Biotehnoloogiapark)
20	Tartu Science Park (Tartu Teaduspark)
21	The Cooperation Council of National Associations of Estonian local authorities (Eesti Omavalitsusliitude Koostöökogu)
22	Tiger Leap Foundation (Tiigrihüppe Sihtasutus)
23	Union of Open Youth Centres (Eesti Avatud Noortekeskuste Ühendus)
24	University of Tartu (Tartu Ülikool)
	Ministry of Social Affairs
1	Association of Estonian Cities (Eesti Linnade Liit)
2	Association of Estonian Trade Unions (Eesti Ametiühingute Keskliit)
3	Association of Municipalities of Estonia (Eesti Maaomavalitsuste Liit)
4	Baltic Environmental Forum (Balti Keskkonna Foorum)
5	Estonian Association of Surgeons (Eesti Kirurgide Assotsiatsioon)
6	Estonian Chamber of Commerce and Industry (Eesti Kaubandus-Tööstuskoda)
7	Estonian Chamber of Disabled People (Eesti Puuetega Inimeste Koda)
8	Estonian Chamber of Pensioners (Eakate Koda)
9	Estonian College of Health Executives (Eesti Tervishoiujuhtide Kolleegium)
10	Estonian eHealth Foundation (E-tervise Sihtasutus)
11	Estonian Employees' Unions' Confederation (Eesti Teenistujate Ametiliitude Keskorganisatsioon)
12	Estonian Employers' Confederation (Eesti Tööandjate Keskliit)
13	Estonian Hospitals Association (Eesti Haiglate Liit)
14	Estonian Medical Association (Eesti Arstide Liit)
15	Estonian Midwives Association (Eesti Ämmaemandate Ühing)
16	Estonian Nurses Union (Eesti Õdede Liit)
17	Estonian Patient Advocacy Gouncil (Eesti Patsientide Nõukoda)
18	Estonian Union of Women in Business (Eesti Naisettevõtjate Liit)

19	Estonian Women's Studies and Resource Centre (Eesti Naisuurimus- ja Teabekeskus)
20	Innopolis Consulting
21	Network of Estonian Nonprofit Organizations (Eesti Mittetulundusühingute ja Sihtasutuste Liit)
22	Non-Estonians Integration Foundation (Mitte-eestlaste Integratsiooni Sihtasutus)
23	Open Care Development Centre (Avahoolduse arenduskeskus)
24	Patients Representative Association of Estonia (Eesti Patsientide Esindusühing)
25	Praxis Centre for Policy Studies (Poliitikauuringute Keskus Praxis)
26	The Estonian Society of Family Doctors (Eesti Perearstide Selts)
27	Union of Estonian Emergency Medical Services (Eesti Kiirabi Liit)
28	University of Tartu, Faculty of Medicine (Tartu Ülikooli Arstiteaduskond)
29	University of Tartu, Faculty of Social Sciences (Tartu Ülikooli Sotsiaalteaduskond)
Ministry of Culture	
1	Council of Museums (Muuseuminõukogu)
2	Estonian Olympic Committee (Eesti Olümpiakomitee)
3	Estonian Regional Sports Council (Eesti Regionaalne Spordinõukogu)
4	Heritage Conservation Advisory Panel (Eesti Muinsuskaitse Nõukogu)
5	Public Understanding Foundation (Ühiskondliku Leppe Sihtasutus)
6	The Council of Estonian Regional Culture Policy (Eesti Regionaalse Kultuuripoliitika Nõukoda)
Ministry of the Environment	
1	Estonian Biotechnology Association (Eesti Biotehnoloogia Liit)
2	Estonian Council of Environmental NGOs (Eesti Keskkonnaühenduste Koda)
3	Estonian Waste Management Association (Eesti Jäätmekäitlejate Liit)
4	Estonian Water Association (Eesti Veeühing)
5	Public Understanding Foundation (Ühiskondliku Leppe Sihtasutus)
Ministry of Economic Affairs and Communications	
1	Association of Estonian Facilities Administrators and Maintainers (Eesti Kinnisvara Haldajate ja Hooldajate Liit)
2	Association of Estonian House-Owners' Societies (Eesti Majaomanike Ühenduste Liit)
3	Association of Estonian Trade Unions (Eesti Ametiühingute Keskliit)
4	Estonian Association of Information Technology and Telecommunications (Eesti Infotehnoloogia- ja Telekommunikatsiooni Liit)
5	Estonian Association of Owners by Title (Eesti Õigusjärgsete Omanike Liit)
6	Estonian Association of Small and Medium Sized Enterprises (Eesti Väike- ja Keskmiste Ettevõtjate Assotsiatsioon)
7	Estonian Association of Travel Agents (Eesti Turismienterpriseade Liit)
8	Estonian Biotechnology Association (Eesti Biotehnoloogia Liit)
9	Estonian Business School
10	Estonian Co-Operative Union (Eesti Ühistegeline Liit)
11	Estonian Chamber of Commerce and Industry (Eesti Kaubandus-Tööstuskoda)
12	Estonian Employers' Confederation (Eesti Tööandjate Keskliit)
13	Estonian Euromanagement Institute
14	Estonian Hotel and Restaurant Association (Eesti Hotellide ja Restoranide Liit)
15	Estonian Institute for Future Studies (Eesti Tuleviku Uuringute Instituut)
16	Estonian Rectors' Conference (Rektorite Nõukogu)
17	Estonian Spa Association (Eesti Kuurort- ja Taastusravi Liit)
18	Estonian Taxpayer`s Assotiation (Eesti Maksumaksjate Liit)
19	Estonian Tenants Union (Eesti Üürnike Ühenduste Liit)
20	Estonian Trade Council (Eesti Väliskaubanduse Liit)
21	Estonian Union of Cooperative Housing Associations (Eesti Korteriühistute Liit)
22	Estonian Woodworking Federation (Eesti Puutööliit)
23	Junior Achievement Estonia (Junior Achievement Arengufond)
24	Junior Chamber International Estonia (Eesti Noorte Kommertskoda)
25	Non-profit organisation Estonian Rural Tourism (MTÜ Eesti Maaturism)
26	Public Understanding Foundation (Ühiskondliku Leppe Sihtasutus)
27	Tallinn University (Tallinna Ülikool)

28	Tallinn University of Technology (Tallinna Tehnikaülikool)
29	University of Tartu (Tartu Ülikool)
30	Union of Estonian Automobile Enterprises (Eesti Autoettevõtjate Liit)
	Ministry of Agriculture
1	Areto (OÜ Areto)
2	Association of Estonian Food Industry (Eesti Toiduainetööstuse Liit)
3	Assotiation of Estonian Breweries (Eesti Õlletootjate Liit MTÜ)
4	Estonian Agricultural Producers Central Union (Eesti Põllumajandustootjate Keskliit)
5	Estonian Association of Bakeries (Eesti Leivaliit MTÜ)
6	Estonian Association of Rural Women (Eesti Maanaiste Ühendus)
7	Estonian Association of Small and Medium Sized Enterprises (Eesti Väike- ja Keskmiste Ettevõtjate Assotsiatsioon)
8	Estonian Assocition of Fishery (Eesti Kalaliit)
9	Estonian Beekeepers Association (Eesti MesinikeLiit)
10	Estonian Chamber of Agriculture and Commerce (Eesti Põllumajandus-Kaubanduskoda)
11	Estonian Commercial Fishermen Association (TÜ Eesti Kutseliste Kalurite Ühistu)
12	Estonian Council of Environmental NGOs (Eesti Keskkonnaühenduste Koda)
13	Estonian Crayfish Breeders Society (Eesti Vähikasvatajate Tulundusühistu)
14	Estonian Dairy Association (Eesti Piimaliit MTÜ)
15	Estonian Farmers´ Federation (Eestimaa Talupidajate Keskliit)
16	Estonian Fish Farmers Association (Eesti Kalakasvatajate Liit)
17	Estonian Fishermens' Association (Eesti Kalurite Liit)
18	Estonian Fishing Association (TÜ Eesti Kalapüügiühistu)
19	Estonian Horticultural Association (Eesti Aiandusliit)
20	Estonian Land-Reclamation Society (Eesti Maaparandajate Selts)
21	Estonian Private Forest Union (Eesti Erametsaliit)
22	Estonian Spirits Association (Viina Liit MTÜ)
23	Estonian Sports Information Centre (Eesti Sporditeabe SA)
24	Estonian Traders Union (Eesti Kaupmeeste Liit)
25	Estonian Trawlfishing Association (TÜ Eesti Traalpüügi Ühistu)
26	Estonian University of Life Sciences (Eesti Maaülikool)
27	Estonian Young Farmers Organisation (MTÜ Eesti Noortalunikud)
28	Kodukant (Liikumine Kodukant)
29	Non-profit organisation Estonian Rural Tourism (MTÜ Eesti Maaturism)
30	Public Understanding Foundation (Ühiskondliku Leppe Sihtasutus)
31	The Association of Estonian Wine Producers (Eesti Veinitootjate Liit)
32	Union of Estonian High Sea Fishers (Eesti Kaugpüüdjate Liit)
	Ministry of the Interior
1	Assocation of Local Authorities of Hiiumaa (Hiiumaa Omavalitsuste Liit)
2	Association of Local Authorities of Lääne-Viru County (Lääne-Virumaa Omavalitsuste Liit)
3	Association of Estonian Cities (Eesti Linnade Liit)
4	Association Of Estonian Small Ports (Eesti Väikesadamate Liit)
5	Association of Local Authorities of Ida-Viru County (Ida-Virumaa Omavalitsuste Liit)
6	Association of Local Authorities of Järvamaa (Järvamaa Omavalitsuste Liit)
7	Association of Local Authorities of Jõgeva County (Jõgevamaa Omavalitsuste Liit)
8	Association of Local Authorities of Pärnu County (Pärnumaa Omavalitsuste Liit)
9	Association of Local Authorities of Põlvamaa (Põlvamaa Omavalitsuste Liit)
10	Association of Local Authorities of Rapla County (Raplamaa Omavalitsuste Liit)
11	Association of Local Authorities of Tartu County (Tartumaa Omavalitsuste Liit)
12	Association of Local Authorities of Viljandi County (Viljandimaa Omavalitsuste Liit)
13	Association of Local Authorities of Võrumaa (Võrumaa Omavalitsuste Liit)
14	Association of Municipalities of Estonia (Eesti Maaomavalitsuste Liit)
15	Kodukant (Liikumine Kodukant)
16	Local Authorities Assotioation of Lääne County (Läänemaa Omavalitsuste Liit)

17	Network of Estonian Nonprofit Organizations (Eesti Mittetulundusühingute ja Sihtasutuste Liit)
18	Saaremaa Local Government Association (Saaremaa Omavalitsuste Liit)
19	Union of Harju County Municipalities (Harjumaa Omavalitsuste Liit)
20	Union of Municipals in Valga County (Valgamaa Omavalitsuste Liit)

ANNEX 2. THE FINANCING PLAN OF THE NSRF: COMMUNITY PARTICIPATION BY OPERATIONAL PROGRAMMES AND FUNDS IN 2007-2013

		Community participation (EUR), in current prices							
Operational programme	Fund	Total	2007	2008	2009	2010	2011	2012	2013
European Regional Development Fund (ERDF) and Cohesion Fund (CF)									
Operational programme for the Development of Living Environment	ERDF+CF	1 607 314 506	191 323 413	192 184 080	203 563 502	220 969 123	246 083 892	276 612 501	276 577 995
	ERDF	980 980 350	123 070 624	117 871 086	122 644 751	132 849 800	150 027 253	171 895 412	162 621 424
	CF	626 334 156	68 252 789	74 312 994	80 918 751	88 119 323	96 056 639	104 717 089	113 956 571
Operational programme for the Development of Economic Environment	ERDF+CF	1 404 628 046	167 237 272	167 920 822	177 786 719	193 002 715	215 003 245	241 799 962	241 877 311
	ERDF	879 230 756	109 983 760	105 583 736	109 908 427	119 084 260	134 426 612	153 958 553	146 285 408
	CF	525 397 290	57 253 512	62 337 086	67 878 292	73 918 455	80 576 633	87 841 409	95 591 903
European Social Fund (ESF)									
Operational Programme for Human Resource Development	ESF	391 517 329	10 999 317	42 747 256	57 800 864	64 756 653	61 280 139	51 579 840	102 353 260
Total all Funds		3 403 459 881	369 560 002	402 852 158	439 151 085	478 728 491	522 367 276	569 992 303	620 808 566
Total ERDF		1 860 211 106	233 054 384	223 454 822	232 553 178	251 934 060	284 453 865	325 853 965	308 906 832
Total CF		1 151 731 446	125 506 301	136 650 080	148 797 043	162 037 778	176 633 272	192 558 498	209 548 474
Total ESF		391 517 329	10 999 317	42 747 256	57 800 864	64 756 653	61 280 139	51 579 840	102 353 260
Total appropriation provided for under EAFRD		714 658 855	95 608 462	95 569 377	95 696 594	100 929 353	104 639 066	108 913 401	113 302 602
Total appropriation provided for under EFF		84 568 039	9 130 309	9 971 872	10 889 823	11 891 071	12 995 534	14 201 298	15 488 132

ANNEX 3. 2007-2013 EU STRUCTURAL FUNDS CONTRIBUTION TO EUROPEAN GROWTH AND JOBS AGENDA IN ESTONIA

Article 9 Section 3 of the European Council regulation No 1083/2006 sets forth the principle that the assistance from Cohesion Policy instruments of European Social Fund, European Regional Development Fund and Cohesion Fund needs to be targeted to promoting and implementing the EU agenda of promoting growth and jobs. To ensure fulfilment of this principle, a specific 'earmarking' mechanism has been foreseen for allocating specific amount of funding to relevant priorities and activities.

Annex IV of the EC regulation No 1083/2006 determines for the structural expenditure categories that will be considered as contributing to the European growth and jobs agenda. The states that were EU member before May 1, 2004 have to make a commitment to direct at least 60% of Convergence objective assistance to these expenditure categories. The states that joined EU on or after May 1, 2004 (incl. Estonia) have a choice and possibility to be bound by similar commitment upon own initiative in agreement with the European Commission.

Estonia takes the commitment to direct at least 47% of 2007-2013 EU structural assistance to the expenditure categories that correspond to European Growth and Jobs agenda based on Annex IV of the EC regulation No 1083/2006.

Based on the financial plans of Operational Programmes, the indicative contribution to the relevant expenditure categories will be as follows:

Table 3. Indicative structural assistance expenditure in Estonia in 2007-2013 into the categories of Annex IV of EC reg. 1083/2006

Category #	Category name	Total
Research and technological development (R&TD), innovation and entrepreneurship		
1	R&TD activities in research centres	183 876 050
2	R&TD infrastructure (including physical plant, instrumentation and high-speed computer networks linking research centres) and centres of competence in a specific technology	133 324 620
3	Technology transfer and improvement of cooperation networks between small businesses (SMEs), between these and other businesses and universities, post-secondary education establishments of all kinds, regional authorities, research centres and scientific and technological poles (scientific and technological parks, technopoles, etc.)	115 856 161
4	Assistance to R&TD, particularly in SMEs (including access to R&TD services in research centres)	15 771 094
5	Advanced support services for firms and groups of firms	15 135 365
6	Assistance to SMEs for the promotion of environmentally-friendly products and production processes (introduction of effective environment managing system, adoption and use of pollution prevention technologies, integration of clean technologies into firm p	8 793 732
7	Investment in firms directly linked to research and innovation (innovative technologies, establishment of new firms by universities, existing R&TD centres and firms, etc.)	80 671 839
8	Other investment in firms	62 570 782

9	Other measures to stimulate research and innovation and entrepreneurship in SMEs	40 586 453
Information society		
10	Telephone infrastructures (including broadband networks)	0
11	Information and communication technologies (access, security, interoperability, risk-prevention, research, innovation, e-content, etc.)	12 213 516
12	Information and communication technologies (TEN-ICT)	0
13	Services and applications for the citizen (e-health, e-government, e-learning, e-inclusion, etc.)	62 633 416
14	Services and applications for SMEs (e-commerce, education and training, networking, etc.)	0
15	Other measures for improving access to and efficient use of ICT by SMEs	0
Transport		
16	Railways	21 857 784
17	Railways (TEN-T)	133 411 732
20	Motorways	0
21	Motorways (TEN-T)	212 825 790
26	Multimodal transport	0
27	Multimodal transport (TEN-T)	0
28	Intelligent transport systems	3 195 582
29	Airports	12 526 683
30	Ports	41 338 054
32	Inland waterways (TEN-T)	7 014 942
Energy		
34	Electricity (TEN-E)	0
36	Natural gas (TEN-E)	0
38	Petroleum products (TEN-E)	0
39	Renewable energy: wind	6 800 199
40	Renewable energy: solar	0
41	Renewable energy: biomass	3 400 100
42	Renewable energy: hydroelectric, geothermal and other	0
43	Energy efficiency, co-generation, energy management	63 374 791
Environmental protection and risk prevention		
52	Promotion of clean urban transport	0
Increasing the adaptability of workers and firms, enterprises and entrepreneurs		
62	Development of life-long learning systems and strategies in firms; training and services for employees to step up their adaptability to change; promoting entrepreneurship and innovation	28 560 837
63	Design and dissemination of innovative and more productive ways of organising work	35 754 733
64	Development of specific services for employment, training and support in connection with restructuring of sectors and firms, and development of systems for anticipating economic changes and future requirements in terms of jobs and skills	0
Improving access to employment and sustainability		
65	Modernisation and strengthening labour market institutions	0
66	Implementing active and preventive measures on the labour market	108 841 537
67	Measures encouraging active ageing and prolonging working lives	9 586 747
68	Support for self-employment and business start-up	13 528 818
69	Measures to improve access to employment and increase sustainable participation and progress of women in employment to reduce gender-based segregation in the labour market, and to reconcile work and private life, such as facilitating access to childcare and care for dependent persons	4 090 346

70	Specific action to increase migrants' participation in employment and thereby strengthen their social integration	0
Improving the social inclusion of less-favoured persons		
71	Pathways to integration and re-entry into employment for disadvantaged people; combating discrimination in accessing and progressing in the labour market and promoting acceptance of diversity at the workplace	3 195 582
Improving human capital		
72	Design, introduction and implementation of reforms in education and training systems in order to develop employability, improving the labour market relevance of initial and vocational education and training, updating skills of training personnel with a view to innovation and a knowledge based economy	36 872 547
73	Measures to increase participation in education and training throughout the life-cycle, including through action to achieve a reduction in early school leaving, gender-based segregation of subjects and increased access to and quality of initial vocational and tertiary education and training	46 589 323
74	Developing human potential in the field of research and innovation, in particular through post-graduate studies and training of researchers, and networking activities between universities, research centres and businesses	76 191 984

In addition to contribution to these categories, the implementation of Operational Programmes contributes also to other categories that are equally important in promoting the growth and jobs agenda in Estonia. Based on the assessment against the Estonian Action Plan for Growth and Jobs 2005-2007 (i.e. the National Reform Programme) Estonia aims to direct at least an indicative 81% of the EU Structural Funds and the Cohesion Fund in 2007-2013 to the European growth and jobs agenda.

The additional expenditure categories contributing to EU growth and jobs agenda based on the Estonian Action Plan for Growth and Jobs 2005-2007 are:

Table 4. Indicative structural assistance expenditure in Estonia in 2007-2013 into the other categories contributing to EU growth and jobs agenda

Category #	**Category name**	**Total**
Transport		
22	National roads	34 448 379
25	Urban transport	152 043 896
Environmental protection and risk prevention		
44	Management of household and industrial waste	70 302 813
45	Management and distribution of water (drinking water)	203 878 160
46	Water treatment (waste water)	203 878 160
47	Air quality	13 600 398
51	Promotion of biodiversity and nature protection (including Natura 2000)	21 729 961
54	Other measures to preserve the environment and prevent risks	67 107 231
Investment in social infrastructure		
75	Education infrastructure	264 594 864
76	Health infrastructure	145 716 641

ANNEX 4. EX-ANTE VERIFICATION OF ADDITIONALITY FOR THE PERIOD 2007-2013

Article 15 of the European Council regulation No 1083/2006 sets forth the additionality requirement of EU contribution from Structural Funds. The requirement stipulates that this contribution shall not replace public or equivalent structural expenditure by a Member State, i.e. structural assistance should be additional to that expenditure – otherwise the Structural Funds contribution to a Member State can be reduced.

For regions covered by the Convergence objective (including Estonia as a whole), the European Commission and the Member State shall determine the level of public or equivalent structural expenditure, which the Member State shall maintain in all the regions concerned during the programming period. As a general rule, this level of expenditure should be at least equal to the amount of average annual expenditure in real terms attained during the previous programming period.

During the period of 2007-2013 the verification of additionality must be verified three times:

- ex-ante verification of additionality is undertaken together with preparation of the National Strategic Reference Framework and its resulted are presented within the strategic document;
- the mid-term evaluation of additionality will be performed in 2011;
- the ex-post verification of additionality will need to be performed by end of June in 2016.

Ex-ante verification

In the table on the next page there are the results of Estonian ex-ante verification of the additionality for period of 2007-2013 presented. The annual average reference level of national eligible spending for the period 2007-2013 in real terms (2006 prices) will be 1315.6 million euros. The level of expenditure will be on average ca 7.8% higher than in the reference period of 2004-2005 (1213.5 million euros).

Thus, the ex-ante additionality verification for 2007-2013 has shown that Estonia will be in compliance with the additionality requirements set forth in the Article 15 of Council regulation No 1083/2006. The share of EU financing will represent *ca* 81% of the total EU expenditure in 2007-2013.

Mid-term evaluation

In the mid-term evaluation Estonia has to attest that the required level of expenditure agreed during the ex-ante verification has been maintained in 2007-2010. The timetable for evaluation is as follows:

- By July 31, 2011 the yearly and aggregated tables with 2007-2009 final and 2010 preliminary figures will be presented by Estonia to the European Commission;
- By October 31, 2011 Estonia presents the methodology that has been corrected based on Commission's comments;
- By December 31, 2011 all other kind of additional information has to be presented.

Ex-post verification

During the ex-post verification of additionality Estonia has to verify that the required level of expenditure agreed during the ex-ante verification has been maintained for the whole period of 2007-2013. The timetable for evaluation is as follows:

- By January 31, 2016 the yearly and aggregated tables with 2007-2013 final figures will be presented by Estonia to the European Commission;
- By March 31, 2016 Estonia presents upon need the methodology that has been corrected based on Commission's comments;
- By June 30, 2016 all other kind of additional information has to be presented upon request.

TABLE: VERIFICATION OF ADDITIONALITY FOR 2007-13 CONVERGENCE OBJECTIVE IN ESTONIA – EX ANTE VERIFICATION TABLE
Summary financial table of public or other equivalent structural expenditure in Convergence objective regions (EUR millions*, 2006 prices)

	Annual average in 2007-2013 NSRF (ex ante)						Annual average in 2004-2005 SPD (actual)					
	Total	Of which public companies	OPs		Not EU co-financed	TOTAL	Total	Of which public companies	SPD		Not EU co-financed	TOTAL
	Nat. + EU	Nat. + EU	EU	Nat.	Nat.	Nat. + EU	Nat. + EU	EU	Nat.	Nat.	Nat.	Nat.
1	2	3	4	5	6	7= 5+6=2-4	8	9	10	11	12	13=11+12=8-10
Basic infrastructure	**586 028 305**		**61 773 428**	**35 374 251**	**488 880 626**	**524 254 877**	**489 593 620**		**7 661 419**	**3 853 867**	**478 078 334**	**481 932 201**
Transport	209 211 917		8 184 548	5 975 682	195 051 687	201 027 369	195 147 823		6 349 026	2 621 253	186 177 544	188 798 797
Telecommunications & information society	46 466 976		7 537 221	204 147	38 725 608	38 929 755	36 040 254		183 640	80 139	35 776 475	35 856 614
Energy	196 722 154		10 912 552	0	185 809 602	185 809 602	171 623 803		0	0	171 623 803	171 623 803
Environment & water	73 226 328		12 170 645	22 216 868	38 838 815	61 055 683	57 019 403		1 037 414	1 118 805	54 863 184	55 981 989
Health	60 400 930		22 968 462	6 977 554	30 454 914	37 432 468	29 762 337		91 339	33 670	29 637 328	29 670 998
Human Resources	**666 920 155**		**103 334 955**	**15 711 545**	**547 873 655**	**563 585 200**	**530 740 703**		**8 359 253**	**3 374 403**	**519 007 047**	**522 381 450**
Education	555 612 015	**N/A**	35 451 870	3 250 783	516 909 362	520 160 145	486 425 763	**N/A**	4 229 031	1 194 535	481 002 197	482 196 732
Training	45 296 082		18 565 385	3 566 888	23 163 809	26 730 697	27 956 611		3 380 384	1 771 910	22 804 317	24 576 227
RTD	66 012 058		49 317 700	8 893 874	7 800 484	16 694 358	16 358 329		749 838	407 958	15 200 533	15 608 491
Productive environment	**111 453 533**		**48 534 488**	**1 860 385**	**61 058 660**	**62 919 045**	**62 457 805**		**4 215 123**	**1 453 086**	**56 789 596**	**58 242 682**
Industry	47 252 564		40 024 113	832 761	6 395 690	7 228 451	9 344 242		2 745 480	963 205	5 635 557	6 598 762
Services	0		0	0	0	0	0		0	0	0	0
Tourism	64 200 969		8 510 375	1 027 624	54 662 970	55 690 594	53 113 563		1 469 643	489 881	51 154 039	51 643 920
Others	**221 391 624**		**56 530 848**	**9 333 796**	**155 526 980**	**164 860 776**	**156 606 267**		**5 668 463**	**2 255 243**	**148 682 561**	**150 937 804**
Total	**1 585 793 617**		**270 173 719**	**62 279 977**	**1 253 339 921**	**1 315 619 898**	**1 239 398 395**		**25 904 258**	**10 936 599**	**1 202 557 538**	**1 213 494 137**

* The exchange rate is fixed at 15,6466 EEK/EUR.