



**Expert evaluation network
delivering policy analysis on the
performance of Cohesion policy 2007-2013
Year 2 – 2012**

**Task 2: Country Report on Achievements of
Cohesion policy**

Estonia

Version: Final

Tarmo Kalvet

**Ragnar Nurkse School of Innovation and Governance
Tallinn University of Technology**

**A report to the European Commission
Directorate-General Regional and Urban Policy**

Contents

Executive summary	3
1. The socio-economic context.....	6
2. The regional development policy pursued, the EU contribution to this and policy achievements over the period.....	7
The regional development policy pursued.....	7
Policy implementation	8
Achievements of the programmes so far.....	11
3. Effects of intervention.....	20
4. Evaluations and good practice in evaluation.....	22
5. Further Remarks - New challenges for policy.....	28
References.....	30
Interviews.....	32
Annex 1 – Tables.....	33

List of abbreviations

- AIR Annual Implementation Report
- ERAC European Research Area Committee
- ESTES Estonian Evaluation Society
- FEI Financial Engineering Instrument
- NSRF National Strategic Reference Framework
- OP Operational Programme
- SEN Special Education Needs

EXECUTIVE SUMMARY

The remarkably rapid economic growth in Estonia was reversed following the financial crisis of 2008. But since 2010 the Estonian economy has been on the road to recovery. GDP growth was 7.6% in 2011, led mainly by the rapid growth in manufacturing. The central government budget showed a surplus once again in 2011, this after three consecutive years of deficit. Local government revenues, which declined considerably during the crises, have also begun to show an increase, although the recovery rate is slower in less developed regions.

There are no regional Operational Programmes (OPs); Estonia constitutes a single NUTS 2 region. The OP for the Development of Economic Environment has a community-funded budget of EUR 1,400 million and the OP for the Development of Living Environment has an EU-funded budget of EUR 1,500 million. After an opportunity arose to carry out energy sector development measures by employing a larger share of national funding sourced from Estonia's CO₂ quota sales, EU funding allocated to this area was reduced by EUR 58.4 million and redirected mainly (EUR 48.8 million) to enterprise support measures.

The inability of SMEs to obtain finance due to the credit crunch has been directly addressed through the use of ERDF funds. For the period 2007-2013 Financial Engineering Instruments (FEIs) funded by the ERDF in Estonia are largely related to the innovation and growth capacity of enterprises (EUR 100.9 million; or 7% of the total budget of the OP for the Development of Economic Environment). Overall, the FEIs targeted important market failures and provided additional options to existing private sector instruments.

There are no specific measures, co-financed by the ERDF, tackling the issue of youth unemployment.

Analysis of financial data for 2011 on the policy fields, based on the certified eligible expenditure of beneficiaries, revealed an implementation rate (expenditure relative to allocation) of 39.4%. The average implementation rate for OP for the Development of Economic Environment was 43.4% and for the OP for the Development of Living Environment 35.6%. The overall rate for commitments had increased by 12.8% percentage points in 2011 and currently stands at 86%.

Priorities with the lowest implementation and commitment rates include:

- 'Development of water and waste management infrastructure'. The implementation rate (4.6% in 2010) had increased to 22.9% at the year-ending 2011 and to 34.5% by the end of August 2012.
- 'Enhancing the competitive ability of Estonian R&D through research programmes and modernisation of higher education and research institutions'. The implementation rate (17.7% in 2010) had increased to 24.0% at year-ending 2011 and to 39.1% at the end of August 2012.

The overall assessment on the implementation of the ERDF and Cohesion Fund is positive. The main reasons for the delayed implementation of programmes have largely remained the same since 2010, namely:

- Reduction of the co-financing capacity of beneficiaries;
- Implementation delays or even cancellation of contracts and delays occasioned by litigation;

- Increased construction costs, rendering original estimates and plans invalid;
- Longer than expected completion time of projects.

Initiatives have been undertaken in order to address these challenges and to reduce delays in implementation.

Enterprise support and research, technological development and innovation

The achievements were in line with the targets set and objectives of the interventions. Progress was most visible in:

- Inducing private sector investment into new technologies and engineering;
- Investment in innovation by companies;
- Internationalisation of Estonian enterprises;
- Private sector R&D investment induced by projects supported; and
- Support to the SMEs with FEIs.

On R&D, progress was evident in the improvement of the research and higher education study environment and in increasing the international competitiveness and business focus of R&D supported.

Under-performance was apparent in two areas: 'Ensuring the competitive and sustainable development of the Estonian tourist industry' and the 'Thematic R&D programmes'.

Transport and communications

One project was completed in 2011 but no evaluation is at present available regarding its impact. More general impact indicators show that although the number of passengers in regional ports and airports had grown rapidly in earlier years and continued to do so in 2011, the demand for public transport services declined. This has made the objective set out for use of public transport in 2015 to be unrealistic. Average travel time did not diminish in 2011, due to rail projects still being under construction and speed limits still being applied. There was no reduction in 2011 in the number of casualties from accidents on sections of road and road junctions which had been improved and these remained at their 2007 level.

Environment and energy

The outcomes accord with the targets and policy objectives set and are reported to be having the intended effects. However, there were significant delays in initiating projects. Only moderate progress was visible on the 'development of water and waste management infrastructure'. Serious attention needs to be paid to the implementation of environmental measures, where the ability of funding recipients to guarantee self-financing together with the litigiousness associated with the public procurement process, can lead to divergences from initial plans.

Territorial development

Although progress is reported, the indicators available relate mainly to output, making it almost impossible to assess results and impacts.

The rate of commitments for the **Estonia-Latvia territorial cooperation programme** was 82% according to the Annual Implementation Report (AIR), but further research is needed on problems of reconciling data in the AIR and in the European Commission database, which are different. It is not possible to analyse the impact of the programme as the AIR lacks (qualitative) analysis on

achievements, and the indicators chosen reflect programme operations but are not appropriate for identifying outcomes and effects.

Five new evaluations were made publicly available between October 2011 and October 2012, including the mid-term evaluation of all OPs at the national level. This evaluation concluded that the funds were used to achieve the objectives set and that they had contributed to Estonian economic development and competitiveness and to counteracting the effects of the economic crisis. The evaluation does not propose any reallocation of resources between priority axes. Four evaluations focus on R&D and innovation measures. The overall conclusions were that the measures were effective in achieving the objectives of the respective strategies. However, several evaluations criticised the existing system of indicators. Steps have been taken to address these concerns.

Integration between the evaluations and policy planning was furthered by internal reorganisation in the Ministry of Finance. Some evaluation personnel were moved to the State Budget Department so that the results of evaluations could feed directly into policy planning. The Ministry of Economic Affairs and Communications and the Ministry of Finance continue to be the best example of how evaluations undertaken have fed into policy, but significant positive developments also occurred in the Ministry of Education and Research in 2011.

Extensive investment co-financed by the ERDF and Cohesion Fund continued to take place in Estonia that would not have been possible without this support given the austerity measures implemented. In addition, enterprises have benefitted from the FEIs supported which have been in place since 2009. Regional differences remain significant. However, the AIRs fall short of analysing the development of the different regions in Estonia. There is a continuing need for additional evaluations and studies with regard to territorial development and the environment.

1. THE SOCIO-ECONOMIC CONTEXT

Main points from previous country reports (see Kalvet 2011, pp. 5-6 and Kalvet 2010, pp. 5-6):

- Estonia has a successful converging economy with close links with other Nordic economies and with high rates of growth in productivity and GDP per head over the 2000-2007 period.
- Growth was reversed after the financial crisis of 2008, the economy experiencing one of the most severe contractions anywhere in the world.
- The Estonian economy started to recover in 2010 (See Excel Tables 1 and 2).
- The main challenge Estonia faces was how to turn the earlier domestically-led growth into export-led growth and increase the competitiveness of its enterprises in global markets.
- Regional differences, in the standard of living and competitive ability of different counties especially, are significant. Regional problems are most acute in North-East Estonia (Ida-Viru County), a region that was industrialised after World War II with the emphasis on heavy industries. Economic development currently is concentrated in the north in Harju County.
- Contraction of the economy and wages, and increased unemployment reduced the income of local governments. As part of fiscal restraint measures, tighter controls were applied to local government finances and borrowing by the central government. Less developed regions have been affected more than others.

Developments in 2011

The economic recovery that began in 2010 continued in 2011. GDP growth was 7.6% in 2011, led mainly by the rapid growth in manufacturing. The value added in manufacturing grew mainly as a result of growth of exports; the manufacture of computers, electronic and optical products contributed most to this growth. In the latter part of 2011, growth of construction and ICT activities was of major importance. Domestic demand increased by 11% in 2011, due mainly to the fast growth of gross capital formation and most especially business-investment in transport equipment and machinery. In 2011, exports of goods and services grew by 25% in real terms and of goods alone by 32% (Statistics Estonia 2012a).

The central government budget was in surplus in 2011 after three successive years of deficit (Statistics Estonia 2012b).

Northern Estonia and Southern Estonia contributed most to overall GDP-(61% and 17%, respectively) (Annex Table A), dominated by two counties: Harju county (43% of overall population, contribution to GDP of 61%) and Tartu county (11% and 10%, respectively) (Annex Tables B and C).

Regional challenges, however, remained unchanged: the concentration of economic development in Harju County, especially around the capital city (Tallinn), which is the country's industrial, financial and commercial centre as well as the main recipient of foreign direct investment. Employment (Annex Table D) and income indicators (Annex Table E) in Harju County continued to exceed the national average, encouraging migration to the region. Regional problems were most acute in North-East Estonia (Ida-Viru County) where unemployment, for example, was 20.3% in 2011 (Annex Table F, see also Annex Table G on poverty).

Due to the improved economic situation (growth in wages, increased employment) the income of local governments also improved (e.g. personal income tax revenue increased from EUR 585 million to EUR 619 million; Ministry of Finance 2012a), although the recovery rate was slower in less developed regions.

2. THE REGIONAL DEVELOPMENT POLICY PURSUED, THE EU CONTRIBUTION TO THIS AND POLICY ACHIEVEMENTS OVER THE PERIOD

THE REGIONAL DEVELOPMENT POLICY PURSUED

Main points from previous country reports (see Kalvet 2011, pp. 6-7 and Kalvet 2010, pp. 6-11):

- The main focus of policy was on developing human resources, a knowledge-based economy and basic infrastructure, increasing the effectiveness of environmental protection and developing the energy sector, enhancing local development; and increasing national administrative capacity (Estonian National Strategic Reference Framework 2007-2013 [NSRF 2007], pp. 58-64).
- The headline objective is fast and sustainable development that is also balanced; the central objective of the current Regional Development Strategy 2005-2015 is to make all regions attractive places to live and work.
- There are no regional OPs because Estonia is a single Convergence Objective region.
- The total allocated funding for Estonia for the period 2007-2013 from the Structural and Cohesion Funds was EUR 3,400 million. The OP for the Development of Economic Environment has an EU-funded budget of EUR 1,400 million and the OP for the Development of Living Environment one of EUR 1,500 million (see Excel Table 3).
- The OP for the Development of Economic Environment focuses on enhancing the enterprise sector and improving the national R&D and innovation system. EUR 424 million (30% of the community-funded budget of the OP) was allocated to innovation and the growth capacity of enterprises; EUR 310 million (22%) to enhancing the competitiveness of Estonian R&D and higher education institutions; and EUR 636 million (44%) to development of the transport system.
- The OP for the Development of Living Environment is focused mainly on the development of water and waste management infrastructure (EUR 626 million, 39%); integrated and balanced development of regions (EUR 389 million, 24%); and the development of education, health, and social welfare infrastructure (EUR 382 million, 24%).
- Estonia also participates in seven European territorial cooperation programmes financed by the ERDF. The Estonian budget for these activities was EUR 52.4 million, dominated by two programmes where territorial co-operation with Latvia, Finland, and Russia is prioritised. The focus of the Estonia – Latvia 2007-2013 programme is on improving the enterprise environment (31% of the programme budget) and territorial development (20%) (see Excel Table 3cbc).

Developments in 2011

In 2011, the allocation to the development of energy was reduced by EUR 58.4 million (3.7% of the total budget of the initial OP for the Development of Living Environment) and redirected mainly

(EUR 48.8 million) to enterprise support measures. The change was made because of the ability to use a larger share of national funding (received from the Estonian CO₂ quota sales) for energy support as well as the need for additional funds for enterprise support. The latter was also identified in the evaluation carried out in 2009 (see Kalvet 2010, pp. 22-23).

The inability of SMEs to obtain finance due to the credit crunch has been directly addressed through the use of ERDF finance. The private market in Estonia does not offer adequate capital to entrepreneurs who lack sufficient collateral and/or sufficient level of self-financing and an appropriate financial history. These issues have become much more acute as a result of the global economic crisis, as credit providers became more conservative. FEIs addressed these market failures. Following the global economic crisis, additional measures were introduced, most importantly the "Additional support programme of the availability of entrepreneurs' loan capital" with EUR 43 Million support from the ERDF. For the period 2007-2013 FEIs funded by the ERDF were largely related to the innovation and growth capacity of enterprises (EUR 100.9 Million; 7% of the total budget of the OP for the Development of Economic Environment). Overall, FEIs were targeted at correcting significant market failures and provided additional resources to existing private sector finance. Funds allocated from the ERDF to FEIs have been put into active use (see Kalvet 2012 and Kalvet et al. 2012 for details). The considerable resources received from the ERDF and Cohesion Funds had been important in countering the recession and in helping to simulate recovery (see sections 3 and 4 for details).

There are however no specific measures, co-financed by the ERDF for tackling the issue of youth unemployment.

POLICY IMPLEMENTATION¹

Main points from previous country report (see Kalvet 2011, pp. 7-10):

- The implementation rate² was 34.0% for ERDF and 11.1% for the Cohesion Fund at the end of 2010.
- The implementation rate was 25.6% for the OP for the Development of Economic Environment and the OP for the Development of Living Environment, 32.0% for the OP for the Development of Economic Environment and 19.1% for the OP for the Development of the Living Environment.
- The commitment rate was 73.2% for the ERDF and Cohesion Fund together.
- The priority axes with the lowest commitment and implementation rates were the 'Development of water and waste management infrastructure' (the low implementation rate of the Cohesion Fund was largely due to this measure) and 'Enhancing the competitive ability of Estonian R&D through research programmes and modernisation of higher education and research institutions'.

¹ The indicators used in this section come from the AIR for 2011, which relate to the situation up to the end of 2011. A more up-to-date view of the aggregate position (though not of the situation in the different policy areas) is presented in the Synthesis Report for 2012 of the Expert evaluation network delivering policy analysis on the performance of Cohesion policy 2007-2013 which is based on data for payments from the ERDF and Cohesion Fund up to the end of 2012, i.e. after the present report was completed.

² Measured by total amount of certified eligible expenditure paid by beneficiaries, divided by total funding of the OP (European Union and national).

- According to the AIRs, the content of the programmes had been implemented in accordance with the OPs. The AIRs expressed concerns about the seven unlaunched measures of 'Enhancing the competitive ability of Estonian R&D through research programmes and modernisation of higher education and research institutions' and of priority axis 1 of the OP for the Development of Living Environment 'Establishment of waste stations' (waste-treatment sites).
- The main obstacles to progress in implementation were the ability of funding recipients to guarantee co-financing, the litigiousness of the public procurement process and fluctuations in the price of public construction contracts.
- While the commitment rate for the Estonia-Latvia cross-border programme was 63%, the implementation rate was 14%; for priority axis 1, the implementation rate was only 3.6% because of the low interest in participating from the Estonian side, the low involvement of private businesses and, more generally, the economic crisis and budget constraints.

Developments in 2011

Comparing commitment rates up to the end of 2011, further progress was achieved as regards the OP for the Development of Economic Environment and the OP for the Development of the Living Environment, as evidenced by the following:

- The overall commitment rate increased by 13 percentage points to 86%;
- The commitment rate for enterprise support increased by 18 percentage points (and for support of innovation of SMEs within this by 31 percentage points);
- For transport, the environment and energy and territorial development, commitment rates increased by 10 percentage points (see Excel Table 4).

The priority axes with the lowest commitment and implementation rates were (for 2010, see Kalvet 2011, pp. 8-9; for 2011 and for 30 August 2012, see Annex Table H):

- 'Development of water and waste management infrastructure': the implementation rate (4.6% in 2010) increased to 22.9% at year-end 2011 and to 34.5% by end August 2012. 83.7% of EU allocations were committed by the end of August 2012.
- 'Enhancing the competitive ability of Estonian R&D through research programmes and modernisation of higher education and research institutions': the implementation rate (17.7% in 2010) increased to 24.0% at year-end 2011 and to 39.1% by end August 2012. 91% of EU allocations were committed by the end of August 2012.

The overall assessment of the implementation of the ERDF and Cohesion Fund, based on the financial progress reported in the AIRs for the Development of Economic Environment OP and the Development of the Living Environment OP, is positive. The target levels (so-called N+2/N+3 levels) set in the OPs have been achieved for 2011. The overall target level – an implementation rate of 45% by end- 2011 – is higher and was not achieved for several priority axes, especially relating to those funded from the Cohesion Fund³ (see below).

³ Priority axis 1 "Development of water and waste management infrastructure" of the OP for the Development of Living Environment and Priority axis 3 "Transport investments of strategic importance" of the OP for the Development of Economic Environment.

The programmes were implemented in line with the OPs. Of the measures planned in the two OPs, the 2011 AIR as well as earlier AIRs expressed concern about the following axes:

- Implementation of priority axis 2 of the Development of Economic Environment OP 'Enhancing the competitive ability of Estonian R&D through research programmes and modernisation of higher education and research institutions': during 2011 most of the measures planned for support of R&D activities in priority technology areas were started and the implementation of the final measure planned began in 2012. A possible problem for all stakeholders involved concerned the launching of measures within a short time frame and the temporary, but significant, increase in the administrative burden. If funds remain underused, there may be insufficient time to reallocate them to other uses.
- Implementation of priority axis 1 of the OP for the Development of Living Environment 'Development of water and waste management infrastructure': Compared to 2010, several projects were successfully launched and completed during the reporting period. However, there are projects from the previous rounds of applications for funding which still have not been launched – increasing business risk, insufficient self-financing, and lack of raw materials (waste streams) all affected their implementation. Steps have been taken to address these problems (see below).

The fact that these measures were launched only in 2011 and 2012 also explains the low implementation and commitment rates of the priority axes. No major concerns were raised on other measures where rates were low in 2011. These mainly concern investment in infrastructure where preparatory and implementation processes are lengthier.

The main reasons for delays in implementing programmes have remained largely the same since 2010:

- Beneficiaries have been affected by the economic crisis, and consequently co-financing capacity has been reduced.
- Completion of the projects will take more time. The project approval process occurs in several time-consuming stages. The public procurement process tends to consume more time than expected.
- Some beneficiaries have not respected procurement regulations, either because of a lack of competence or mistaken interpretation of the legislation.
- Due to the recession, there has been intense competition among suppliers, especially regarding infrastructure construction. Sometimes attempts to lower costs have resulted in lower quality, implementation delays, or even cancellations of contracts. Increasingly, procurement decisions are taken to court by competitors, causing further delays.
- Construction prices have started to rise, and plans made during the recession may not be valid any longer.

Several initiatives have been undertaken to tackle these problems and to speed up implementation; these include:

- Increasing public procurement staff.
- Provision of additional training on public procurement rules, eligible costs and the like.
- Provision of additional (including national) funds to address the problem of insufficient co-financing. For example, in the sub-axis of the development of waste handling infrastructure,

the procurement for projects organised in 2011 have, after an interim period of lower costs of procurement due to the recession, proved at times to be over 30% more expensive than planned. In cases where the increase of project costs occurred as a result of an open public procurement procedure, the beneficiary can apply for up to an extra 30% to cover the increase in cost. (AIR for the OP for the Development of Living Environment 2012, p. 18).

- Continuous and detailed monitoring of implementation in the problem areas and development of contingency plans (e.g., plans for reallocating funding).

There was also further progress as regards the cross-border cooperation Estonia – Latvia Programme. According to EC data, commitments increased by EUR 5 million⁴ to 76.4% of the overall allocations⁵. Analysis by policy areas shows, however, that in several areas allocations have declined compared to year-end 2010, e.g. in environment and energy by 64 percentage points (see Excel Table 4cbc). Further research is needed on problems of reconciling the data in the AIR and in the EC database, which differ. No steps were in 2011 to address the issue of low involvement of private businesses, which was reported to be the main problem in implementing the Programme (2012, pp 22-23).

ACHIEVEMENTS OF THE PROGRAMMES SO FAR

Main points from previous country report (see Kalvet 2011, pp. 10-17):

- As regards support for improving the **enterprise environment**, the output and results of funding were generally in line with the targets and objectives set. Notable progress was observed in productivity-increasing investment, the technological modernisation of businesses and internationalisation.
- As regards R&D and higher education infrastructure, only very limited qualitative information was provided. Clear progress was evident in improving the research and higher education study environment and in increasing the international competitiveness of R&D.
- Under-performance was noted in two areas: ensuring the competitive and sustainable development of the Estonian tourist industry and the implementation of R&D programmes.
- In **transport and communications**, it was expected that the targets set for 2015 would be achieved. Nevertheless, many of the indicators relate only to the number of projects. Of the two more general impact indicators, the target growth in the number of passengers in regional ports and airports was achieved, while the total number of passengers carried by public transport was probably not attainable by 2015.
- In **environment and energy**, there was considerable progress in some sub-areas, like preparedness for environmental emergencies and the maintenance of biological diversity. The result indicators of the largest measures relating to the development of water and waste management infrastructure, the treatment of contaminated sites and the closure and clean-up of waste suggested only limited progress because of significant delays in starting the projects.

⁴ The AIR for the OP of Estonia – Latvia Programme states, however, that additional "ERDF commitment to the projects was EUR 6.3 million" (p. 6).

⁵ The AIR for the OP of Estonia – Latvia Programme states, however, that the level of commitments stands at 82% (p. 6).

- In the case of **territorial development**, the indicators consist predominantly of output indicators (9 of the 12), making it almost impossible to assess results and impacts. The main achievements were related to the number of local public-service infrastructure units which had been improved, business infrastructure facilities created or improved and the modernisation of vocational schools. In the case of investment in health infrastructure, no projects were completed in 2010.
- The discussion from a **regional perspective** is very limited in both AIRs. Nothing significant can be deduced about regional development from what is reported on outcomes, results and impacts.
- It was not possible to assess the effects of the **Estonia–Latvia Programme 2007—2013** as the AIR (2011) mainly describes the operational side of the programme; (qualitative) analysis of achievements is very limited and the indicators used are not appropriate for identifying outcomes and the impact of the Programme.

Developments in 2011

What follows is a review of the achievements made by the programmes funded by the ERDF and Cohesion Fund in the current programming period up to year-ending 2011 and in particular since the 2011 country report. The primary sources of information are the AIRs for 2011 and relevant evaluations or research studies carried out. However, the AIRs are very indicator-driven and lack qualitative analysis and references to other studies and evaluations, making it difficult to summarise programme achievements in several policy areas. Some new evaluations have become available since the preparation of the 2011 report, but in a number of policy areas it continues to be the case that no evaluations are available. Nevertheless the main outcomes of expenditure in different policy areas as indicated in the AIRs are presented below and related to the quantitative evidence.

The AIR for the Development of Economic Environment OP (2012) reports notable progress and achievements by end-2011 in **enterprise support and research, technological development and innovation (RTDI)** (see Annex Table I for categorisation). Achievements (based on progress in meeting the targets set for indicators) and financial progress as regards enterprise support are good but more modest for R&D and higher education infrastructure.

In the case of enterprise support, achievements were related to better access to the capital required for productivity-increasing investment, the technological modernisation of businesses and successful internationalisation.

Indicators reveal progress in the following areas:

- Inducing private sector investment in new technologies and engineering amounting to EUR 125 million by the end of 2011, compared to EUR 80 million in 2010, with a goal of EUR 134 million in 2015;
- The “internationalisation” of enterprises as reflected in the number of firms involved in exporting, which was 10,538, compared to 9,421 in 2010, which already exceeded the target set of 8,700 for 2015⁶;

⁶ For comparison, the total number enterprises, which were economically active in 2010 (having net sales, expenditure, etc.) was 61,293 (Statistics Estonia 2012c).

- “Innovation investment” by companies⁷ amounted to 1.8% of turnover in 2010⁸, but was affected by the global crisis, and the overall goal of 2.6% set for 2016 might not be attainable. The share of revenue from sales of new products and services was 28.6% in 2010, above the 25% target for 2016;
- Private sector R&D investment induced by the projects supported stood at EUR 73.8 million, up from EUR 56.2 million in 2010 and exceeding the 2015 target of EUR 38.4 million⁹.
- The overall positive developments are also reflected in the value-added per employee of companies receiving support, which increased to EUR 20,490 in 2010¹⁰ (EUR 17,400 in 2009). Although still low as compared with the 2015 target of EUR 32,000, it has been greatly affected by the global economic crisis. The 2010 AIR concluded that achieving the target level by 2015 was unrealistic, but the 2011 AIR is more optimistic about achieving the target.

For R&D and higher education infrastructure only very limited qualitative information is provided. Progress is reported in improving the research and higher education study environment and increasing the international competitiveness and business focus of the R&D supported.

Progress in output, results and impacts of the intervention at end-2011 can be summarised as follows:

- Support for R&D is focused on high research quality with commercial potential as reflected in the growth of government budget appropriations and outlays for R&D in priority socio-economic areas. Outlays increased in priority socio-economic fields 16.7% of the total in 2007 to 36.5% in 2010¹¹. Five of such thematic R&D programmes are operational (one in 2010 and a target of six by 2015);
- There were 322 R&D work places in new or upgraded facilities in R&D institutions (278 in 2010) with a target of 800 by 2015; the number of students using new or upgraded facilities at higher education institutions remained at 2,301, well above the 2015 target of 1,500;
- 17,061 square metres of new or upgraded facilities in R&D institutions (5,766 in 2010); the number of centres of excellence co-financed by the ERDF has increased to 12 (from the 7 centres operational since 2009) exceeding the 2015 target of 7 centres.

The recent evaluation on R&D and higher education has highlighted the inappropriate nature of the indicators, the target setting and the monitoring system for assessing the contribution made by Structural Funds support to broader strategic goals. The evaluation concluded that the targets for output and result indicators were often set too conservatively, meaning that they would be comfortably attained. At the same time, the strategic objectives of the higher education and R&D strategies expressed in the NSRF will most probably not be reached (see Section 4 for details).

⁷ Measured by the share of innovation investment (obtaining knowledge, machinery and equipment, intra-company R&D, contracted R&D) in turnover.

⁸ Newest data available, Community Innovation Survey.

⁹ For comparison, private sector expenditure in R&D (intra- and extramural combined) amounted to EUR 133.9 million in 2010 (Statistics Estonia 2012c).

¹⁰ No data for 2011 is available yet.

¹¹ Government budget appropriations and outlays in Energy (5), Industrial production and technology (6) and Health (7). Nomenclature for the Analysis and comparison of scientific programmes and Budgets classification system is used by Eurostat.

While no measures were taken in this policy area explicitly to assist young people who were unemployed, extensive assistance had been provided to SMEs hit by the credit crunch. Two means used were loan funds (ERDF resources allocated of EUR 70.3 million) and two guarantee funds (amounting to EUR 30.6 million). The highest demand for those FEIs occurred in 2009 and 2010. For example, in 2009, KredEx guaranteed and financed 409 companies (with 24,000 employees in total) with subordinated loan and project-based loan resources totalling EUR 83 million (KredEx, 2010). In 2010, KredEx guaranteed and financed 470 enterprises (with 16,100 employees) with subordinated loans and credit lines totalling EUR 108 million (KredEx, 2011). However, in 2011 due to the more liberal credit policies of banks, the demand for FEIs decreased. KredEx guaranteed and financed enterprises with subordinated loans and credit lines totalling EUR 67.4 million (KredEx, 2012), a reduction of 37.6% (on FEIs in Estonia, see Kalvet 2012 and Kalvet et al. 2012 for details). The impact assessment of enterprise support measures carried out by the Ministry of Economic Affairs and Communications showed that clients of KredEx are mostly SMEs and that the beneficiaries have grown more than the control group (see Section 4 for further details). FEIs operated by KredEx can also be considered as good examples of policy measures that have helped companies overcome the impact of the economic crisis.

In 2011, under-performance in enterprise support and RTDI was apparent in two areas:

- Ensuring the competitive and sustainable development of the Estonian tourist industry: the increase in the export earnings of tourism¹² of 12.2% by end-2011 exceeds the 11.2% achieved by end-2010, but attaining the 55% increase expected by 2015 is unrealistic due to the impact of the economic crisis. The hoped-for decline in seasonality (visitors in the summer months relative to the total for the year) to 35% by 2015 did not occur; instead, seasonality declined only marginally to 38.5% from 38.6% in 2010¹³. However, the number of overnight visitors in accommodation increased to 5.8 million in 2011 as against 4.7 million in 2010 (the target is 7.1 million by 2015).
- The thematic R&D programmes are new, and developing them has turned out to be a demanding task. In 2011 five additional programmes were opened and the last one (ICT) was initiated in 2012. Delays were caused by it taking longer to prepare the programmes than was planned.

In the case of improving enterprise support and RTDI, it can be concluded that the output and results of funding were in line with the targets and the objectives of the interventions. Information on enterprise support is sufficiently detailed and additional qualitative information is provided to enable achievements to be assessed. As regards R&D and higher education infrastructure, the information provided is very brief. For both some statistical information for 2011 is not yet available and there is no indication of the regional effect of the measures.

For **transport and communications**, 16 projects were initiated in 2008-2009, 5 in 2010 and 8 in 2011. The Investment Plan was last amended in November 2010.

The output, results and impacts of the intervention at end-2011 can be summarised as follows:

¹² Measured by growth of export revenues from EUR 970 million (2005).

¹³ Tourism in Estonia is highly seasonal: shortages of accommodation may occur during summer, but average occupancy is low in the winter. Thus, it is important to measure the share of summer months (June–August) in all overnight stays.

- In addition to two projects (one road and one port project) that were completed in 2010, one additional project – a new multi-level railway overpass in Kaarepere, Jõgeva County, to replace the original railway crossing, which was prone to fatal accidents – was completed in 2011.
- Due to the rail projects under construction (7 as of 2011) and associated speed limits, average travel time increased as compared to 2010. The initial goal of the reduction of travel time by 45% of the 2007 level by 2015 is not considered realistic (29% decline in 2010, 15% in 2011);
- No reduction in accidents resulting in casualties on renewed sections of road and at junctions (85% reduction target by 2015) occurred in 2011 and the level remains the same as in 2007. Data for 2008-2010 shows a significant overall improvement (as reduction of 35-44%), but this might be due to other factors (e.g., speed limits due to construction work) and further impact assessment is needed;
- In total 32.5 km of new roads were opened in 2011 and 39.4 km of roads were reconstructed (compared with 14.6 km of new road and 117.3 km of reconstructed road in 2010). No target indicators have been set; no data are reported on time and financial savings from new and reconstructed roads.
- The number of passengers using regional ports and airports remained largely unchanged (212,200 in 2011, 214,500 in 2010), and hovers around the 2015 target of 214,000.
- The use of public transport (number of trips made using public transport¹⁴) declined further– to 150 million from 165 million in 2010 (180 million in 2009), making achievement of the 2015 target of 273 million unrealistic. The AIR states that there has been a decline in the number of public transport users in urban areas (who make up 80% of the total number), while the central government lacks policy tools to intervene and the projects supported focus on improving regional not urban transport connections (p. 84).

It is expected that the targets set for 2015 will be achieved for 9 indicators. Two targets previously expressed will not be attainable and one target – a reduction in travel time due to improved regional transport infrastructure – is claimed to be no longer relevant.

Analysis of the main achievements for 2011 for the **environment and energy** shows that considerable progress took place in some areas, for example:

- The share of recycled solid waste (excluding oil shale and agricultural waste) increased to 58% (as at end-2010, data for 2011 not yet available) as compared to 40% in 2009 and the 2015 objective of 60%.
- The share of biodegradable waste in total landfilled waste declined to 45% (2010, data for 2011 not yet available) as compared to 55% in 2009 and the 2015 objective of 30%.
- In the development of energy, both the capacity of electricity production from renewable energy sources (862 GWh in 2010, 1,160 GWh in 2011, with a target of 491 GWh for 2015) and heat generation from combined heat and power plants and boiler houses fuelled by renewables have expanded (no data yet for 2011; 5,215 GWh in 2010; with a target of 3,680GWh for 2015). However, substantial resources are invested from national funds in this area and only EUR 9.6 million from the ERDF. Current indicators are, therefore, too general and do not measure the contribution from the ERDF.

¹⁴ Measured by the total number of passengers carried by public transport.

Slower progress regarding some of the main measures by end-2011 can be noted:

- The 'Development of water and waste management infrastructure' has the largest budget (EUR 425 million). While there has been a significant increase in the number of properly functioning wastewater treatment plants (an increase from 29 in 2007 to 34 in 2010, but below the target of 49 by 2015) the result indicators show only limited progress—the number of people connected to sewage systems and public water supply (as a result of the projects carried out during this programming period) was 11,000 (10,000 in 2010) still far below the target number of 55,000 by the end of 2015. The additional number of people supplied with adequate quality drinking water was 22,000 (20,000 in 2010) as against a target of 100,000 by 2015.¹⁵
- The number of contaminated sites treated increased to 35 (31 in 2010; with a target of 53 by 2015).
- The number of non-environmentally friendly industrial waste dumps of the oil shale industry and oil shale based power industry (11 in 2007) that have been closed and/or cleaned up remained the same as in 2010: 11 closed and 4 of these were cleaned up.
- The number of environmentally inadequate non-hazardous waste landfills (39 in 2007) closed was 39 (as in 2010), but the number of those not cleaned up has declined to 12 (18 in 2010).
- No new or modernised environmental education support centres have been opened (target 5 in 2010, 15 in 2015), although projects are underway.
- The share of apartment blocks renovated with ERDF support in the total housing stock built before 1993 increased to 2.8% (1.6% in 2010), far below the 8% target for 2015, especially considering that ERDF resources will be run down by the end of 2012.

The 2015 targets for these important indicators are expected to be achieved (as projects are underway), except as regards connections to main drainage and public water supply and the apartment blocks renovated, though the latter is largely due to the under allocations of funding and/or the setting of an overly ambitious target.

Overall FEIs have worked well, given that private finance - ordinary loans - has shorter repayment periods and higher interest rates. On financial resources obtained from ERDF (EUR 17 million) and the securing of an additional loan from the Council of Europe Development Bank (EUR 32 million), KredEx has enabled banks to grant more favourable loans with longer repayment periods (up to 20 years) with the aim of achieving energy sustainability through reconstruction. Loans have mainly been used for insulation of walls and roofs and the renovation of heating systems in apartment buildings. The future energy saving estimated to result from reconstruction is 39.3% (KredEx 2012, p. 26).

¹⁵ Amendments to the control and target level of the result indicator regarding public water supply was submitted to the EC in June 2012. It was admitted that the realisation of all additional connection possibilities created as a result of projects will take longer than the end of 2015 as the connection process comprises various activities: application for connection, issuing of technical terms and conditions, construction of the connecting party's own pipelines and the attestation of a connection contract. The proposed amendment aims to create better connection with the water infrastructure development measure. The new target level proposed on the number of people connected to public water supply is 30,000 (by 2015). An additional indicator proposed is the number of residents for whom connection points to the public water supply have been created. (12,500 in 2012; target level 45,000 for 2105).

Overall, outcomes are in line with the targets and policy objectives set and are having the intended effects. However, there are significant delays in starting the projects, and therefore progress towards achieving some of the targets set for 2015 has been slow. The delays in this policy area have been caused by difficulties of finding the necessary co-financing, public procurement being legally contested and prices of public building contracts fluctuating (see Section 2 above).

In the case of **territorial development**, according to the AIR for the Development of Living Environment (2012) OP, the main achievements for 2011 were:

- In the sub-axis of ‘Development of local public services’, the number of local public-service infrastructure units which have been improved almost doubled over the year to end-2011 (from 77) to reach 135 (the target for 2015 is 225). Some 51 local facilities have diversified their use,¹⁶ up from 38 in 2010 and above the 50 planned for 2015. Some 164,600 people are reported to have benefited from this investment, considerably more than the 112,000 in 2010 and above the 2015 target of 120,000, but no details of the benefits concerned are provided.
- In the sub-axis of ‘Strengthening of the competitiveness of regions’, the main achievement was related to the number of companies that have benefited from the business or visitor infrastructure created – 159 up from the 145 in 2010, but only half of the 300 targeted for 2015. The output indicator reported 7 business infrastructure facilities being created or improved (the target for 2015 is 50), down from 20 in 2010 (as final reports of the projects were used for counting instead of applications). The number of projects enhancing regional traditional know-how increased to 10 (3 in 2010; 30 targeted for 2015). The number of visitor sites created or qualitatively improved increased to 64 (26 in 2010; 100 targeted by 2015).
- In the sub-axis of ‘Development of urban regions’, the number of people benefiting from investment projects increased marginally (from 618 in 2010 to 668 in 2011), far below the target of 5,000 in 2015. Output indicators show progress in the number of projects for the development of sustainable urban transport (3 in 2011, 2 in 2015; 10 targeted for 2015). The length of light traffic roads constructed increased to 9.5 km (from 7.6 km in 2010). No further progress is reported in increasing public green and recreation areas.

The indicators relating to the balanced development of regions predominantly concern output (9 out of 12), making it impossible to assess results and impacts. The three result indicators, moreover, need to be more detailed: while two of them relate to the number of individuals benefitting from the intervention, they ignore the scale of the benefits involved (e.g., in the intensity of infrastructure use). In addition, the indicator ‘Number of companies which have benefited from the business and visitor infrastructure’ is rather vague (compared, for example, with the impact on employment of the companies concerned). The problems with indicators are also admitted and discussed in the AIR for the OP for the Development of Living Environment (2012, p. 96).

In the development of education infrastructure, the main achievements in 2011 relate to:

- The modernisation of vocational schools, 16 schools being completed, up from 11 in 2010; with existing funds the target of 31 by 2015 will not be reached. The proportion of study

¹⁶ Measured by counting facilities having one or more additional functions after reconstruction (e.g. sports and leisure centres).

equipment upgraded in vocational schools rose by 41 percentage point to 58% in 2010 (90% being the target for 2015). The proportion of modern study places in such schools rose to 55%, above the target of 42% by 2015.

- The improvement of the study environment of Special Educational Needs (SENs) schools (through developing the relevant infrastructure and modernising facilities for students with SEN), the target of nine projects had been achieved by end-2011. The number of SEN students benefitting increased to 1,016 (up from 108 in 2010).

In the case of health infrastructure:

- No projects were completed in 2011 (nor in 2009 or 2010), and the newly built/reconstructed space used for the provision of acute care services has remained the same since 2009 (29,807square metres).
- The number of family and activity houses opened increased to 13 (up from 7 in 2010), but far below the target of 95.
- The new or reconstructed space for providing nursing and care services increased to 12,437 square metres (from zero in 2010) and the number of beds installed in the resulting space for nursing and care increased to 344.

It is reported that that the targets would be achieved by the end of the programming period in spite of significant delays associated with the considerable time taken for both the preparation and implementation of investment projects. Considering the size of the budget allocated to this policy area and the fact that indicators predominantly relate to output (9 of the 12), detailed qualitative analysis would be expected to be included in the AIRs for 2011. However, similar to AIR 2010, the information provided is very brief (1-1.5 page per priority axis) and focuses inordinately on the description of the projects undertaken.

Table 1 - Outcome and result indicators and main impact indicators in different policy areas as of December 2011 (unless otherwise indicated)

Policy area	Main indicators	Outcomes and results
Enterprise support and RTDI including ICT and increased access to finance by SMEs	Value added per employee of recipient companies increased to EUR 20,490 ¹⁷ in 2010 (EUR 17,400 in 2009). Although still low considering the 2015 target of EUR 32,000, it has been greatly affected by the global economic crisis. Share of revenue from sales of new products and services was 28.6% in 2010, above the 2016, 25% target.	<p>Inducing private sector investment in new technologies and engineering amounting to EUR 125 million, compared to EUR 80 million in 2010, with a goal of EUR 134 million in 2015.</p> <p>Private sector R&D investment, induced by the projects supported, stood at EUR 73.8 million, up from EUR 56.2 million in 2010 and exceeding the 2015 target of EUR 38.4 million.¹⁸</p> <p>The number of enterprises involved in exports increased to 10,538, compared to 9,421 end-2010, already exceeding the target set of 8,700 for 2015¹⁹.</p> <p>Five thematic R&D programmes are operational (1 in 2010; target of six programmes by 2015).</p> <p>322 R&D workplaces in new or upgraded facilities in R&D institutions (278 in 2010) with a target of 800 by 2015.</p> <p>17,061 sq.m. of new or upgraded facilities in R&D institutions (5,766 in 2010) with a target of 25,000 sq.m. by 2105.</p> <p>The number of centres of excellence co-financed by the ERDF has increased to 12 (in addition to 7 centres operational since 2009) exceeding the 7 centres target for 2015.</p>
Transport	<p>The demand for public transport services²⁰ declined further – to 150 million from 165 million in 2010; the 2015 target of 273 million will not be reached.</p> <p>Decrease of accidents, with human casualties or injuries, at renovated road sections and junctions (85% reduction goal by 2015) did not take place in 2011 and remains on 2007 level.</p>	<p>A new multi-level railway overpass in Kaarepere, Jõgeva County was completed in 2011.</p> <p>In total 32.5 km of new roads were opened in 2011 and 39.4 km of roads were reconstructed (compared with 14.6 km of new and 117.3 km of reconstructed in 2010). No target indicators have been set; no data is reported on the value for time and financial savings stemming from new and reconstructed roads.</p> <p>The number of passengers in regional ports and airports has remained stable (212,200 in 2011, 214,500 in 2010), and close to the 2015 target of 214,000.</p> <p>Due to the rail projects under construction (7 as of 2011) and associated speed limits, the travel time increased as compared to 2010. The initial goal of the reduction of travel time by 45% of the 2007 level by 2015 is not realistic (29% decrease in 2010, 15% decrease in 2011);</p>
Environment and energy	<p>Number of people connected to sewage systems and public water supply was 11,000 (10,000 in 2010) far below the targeted number of 55,000 by end-2015.</p> <p>Additional number of people supplied with adequate quality drinking water was 22,000 (20,000 in 2010) as against a final target by 2015 of 100,000.</p>	<p>Increase in the number of properly functioning wastewater treatment plants (increased from 29 in 2007 to 34 in 2010, but below target of 49 in 2015).</p> <p>The number of localised or treated contaminated sites increased to 35 (31 in 2010; target of 53 by 2015).</p> <p>The number of environmentally inadequate non-hazardous waste landfills (39 in 2007) closed was 39 (as in 2010), but the number of those not remediated has decreased to 12 (18 in 2010).</p> <p>The share of housing blocks renovated with ERDF support in the total housing stock built before 1993 increased to 2.8% (1.6% in 2010), far below 8% target of 2015, particularly since ERDF resources would be depleted by the end of 2012.</p>

¹⁷ Data for 2011 is as yet unavailable.

¹⁸ For comparison, private sector expenditure in R&D (intra- and extra-mural combined) amounted to EUR 133.9 million in 2010 (Statistics Estonia 2012c).

¹⁹ For comparison, the total number enterprises, which were economically active in 2010 (having net sales, expenditure, etc.) was 61,293 (Statistics Estonia 2012c).

²⁰ Measured by the total number of passengers carried by public transport.

Policy area	Main indicators	Outcomes and results
Territorial development	<p>Number of people who have benefited from investments: 164,600 (2011); 112,155 (2010); 120,000 (2015). No further details were available on the nature and the actual impacts of the benefits.</p> <p>159 companies benefited from business and visitor infrastructure, an improvement from the 145 in 2010, but only half of the 300 required by 2015.</p> <p>Number of SEN students benefitting increased to 1,016 (up from 108 in 2010).</p>	<p>The number of improved local public-service infrastructure units increased to 135 (77 in 2010; 225 target for 2015). No further details are available on results and impacts.</p> <p>51 local facilities diversified their use²¹, up from 38 in 2010 and above the 50 planned for 2015.</p> <p>The number of projects enhancing regional traditional know-how increased to 10 (3 in 2010; 30 being target for 2015).</p> <p>The number of visitor sites created or qualitatively improved increased to 64 (26 in 2010; 100 target level by 2015).</p> <p>The modernisation of vocational schools, 16 schools being completed: up from 11 in 2010; but with the existing funds the target of 31 by 2015 will not be reached.</p> <p>The share of study equipment upgraded in vocational schools rose by 41 percentage points to 58% in 2010 (90% being the target for 2015).</p> <p>The proportion of modern study places in vocational schools rose to 55%, above the target of 42% by 2015.</p> <p>The new/reconstructed space for providing nursing and care services increased to 12,437 sq. m. (0 in 2010) and the number of beds opened in the space built/reconstructed for the provision of nursing and care services increased to 344 (0 in 2010).</p>

Source: Author compilation based on the AIRs for the OP for the Development of Economic Environment (2012) and the OP for the Development of Living Environment (2012).

It was not possible to assess the effects of the Estonia–Latvia cross-border Programme:

- The 2012 AIR, similar to 2011 AIR, mainly describes the operational side of the programme, and proper (qualitative) analysis of the achievements is very brief.
- The indicators used are not informative. The mid-term evaluation of the programme (2010) states that major methodological issues have been identified in relation to the definition and use of the Programme performance indicators. Most notably, the current indicators reflect programme operations, but are not appropriate for identifying outcomes and the impact of the Programme (p. 33).
- Information is presented by axis and it is difficult to relate this to policy areas.

3. EFFECTS OF INTERVENTION

Main points from previous country report (see Kalvet 2011, pp. 17-18):

- EU funding had been mainly planned (as reflected in the OPs) and used to strengthen the economic and social system generally (as opposed to being concerned about the regional dimension), and improvements have taken place in economic and social cohesion.
- Territorially coherent development in Estonia has remained unachievable and regional disparities have continued to widen.
- The considerable financial resources received from the ERDF and Cohesion Funds have been important in countering the recession and in helping to simulate recovery.

²¹ Measured by counting facilities having one or more additional functions after reconstruction (e.g. sports and leisure centres).

- Assessing the wider effects of intervention on regional development in the light of economic developments in the country is difficult as the effects of many measures co-financed by the ERDF and Cohesion Fund will only become evident in the long run.

Developments in 2011

The latest additional evidence – from the commentary in the AIRs, the results of evaluations and research studies and information from interviews – continues to support the above conclusions.

Substantial investment co-financed by the ERDF and Cohesion Fund continued to take place (especially in transport, water and waste management) that would not have been possible without this support given national austerity measures implemented. In addition enterprises have benefitted from the financial engineering measures applied since 2009.

Furthermore, the multi-annual budget framework of the Structural Funds was instrumental in ensuring stable development of the higher education and R&D system, despite the financial crisis. The Structural Fund measures have contributed to overcoming key obstacles to the development of a more competitive R&D system. A key element of success has been the accumulation of experience and competences at all levels (Ministry, agencies and beneficiaries) of the R&D system.

However, regionally balanced development (as aimed for by the Regional Development Strategy for 2005-2015) has remained unachievable and regional differences continue to widen:

- The share of the population living in Harju County was 42.2% by end-2011 (and so above the base value of 41%, that was not intended to be exceeded). The internal migration of people into Harju County has been neither stopped nor reversed. Rather, inward migration has increased by 0.5% a year over the past few years (Annex Table C) and is expected to continue;
- As of 2011 no county had an annual average employment rate below 45% as intended. However, there are major imbalances between counties, and no improvements were evident over time (see Annex Table D).
- In five counties the average income per household member was below 70% of the highest income county (Harju) at the end of 2010. Although the figure has not fallen below 61% (the policy target), imbalances between counties remain, and no significant improvements are evident over time (Annex Table E).

In view of the competitive advantages of the different regions and the way the economic crisis has affected regions differentially, a further concentration of economic activity in Northern Estonia is likely to occur. While some evidence on projects supported by the ERDF and Cohesion Fund shows that the capacity of regions to sustain economic development and to improve the quality of life has been strengthened, the extent of the evidence available is limited.

4. EVALUATIONS AND GOOD PRACTICE IN EVALUATION

As at September 2011 the following evaluations relating to the ERDF and Cohesion Funds have been carried out and reported (see Kalvet 2011, pp. 18-20; Kalvet 2010, pp. 22-26):

- Two evaluations covering OPs at the national level: Evaluation of the OPs on the use of Structural Funds (2009) and Evaluation of the selection criteria of Structural Funds (2010);
- Impact assessment of enterprise support measures by National Audit Office (2010);
- Evaluation of the Estonia–Latvia Programme 2007-2013 (2010).

The following studies were reported to be in progress (see Kalvet 2011, pp. 18-20):

- Mid-term evaluation covering all OPs at the national level;
- Impact evaluation of entrepreneurship measures;
- Mid-term evaluation of R&D and higher education measures.

The main features of the strategy in place for evaluating the effects of intervention and integration into policy-making are the following:

- The importance of strategic planning in a holistic way and the inclusion of evaluations as part of the policy cycle has increased considerably with the accession to the EU;
- Evaluation activities are coordinated by the Ministry of Finance;
- Since 2008, evaluations have been coordinated by the plan “Programmiperioodi 2007-2013 struktuurivahendite hindamise korraldamise põhimõtted ja tööplaan”²²;
- Evaluations themselves are generally carried out by external organisations and quite often the inclusion of high-level foreign experts is requested in the tender documents;
- Evaluations undertaken have fed into policies; evidence-based policy planning where evaluations serve as important inputs is most visible in the Ministry of Economic Affairs and Communications.

These features remained generally the same for 2011 as well. Furthermore, the integration between the evaluations and policy planning was further deepened by the reorganisations within the Ministry of Finance. Namely, some of the personnel responsible for evaluations of the Structural Funds were moved into the State Budget Department (Ministry of Finance 2011²³) so that the results of evaluations would feed directly into policy planning. Second, the Ministry of Economic Affairs and Communications and the Ministry of Finance continue to be the best example of how evaluations undertaken have fed into policies, but significant positive developments have also taken place in the Ministry of Education and Research in 2011. Third, the Estonian Evaluation Society (ESTES), in co-operation with several stakeholders, has developed Good Practice Guidelines in Policy Evaluation that ought to be published by the end of 2012 and help to raise evaluation quality and create a common understanding of the evaluation practice and standards between all stakeholders.

The most updated version of the Evaluation plan was approved in March 2012. Seven evaluations related to the ERDF and Cohesion Funds are foreseen (Table 2). Although in the earlier version

²² [Principles and Action Plan for Evaluation of the Use of Structural Funds for Programme Period 2007–2013].

²³ Rahandusministeeriumi põhimäärus (RT I, 29.12.2011, 13).

“Regional evaluation of the investment projects” was expected to be initiated (in 2010), the study was cancelled based on the decision in 2011 as this aspect was included into other studies.

Table 2 - Evaluation Plan Regarding the ERDF and Cohesion Fund, 2007–2013, and current status

Evaluation	Timing	Institution	Comment
Evaluation of the project selection criteria	2009 – 2010	Ministry of Finance	Evaluation of the selection criteria of Structural Funds (2010)
Mid-term evaluation: indicators, implementation system, results, impact	2011	Ministry of Finance	Completed in 2011 (see below)
Evaluation of the implementation of the R&D measures	2010 – 2011	Ministry of Education and Research	Completed in 2011 (see below)
Impact evaluation of several environmental measures	2010 – 2012	Ministry of Environment	Study focusing on the contribution of the OP to the EU Strategy for the Baltic Sea Region is expected to be completed in 2013.
Impact evaluation of entrepreneurship measures	2010 - 2011	Ministry of Economic Affairs and Communications	Completed in 2012 (see below)
Evaluation of the development plan of the information society	2010 - 2011	Ministry of Economic Affairs and Communications	Feasibility study on green ICT (2011); on-going evaluation on the impact of public e-services (forthcoming 2013)
Mid-term evaluation of the Energy Technology Programme	2012	Ministry of Economic Affairs and Communications	

Source: Author; based on interviews and data from the Ministry of Finance.

Several new evaluations and studies assessing Cohesion policy performance have become available since the 2011 report was prepared (Table 3).

Table 3 - Evaluations and studies assessing Cohesion Policy performance, September 2011- October 2012

Title and date of completion	Policy area and scope (*)	Main objectives (*)	Main findings	Method (*)	Full reference or link to publication
Mid-term evaluation ²⁴ (December 2011)	Multi-area (mid-term evaluation)(9)	Evaluation of progress toward overall objectives; Evaluation of management system (2)	Progress towards targets taking place, well-functioning management system	Mainly qualitative, (4)	http://www.strukturifondid.ee/public/hindamine/Vaehindamise_aruanne.pdf
Mid-term evaluation of R&D and higher education measures ²⁵ (October 2011)	RTDI (1)	Analyse relevance, suitability, and sufficiency of measures for fulfilment of the objectives of strategies, (3).	Measures support effectively reaching the objectives. Indicators set will mostly be reached. Planning and implementation well conducted.	Mainly qualitative, case studies, (4)	http://www.hm.ee/index.php?popup=download&id=11565
European Research Area Committee (ERAC) Peer-Review of the Estonian Research and Innovation System (2012)	RTDI, enterprise support (1)(2)	Support the development of Estonian policy and support coordination within European Research Area, (2,3)	Better integration is needed between the research and innovation systems	Qualitative, (4)	http://www.hm.ee/index.php?popup=download&id=11652
Activities of the state in promoting key areas of research and development ²⁶ (2012)	RTDI (1)	Analyse if the measure contributes to the achievement of the state's R&D priorities, (3)	The role and objective of the measure is unclear; cooperation between ministers in development and coordination has been inadequate; insufficient attention to evaluation of results.	Qualitative, statistical analysis, (4)	http://www.riigikontroll.ee/DesktopModules/DigiDetail/FileDownloader.aspx?FileId=11464&AuditId=2232
Mid-term evaluation of Enterprise and Innovation Policy ²⁷	Enterprise support (2)	Assess the impact, effectiveness and appropriateness of the measures, (3).	Economic performance of the beneficiaries was higher compared to the average of all enterprises	Quantitative and qualitative, (1)	http://www.mkm.ee/public/Ettevotlustoetuste_loppraport.pdf

Source: Author. Note: (*) Legend

Policy area and scope: 1. RTDI; 2. Enterprise support and ICT; 3. Human Resources (ERDF only); 4. Transport; 5. Environment; 6. Energy; 7. Territorial development (urban areas, tourism, rural development, cultural heritage, health, public security, local development); 8. Capacity and institution building; 9. Multi-area (e.g. evaluations of programmes, mid-term evaluations); 10. Transversal aspects (e.g. gender or equal opportunities, sustainable development, employment)

Main objective and focus: 1. assess the arrangements and procedures for managing or administering programmes; 2. support monitoring, or check the progress made in implementing programmes, such as many mid-term evaluations; 3. assess the outcome or effects of programmes in terms of the results achieved and their contribution to attaining socio-economic policy objectives

Method used: 1. Counterfactual; 2. Cost-benefit analysis; 3. Other quantitative; 4. Qualitative

²⁴ [Perioodi 2007-2013 struktuurivahendite vaehindamine]

²⁵ [Euroopa Liidu t ukefondide perioodi 2007-2013 teadus- ja arendustegevuse ning k rghariduse meetmete rakendamise vaehindamine]

²⁶ [Riigi tegevus teadus- ja arendustegevuse v tmevaldkondade edendamisel]

²⁷ [Ettev tlus- ja innovatsioonipoliitika vaehindamine]

The **mid-term evaluation** (2011) covers all OPs at the national level and focuses on indicators, results, and impact as well as on the implementation system. The evaluation was based on analysis of documents and interviews (86 interviewees including those involved in focus groups). It was stated that a survey was carried out among the applicants/beneficiaries, but no further details are available on the number of respondents. The main input to the study came from the experts interviewed and those involved directly in the evaluation team.

The evaluation concludes that the funds were used to achieve the objectives set and that they have contributed to Estonian economic development and competitiveness and to countering the economic crisis. The evaluation does not propose any reallocation between priority axes.

Analysis of the achievements was carried out based on the indicators. The progress towards the indicator targets for 2010 in the OP for the Development of Economic Environment was stated as satisfactory. For the OP for the Development of Living Environment it was concluded that the targets would not be achieved for a third of the indicators, based on the opinion of the evaluators. Similar to the 2010 study, it concluded that the system of indicators was not optimal.²⁸ There were cases where outcome indicators were weakly related to the measures implemented and the methodology behind some indicators was confusing. The set of current indicators is also dominated by output indicators. Impact indicators are sometimes too general (and sometimes the effect of EU funded interventions was difficult to track down) and sometimes disconnected from policy documents. It is suggested that in future the impact and results indicators should be set (based on political decisions) and the outcome indicators could be introduced in parallel with the development of the policy measures.

One of the research questions was related to the impact on regional development in different counties in Estonia. It was concluded that detailed effects remained unclear (as the system of current indicators does not measure such aspects), but further steps could be taken to improve this by stronger involvement of the county level into funding decisions to achieve better correspondence between the project funded and local development needs.

Regarding the future, the evaluation suggested more investment in soft measures, such as increasing the stock of local knowledge and, in the case of promoting regional development, to invest in local competence centres, but only limited information was provided on how those recommendations were reached.

The evaluation of the management and implementation system concluded that further optimisation of the system was possible, mainly through better strategic planning and monitoring of implementation.

The **Mid-term evaluation of R&D and higher education measures** (2011) focused on strategic management and programming of Structural Fund measures. The evaluation covered measures included in both the (ESF-funded) OP for Human Resources Development and the OP for the Development of Economic Environment and was based on analysis of documents and 28 interviews. The overall conclusion was that the R&D and higher education measures are effective in achieving their strategic objectives and that the targets set in the OPs will mostly be reached. The

²⁸ Some steps have been taken to change the indicators (see p. 16 on the Amendments to the OP for the Development of the Living Environment from June 2012).

planning and implementation of the higher education and R&D measures had been undertaken relatively well.

Although the set of measures could be considered as sufficient to meet the objectives, the programme suffers from a poorly articulated intervention logic. The inappropriate sequencing in the operational implementation of measures is a weakness. It was, however, not considered necessary to introduce additional measures in the current programming period. Rather, the focus ought to be on the effective management of current measures and, in particular, ensuring adequate progress on the thematic programmes. The evaluation team also considered that the set of indicators proposed for the OPs was too formalistic to support strategic management. The targets for output and result indicators were often set too conservatively, meaning that they would be too comfortably attained. At the same time, the objectives of the R&D strategies expressed in the NSRF will most probably not be reached.

The evaluation concluded that the multi-annual budget framework of the Structural Funds was helpful in ensuring a stable development of the R&D system, despite the unforeseeable financial crisis. The Structural Fund measures have contributed to overcoming key obstacles to the development of a more competitive R&D system.

A critical issue that has slowed implementation was the overly large number of measures. At a strategic level, the Ministry lacked the capacity to design and launch the range of measures rapidly enough or in a logical sequence. The large number of measures also led to an excessive administrative burden on both applicants and the implementing agency. In the implementing agency, this resulted in a lack of understanding of the potential for synergies between different measures. For the applicants, efficiency was reduced by the need to source funds for a 'single project' from various potentially complementary measures.

Steps have been taken by the Ministry and the related agencies to address the recommendations, e.g., a great deal of attention was put on the system of indicators (for the next programming period) and active communication is taking place with potential beneficiaries on the currently open measures.

Evaluation '**Activities of the state in promoting key areas of R&D**' (2012) was carried out by the National Audit Office. The study (based on analysis of documents, 33 interviews and statistical analysis) assessed whether national R&D programmes and the other related financing measures allowed the state to steer the development of the areas of research that were important to Estonia (biotechnology, energy technology, materials technology, environmental protection and technology, health, information and communication technology) and whether they contributed to the achievement of the state's R&D priorities. The evaluation concluded that:

- The role and objective of national programmes as measures or financing mechanisms were unclear;
- The cooperation between Ministers in the development and coordination of national programmes has been inadequate;
- Objectives and indicators of the programmes are too general.

It was recommended that more specific goals should be formulated for national programmes (in key areas of R&D) in cooperation with other Ministries and that all Ministries dealing with the relevant topics should be involved in the development and implementation of national

programmes. Financing of national programmes should be guaranteed in such a manner that the money would not be spent mainly on co-financing existing research subjects, but on approaching new areas of R&D as well as the avoidance of excessive fragmentation of the activities between measures and programmes. More attention should be paid on systematic reporting on the activities carried out in key areas, the achieved results and the money spent.

A departure from the common tendency — to use external evaluations — occurred as regards the impact evaluation of some entrepreneurship and innovation measures. The Ministry of Economic Affairs and Communications carried out an **Evaluation of Estonian Enterprise and Innovation Policy** (Jaaksoo et al. 2012) mainly internally, though using foreign consultants for the development and verification of the methodology (see Männik et al. 2011).

The objective of the evaluation was to assess the measures used and the impact, effectiveness and appropriateness of the measures operated by Enterprise Estonia and Kredex. The evaluation consisted of an analysis of the financial services of KredEx and the grants and services offered by Enterprise Estonia for the period 2004-2010. The evaluation analysed the effects on companies that have received grants, or used the services supported, and the structural changes that this had induced.

A multi-method approach was used, combining quantitative (including econometrics) as well as qualitative research methods. A database of 622 Enterprise Estonia and 751 KredEx clients was created, and changes in sales revenue, labour costs, number of employees, export revenue, profit and value-added of the company were observed. An online questionnaire was sent from the database to which more than half of Enterprise Estonia's clients and 14.5% of KredEx's clients responded. In addition, 82 semi-structured interviews were conducted with the beneficiaries.

The evaluation concluded that companies which turn to Enterprise Estonia for financing are larger, more profitable and more focused on export. The companies turning to KredEx are smaller and more focused on the domestic market.

In contrast to the reference group, the companies which had received a grant from Enterprise Estonia enjoyed higher of employment sales revenue and export income. However, their growth compared to the national average was smaller in terms of profits and value-added. The best results were achieved by computer, electronics and optical instrument producers, furniture manufacturers, hotels and other services sectors.

The financial performance of the companies that used the services of KredEx was also compared to the national average. The results showed that the former have grown faster than the average. Significantly above average results were obtained in the metal industry, where there was growth of all the indicators, especially of exports. Furthermore, the effect was positive for several service sectors that were mainly focused on the domestic market.

Two main policy issues were raised: 1) how to improve the effectiveness of Enterprise Estonia in changing the structure of the economy and 2) whether KredEx should be involved in the task of restructuring the economy and if so how.

ERAC Peer-Review of the Estonian Research and Innovation System (Christensen et al. 2012) deals with the formation and function of the European Research Area, and focuses on the strategic planning, monitoring and evaluation of R&D and innovation policy in Estonia.

Although the analysis was carried out at a rather general level, its conclusions are relevant for the use of Structural Funds, especially given that 64% of all public sector R&D and innovation funding was co-financed by Structural Funds in 2011.

The report concluded, similar to earlier evaluations, that the development and performance of the Estonian innovation system and policy had been significant over the past two decades. However, the main challenge was to further develop the research and innovation system in ways that will make a difference to the economy as a whole. It suggested increased investment in the creation of public-private partnerships in innovation and to broaden the scope of policy to include instruments that support the upgrading of traditionally strong industries. To increase the performance and overall impact of its research and innovation policy, the following was recommended (Christensen et al. 2012, pp. 23-25 for details):

- Recognise R&D and innovation as a means to achieve economic and social goals;
- Clearer thematic focus for Estonian RDTI programmes;
- Ensure coherent and systemic R&D and innovation policy;
- Ensure the availability of competent human capital;
- Harness R&D and innovation measures to drive structural change in the economy;
- Lessen R&D and innovation dependency on EU Structural Funds;
- Increase the connectivity of the innovation system;
- Extend the reach and variety of innovation instruments; and
- Monitor the progress of the new strategy and the measures it contains.

The recommendation - lessen dependency on the Structural Funds - refers to the fact that a growing share of the public expenditure in this area comes from the Structural Funds, partly replacing national government funding of RDTI. Concerns have been raised as regards the flexibility and continuity of funding in the long-term.

5. FURTHER REMARKS - NEW CHALLENGES FOR POLICY

Main points from previous country report (see Kalvet 2011, pp. 20-21):

- Estonia faces considerable challenges in meeting the objectives of the Regional Development Strategy 2005-2015, there was a need for better coordination between the different policy areas and for a governance model that brought decision-making to the regional (functional urban region) level.
- Attention needed to be paid to the slow progress in implementation of environmental measures and to measures enhancing the R&D system.
- The AIRs continue to be very indicator-driven and lack qualitative analysis and references to studies and evaluations. No evaluations have examined the regional dimension of interventions.
- Attention should be paid to the ability of local governments to sustain the projects supported by the ERDF and Cohesion Fund.

Progress has been made both in the implementation of environmental measures and in measures enhancing the R&D system. However concerns remain about meeting the objectives of the Regional Development Strategy 2005-2015 and about the ability of local governments to sustain the projects. As the evaluations show, this has become an even more pressing issue.

Finally, there is a continuous need for additional evaluations and studies on the environment and territorial development.

REFERENCES

All links valid as of 18 October, 2012.

Nation-wide evaluations across operational programmes (2007-2013)

Struktuurivahendite rakenduskava hindamine. Uringuaruanne [Evaluation of the Operational Plans on the use of Structural Funds. Research Report]. 2009. Ernst & Young Baltic, Poliitikauuringute Keskus Praxis, Säätva Eesti Instituut, Balti Uuringute Instituut. http://www.struktuurifondid.ee/public/Struktuurivahendite_rakenduskava_hindamine.pdf.

Struktuurivahendite valikukriteeriumide hindamine. Uringuaruanne [Evaluation of the selection criteria of Structural Funds. Research Report. 2010. Ernst & Young Baltic, Poliitikauuringute Keskus Praxis, Balti Uuringute Instituut. http://www.struktuurifondid.ee/public/Valikukriteeriumide_uuringuaruanne.pdf.

Evaluations of specific aspects of operational programmes

Evaluation of the Estonia – Latvia Programme 2007-2013. 2010. Balti Uuringute Instituut and Poliitikauuringute Keskus Praxis. http://www.estlat.eu/download/evaluation_of_the_estonia-latvia_programme_2010_06_07_5bb63.pdf.

Jaaksoo, K., Kitsing, M., Lember, K., Rebane, T. 2012. Mid-term evaluation of Enterprise and Innovation Policy [Ettevõtlus- ja innovatsioonipoliitika vahehindamine]. http://www.mkm.ee/public/Ettevotlustoetuste_loppraport.pdf.

Balti Uuringute Instituut, Poliitikauuringute Keskus Praxis and Technopolis Group Belgia. 2011. Euroopa Liidu tõukefondide perioodi 2007-2013 teadus- ja arendustegevuse ning kõrghariduse meetmete rakendamise vahehindamine [The mid-term evaluation of the implementation of measures in favour of R&D and higher education in the framework of the EU co-financed Structural Funds during the period 2007-13]. <http://www.hm.ee/index.php?popup=download&id=11565>.

National Audit Office. 2012. Riigi tegevus teadus- ja arendustegevuse võtmevaldkondade edendamisel [Activities of the state in promoting key areas of research and development]. <http://www.riigikontroll.ee/DesktopModules/DigiDetail/FileDownloader.aspx?FileId=11464&AuditId=2232>.

Other research studies and impact assessments

Christensen, T.A., Freireich, S., Kolar, J., Nytbergh, P. 2012. Peer-Review of the Estonian Research and Innovation System. Steady Progress Towards Knowledge Society. Innovation Studies 19/2012. <http://www.hm.ee/index.php?popup=download&id=11652>.

National Audit Office. 2010. Riigi ettevõtlustoetuste mõju Eesti majanduse konkurentsivõimele [The impact of enterprise support measures to competitiveness of the Estonian economy]. <http://www.riigikontroll.ee/tabid/206/Audit/2148/Area/4/language/et-EE/Default.aspx>.

Statistical information

DG Regio. 2012. Data delivered in July 2012.

Eurostat. 2012. On-line database. <http://ec.europa.eu/eurostat>.

Ministry of Finance. 2012a. Local Governments revenues and expenditures 2004-2012. <http://www.fin.ee/doc.php?109575>.

Ministry of Finance. 2012b. Financial report, August. <http://www.strukturifondid.ee/struktuuritoetuse-kasutamise-kuuulevaated/>.

Statistics Estonia. 2012a. Last year the economy thrived in Estonia. <http://www.stat.ee/57510>.

Statistics Estonia. 2012b. Central Government budget balance improved. <http://www.stat.ee/57472>.

Statistics Estonia. 2012c. On-line database. <http://www.stat.ee>.

Other references

Amendments to the OP for the Development of the Living Environment, June 2012.

Annual Implementation Report, Estonia - Latvia Programme 2007-2013. 2012. Annual Implementation Report for 1.01.2011-31.12.2011.

Annual Implementation Report, Estonia - Latvia Programme 2007-2013. 2011. Annual Implementation Report for 1.01.2010-31.12.2010.

Elukeskkonna arendamise rakenduskava seirearuanne. Aruandluse period 1.01.2011-31.12.2011 [Annual Implementation Report, Operational Programme for Development of Living Environment, 1.01.2011 - 31.12.2011]. 2012. Elukeskkonna arendamise rakenduskava seirekomisjon.

Elukeskkonna arendamise rakenduskava seirearuanne. Aruandluse period 1.01.2010-31.12.2010 [Annual Implementation Report, Operational Programme for Development of Living Environment, 1.01.2010 - 31.12.2010]. 2011. Elukeskkonna arendamise rakenduskava seirekomisjon.

Kalvet, T. 2012. Financial Engineering: Estonia. Expert Evaluation Network delivering Policy Analysis on the Performance of Cohesion Policy 2007-2013. Brussels: DG Regional Policy.

Kalvet, T. 2011. Country Report on Achievements of Cohesion Policy: Estonia. Expert Evaluation Network delivering Policy Analysis on the Performance of Cohesion Policy 2007-2013. Brussels: DG Regional Policy, http://ec.europa.eu/regional_policy/sources/docgener/evaluation/pdf/eval2007/expert_innovation/2011evaluation_reports.zip.

Kalvet, T. 2010. Country Report on Achievements of Cohesion Policy: Estonia. Expert Evaluation Network delivering Policy Analysis on the Performance of Cohesion Policy 2007-2013. Brussels: DG Regional Policy, http://ec.europa.eu/regional_policy/sources/docgener/evaluation/pdf/eval2007/country_reports/estonia.pdf.

Kalvet, T., Vanags, A., Maniokas, K. 2012. Financial engineering instruments: the way forward for Cohesion policy support? Recent experience from the Baltic States. Baltic Journal of Economics, 12(1), 5 - 22.

KredEx. 2010. Annual report 2009, <http://www.kredex.ee/aastaaruanne2009/>.

KredEx. 2011. Annual report 2010, <http://www.kredex.ee/aastaaruanne2010>.

KredEx. 2012. Annual report 2011, <http://www.kredex.ee/public/aastaaruanne2011/et/index.html>

Operational Programme for the Development of Economic Environment 2007–2013. 2007. Republic of Estonia.

Operational Programme for Development of Living Environment 2007–2013. 2007. Republic of Estonia.

Majanduskeskkonna arendamise rakenduskava seirearuanne. Aruandluse periood 1.01.2011-31.12.2011 [Annual Implementation Report, Operational Programme for the Development of Economic Environment, 1.01.2011 – 31.12.2011]. 2012. Majanduskeskkonna arendamise rakenduskava seirekomisjon.

Majanduskeskkonna arendamise rakenduskava seirearuanne. Aruandluse periood 1.01.2010-31.12.2010 [Annual Implementation Report, Operational Programme for the Development of Economic Environment, 1.01.2010 – 31.12.2010]. 2011. Majanduskeskkonna arendamise rakenduskava seirekomisjon.

Männik, K., Miedzinski, M., Reid, A. 2011. Evaluation framework for innovation and enterprise support policies in Estonia. Innovation Studies 17/2011, http://www.mkm.ee/public/Inno_17_24_11_2011.pdf.

Operational Programme of Baltic Sea Region Programme 2007-2013. 2007.

Operational Programme of Central Baltic Interreg IVA Programme 2007-2013. 2007.

Operational Programme of Estonia – Latvia Programme 2007-2013. 2007.

Programmiperioodi 2007-2013 Struktuurivahendite hindamise korraldamise põhimõtted ja tööplaan [Principles and Action Plan for Evaluation of the use of Structural Funds, 2007-2013]. 2012. Rahandusministeerium.

Regional Development Strategy 2005-2015. 2005. Government of Estonia. Available on-line at: http://www.siseministeerium.ee/public/Eesti_regionaalarengu_strateegia_2005_2015_eng_tolge.d oc.

Riiklik struktuurivahendite kasutamise strateegia 2007-2013 [National Strategic Reference Framework (NSRF) 2007-2013]. 2007. Republic of Estonia. Available online in English at http://www.struktuurifondid.ee/public/Estonian_NSRF_21June07_ENG.pdf.

INTERVIEWS

Helena Järviste, Joint Technical Secretariat, Estonia-Latvia Programme. 15 October 2012.

Ragne Maasel, Structural and Foreign Assistance Department, Ministry of Finance. 2 October 2012.

Garri Raagmaa, Institute of Ecology and Earth Sciences, University of Tartu. September 2012.

Teele Tohver, Structural and Foreign Assistance Department, Ministry of Finance. 11 October 2012.

Marek Tiits, Institute of Baltic Studies. 18 September 2012.

Mirjam Vahtra, State Budget Department, Ministry of Finance. 11 October 2012.

ANNEX 1 – TABLES

See Excel Tables 1 -4:

Excel Table 1 – Regional disparities and trends

Excel Table 2 – Macro-economic developments

Excel Table 3 - Financial allocation by main policy area

Excel Table 3cbc - Financial allocation by main policy area – cross border cooperation

Excel Table 4 - Commitments by main policy area (by end-2011)

Excel Table 4cbc - Commitments by main policy area (by end-2011) – cross border cooperation

Annex Table A - GDP at NUTS 3 level - Share in National Output

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Central	7.7	7.5	7.4	7.0	6.9	6.6	6.4	6.7	6.3	6.0
North	56.7	57.1	57.8	59.3	59.8	58.5	60.5	59.7	59.8	61.1
North-East	8.8	8.5	8.3	7.9	7.8	8.1	7.6	7.7	8.1	7.6
South	17.3	17.5	17.4	17.4	17.1	18.0	17.2	17.5	17.7	17.4
West	9.4	9.5	9.1	8.5	8.5	8.8	8.3	8.4	8.2	7.9
Whole country	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Statistics Estonia 2012c, authors' calculations.

Annex Table B - GDP at county level, 2000-2009 - Share in National Output

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Harju county	56.7	57.1	57.8	59.3	59.8	58.5	60.5	59.7	59.8	61.1
Hiiu county	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.4	0.4	0.5
Ida-Viru county	8.8	8.5	8.3	7.9	7.8	8.1	7.6	7.7	8.1	7.6
Jõgeva county	1.4	1.4	1.3	1.2	1.3	1.3	1.2	1.2	1.1	1.2
Järva county	2.1	2.0	2.0	1.9	1.9	1.7	1.7	1.7	1.5	1.4
Lääne county	1.5	1.4	1.4	1.2	1.3	1.3	1.3	1.3	1.2	1.2
Lääne-Viru county	3.7	3.6	3.7	3.4	3.4	3.4	3.3	3.4	3.4	3.1
Põlva county	1.4	1.4	1.3	1.2	1.1	1.1	1.1	1.2	1.2	1.1
Pärnu county	5.5	5.6	5.3	5.0	4.9	5.2	4.9	5.0	4.7	4.5
Rapla county	1.9	1.8	1.7	1.6	1.6	1.5	1.5	1.5	1.4	1.4
Saare county	1.8	1.8	1.8	1.7	1.7	1.8	1.7	1.7	1.8	1.8
Tartu county	8.5	8.9	8.9	9.4	9.2	10.2	9.8	10.0	10.4	10.2
Valga county	1.5	1.4	1.5	1.4	1.3	1.4	1.3	1.3	1.3	1.3
Viljandi county	2.7	2.7	2.7	2.5	2.5	2.5	2.3	2.3	2.3	2.2
Võru county	1.8	1.7	1.7	1.6	1.6	1.5	1.4	1.5	1.5	1.5
Whole country	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Statistics Estonia 2012c.

Annex Table C – Population by county – share in total population, 2000-2012

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Harju	38.3	38.4	38.6	38.9	39.4	39.9	40.2	40.6	41.0	41.3	41.7	42.2	42.7
Hiiu	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
Ida-Viru	13.1	13.1	12.9	12.8	12.7	12.6	12.5	12.4	12.3	12.1	12.0	11.8	11.7
Jõgeva	2.8	2.8	2.8	2.8	2.7	2.7	2.7	2.6	2.6	2.6	2.5	2.5	2.5
Järva	2.7	2.7	2.7	2.7	2.6	2.6	2.6	2.6	2.5	2.5	2.5	2.4	2.4
Lääne	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9
Lääne-Viru	5.1	5.1	5.1	5.0	5.0	4.9	4.9	4.9	4.8	4.8	4.7	4.7	4.6
Põlva	2.4	2.4	2.4	2.4	2.4	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.2
Pärnu	6.7	6.7	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.5	6.5
Rapla	2.7	2.8	2.8	2.8	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
Saare	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.5	2.5	2.5	2.5	2.5	2.5
Tartu	10.9	11.0	11.0	11.1	11.0	11.0	10.9	10.9	10.9	10.9	11.0	11.0	11.0
Valga	2.6	2.6	2.6	2.6	2.6	2.5	2.5	2.5	2.5	2.4	2.4	2.4	2.4
Viljandi	4.2	4.2	4.2	4.2	4.1	4.1	4.0	4.0	3.9	3.9	3.8	3.8	3.7
Võru	2.9	2.9	2.9	2.9	2.8	2.8	2.8	2.8	2.7	2.7	2.7	2.7	2.6
Estonia	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100

Source: Statistics Estonia 2012c.

Annex Table D - Employment rate by county, 2000-2011

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Estonia's average	54.7	55.2	55.9	56.7	56.8	57.9	61.6	62.6	63	57.4	55.2	59.1
Harju	60.1	60.4	62	62.5	61.8	64.2	67.6	68.9	69.3	62.9	60.8	65.5
Hiiu	59.8	60.8	55	61.7	61	64.2	67.6	71.3	70.6	54.9	49.2	56.7
Ida-Viru	48.8	49.7	49.2	47.6	48.2	50.9	56.7	56.9	54.3	50.5	46.2	51.5
Jõgeva	44.4	44.1	44	44.7	45.6	44.5	50.8	54.2	53.1	48.3	47.9	49
Järva	56.6	55.9	54.7	52.2	59.7	59.6	58.3	60.6	63.5	59.6	51.4	55.8
Lääne	53.1	51.2	53.1	51.9	58.1	57.6	53.5	60.2	61.1	58.1	51.3	59.3
Lääne-Viru	49.6	56.5	55.7	54.8	52.7	57.2	59.3	55.6	57.5	49.6	53.4	55
Põlva	39.6	46.1	42.4	43.8	45.2	46.6	46.4	47.6	48	45.2	43	49.2
Pärnu	53	51.5	54.5	57.9	55.4	53.2	56.5	61.3	63.5	58.3	53.4	55.2
Rapla	50.3	55.4	53	55.8	57	56	62.5	63.7	64.8	57.9	56.8	59.4
Saare	55.8	56.3	55.1	55.9	55.7	52.6	54.6	57.1	56.2	53.3	55.1	55.8
Tartu	54.4	52.3	54.7	59.2	60	57.5	62.5	63.7	64.9	57.9	54.5	58.9
Valga	51.4	50.6	50.4	53.8	52.2	51.5	56.7	54.6	54	49.7	53.4	49.1
Viljandi	56.3	54.3	55.8	56.1	55.5	55.3	60.6	60.2	61.5	54.8	56.8	60.7
Võru	44.7	47.3	44.9	43.4	47.7	51.1	54.2	48.9	48.9	51	49.7	52.6

Source: Statistics Estonia 2012c.

Annex Table E - Equalised yearly disposable income by county, 2003-2010

	2003	2004	2005	2006	2007	2008	2009	2010
Estonia's average	79.7	79.1	80.8	80.1	83.3	80.8	82.8	84.2
Harju	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Hiiu	63.9	62.7	61.2	59.6	60.5	61.5	65.8	77.6
Ida-Viru	57.4	58.2	58.4	55.9	62.8	60.3	63.5	63.3
Jõgeva	55.0	56.0	57.8	65.3	73.5	68.7	67.1	67.3
Järva	80.4	71.7	75.1	70.7	75.6	68.7	72.8	72.7
Lääne	66.0	63.6	69.8	70.4	74.2	75.4	77.3	84.8
Lääne-Viru	66.2	66.2	66.9	71.5	74.6	65.3	68.9	70.4
Põlva	61.2	62.2	60.9	56.1	59.6	60.6	63.5	64.9
Pärnu	75.0	72.6	72.4	71.9	75.9	68.7	74.1	79.9
Rapla	67.0	68.1	69.5	71.8	81.7	78.5	82.5	80.7
Saare	71.9	65.9	66.7	66.3	73.8	69.7	73.4	77.1
Tartu	77.2	75.1	82.4	78.6	83.6	79.7	85.1	87.7
Valga	62.9	58.9	65.8	64.7	66.2	65.7	63.1	61.9
Viljandi	65.1	67.9	72.8	68.0	73.5	64.5	65.6	71.7
Võru	60.9	57.5	63.0	61.4	64.5	64.7	64.9	66.2

Source: Statistics Estonia 2012c.

Annex Table F - Unemployment rate by county, 2000-2011

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Estonia's average	13.6	12.6	10.3	10	9.7	7.9	5.9	4.7	5.5	13.8	16.9	12.5
Harju county	11.5	11.6	8.6	9.6	9.6	7.5	4.3	3.3	4.4	12.9	16.2	11.6
Hiiu county	9.5	7.8	10.8	5.9	5.7	7.2	..	..	..	11.1	11.5	5.0
Ida-Viru county	21.1	18	18.9	18.2	17.9	16.2	12.1	9	10	18.1	25.8	20.3
Jõgeva county	16.9	20.5	16	15.8	13.7	16.9	13.1	6.5	7	20.1	19.8	12.4
Järva county	15.8	15.7	13.9	13.2	9.5	5.6	6.2	4.7	4.8	11.9	17.1	13.2
Lääne county	14.8	15.4	15.1	11.3	5.3	..	..	..	6.1	15.5	22.3	12.9
Lääne-Viru county	13.6	9	7.3	6.4	7.4	5.8	5.7	5.4	5.6	16.4	12.4	11.1
Põlva county	22.8	17.6	14.8	13.7	14.9	12.4	8.4	..	8.9	12	15.8	12.4
Pärnu county	11	10.6	7.7	7.5	6.3	5.9	..	3.9	4	10.6	14.2	10.5
Rapla county	16.3	9.4	9.7	5	6.7	..	..	5.1	6.9	15.5	19.8	13.5
Saare county	12	9.4	7.4	6.5	4.1	..	..	..	..	10.4	9.3	10.2
Tartu county	11.4	9.5	5.8	5.3	5	4.5	6	3.9	4.3	11.9	15.8	11.0
Valga county	12.7	13.9	7.5	7.9	11.1	..	8.6	9.1	8.5	17.8	13.3	13.3
Viljandi county	11.4	14.8	13.1	9.2	9.1	4.9	4.6	3.6	5.6	11.9	11.3	9.1
Võru county	15.8	10.1	8.2	10.4	7	..	..	5.1	6.7	16	14.8	11.2

Source: Statistics Estonia 2012c.

Annex Table G - At-risk-of-poverty rate by county, 2004-2010

	2004	2005	2006	2007	2008	2009	2010
Estonia's average	18.3	18.3	19.4	19.5	19.7	19.5	20.9
Harju	10.9	11.9	11.1	11.1	11.3	10.1	10.4
Hiiu	22.4	27.3	24.0	36.8	31.7	20.5	17.9
Ida-Viru	25.2	27.9	32.6	31.6	30.8	24.6	29.7
Jõgeva	36.2	34.0	30.2	27.0	28.5	23.9	25.4
Järva	26.0	23.0	23.7	28.3	23.7	20.8	25.1
Lääne	22.9	21.9	21.1	21.3	17.2	19.0	12.7
Lääne-Viru	23.1	24.6	23.8	23.0	26.5	18.8	24.0
Põlva	27.0	29.0	33.2	27.8	26.3	21.7	25.8
Pärnu	18.7	17.0	20.5	22.7	24.0	19.3	16.2
Rapla	23.2	19.6	19.5	17.9	20.9	15.1	19.6
Saare	20.5	22.1	24.1	25.0	27.4	18.9	17.4
Tartu	17.4	12.8	15.3	19.3	16.4	11.9	16.0
Valga	26.4	28.4	29.8	28.6	26.0	24.7	25.8
Viljandi	23.9	22.8	26.6	21.7	29.5	19.2	22.2
Võru	23.7	22.8	26.3	25.0	30.9	23.4	25.2

Source: Statistics Estonia 2012c.

Annex Table H - Financial allocations, commitments and expenditures by priority axes, 2007 - 30 August, 2012

	Allocations, 2007-2013		Commitments, 2007 to 31 December 2011		Certified eligible expenditure, 2007 to 31 December 2011		Commitments, 2007 to 30 August 2012		Certified eligible expenditure, 2007 to 30 August 2012	
	EU contribution (EUR million)	EU contribution (EUR million)	%	EU contribution (EUR million)	%	EU contribution (EUR million)	%	EU contribution (EUR million)	%	
OP for the Development of Economic Environment										
Priority axis 1: Innovation and growth capacities of enterprises	424.3	384.6	90.6	240.6	56.7	392.5	92.5	280.0	66.0	
Priority axis 2: Enhancing the competitive ability of Estonian R&D through research programmes and modernisation of higher education and research institutions	310.2	249.4	80.4	74.5	24.0	282.2	91.0	121.3	39.1	
Priority axis 3: Transport investments of strategic importance	525.4	479.3	91.2	188.5	35.9	529.9	100.9	232.1	44.2	
Priority axis 4: Development of regional transport infrastructure	110.5	110.5	100.0	77.4	70.0	110.5	100.0	86.1	77.9	
Priority axis 5: Promotion of information society	62.6	50.9	81.3	40.7	65.0	57.6	92.0	46.6	74.4	
OP for the Development of Living Environment										
Priority axis 1: Development of water and waste management infrastructure	626.3	507.0	81.0	143.3	22.9	524.2	83.7	215.8	34.5	
Priority axis 2: Development of infrastructure and support systems for sustainable use of the environment	92.0	84.9	92.3	31.6	34.3	87.1	94.7	50.7	55.1	
Priority axis 3: Development of energy sector	28.8	27.8	96.5	22.6	78.5	28.5	99.0	24.5	85.1	
Priority axes 4: Integral and balanced development of regions	388.6	305.3	78.6	187.7	48.3	329.3	84.7	224.0	57.6	
Priority axes 5: Development of education infrastructure	212.8	192.5	90.5	102.9	48.4	193.0	90.7	135.4	63.6	
Priority axes 6: development of health and welfare infrastructure	169.1	166.5	98.5	52.9	31.3	167.3	98.9	66.3	39.2	

Sources: Sources for commitments and certified eligible expenditure 2007 - 31 December 2011 are OP for the Development of Economic Environment (2012, p. 114) and OP for the Development of Living Environment (2012, p. 123); source for 2007 - 30 August 2012 data is the Ministry of Finance 2012b.

Annex Table I. Broad policy areas and correspondence with fields of intervention (FOI)

Policy area		Code	Priority themes	
1. Enterprise environment	RTDI and linked activities	01	R&TD activities in research centres	
		02	R&TD infrastructure and centres of competence in a specific technology	
		05	Advanced support services for firms and groups of firms	
		07	Investment in firms directly linked to research and innovation (...)	
		74	Developing human potential in the field of research and innovation, in particular through post-graduate studies ...	
	Innovation support for SMEs	03	Technology transfer and improvement of cooperation networks ...	
		04	Assistance to R&TD, particularly in SMEs (including access to R&TD services in research centres)	
		06	Assistance to SMEs for the promotion of environmentally-friendly products and production processes (...)	
		09	Other measures to stimulate research and innovation and entrepreneurship in SMEs	
		14	Services and applications for SMEs (e-commerce, education and training, networking, etc.)	
		15	Other measures for improving access to and efficient use of ICT by SMEs	
	ICT and related services	11	Information and communication technologies (...)	
		12	Information and communication technologies (TEN-ICT)	
		13	Services and applications for citizens (e-health, e-government, e-learning, e-inclusion, etc.)	
	Other investment in firms	08	Other investment in firms	
	2. Human resources	Education and training	62	Development of life-long learning systems and strategies in firms; training and services for employees ...
			63	Design and dissemination of innovative and more productive ways of organising work
64			Development of special services for employment, training and support in connection with restructuring of sectors ...	
72			Design, introduction and implementing of reforms in education and training systems ...	
73			Measures to increase participation in education and training throughout the life-cycle ...	
Labour market policies		65	Modernisation and strengthening labour market institutions	
		66	Implementing active and preventive measures on the labour market	
		67	Measures encouraging active ageing and prolonging working lives	
		68	Support for self-employment and business start-up	
		69	Measures to improve access to employment and increase sustainable participation and progress of women ...	
		70	Specific action to increase migrants' participation in employment ...	
		71	Pathways to integration and re-entry into employment for disadvantaged people ...	

Policy area		Code	Priority themes
		80	Promoting the partnerships, pacts and initiatives through the networking of relevant stakeholders
3. Transport	Rail	16	Railways
		17	Railways (TEN-T)
		18	Mobile rail assets
		19	Mobile rail assets (TEN-T)
	Road	20	Motorways
		21	Motorways (TEN-T)
		22	National roads
		23	Regional/local roads
	Other transport	24	Cycle tracks
		25	Urban transport
		26	Multimodal transport
		27	Multimodal transport (TEN-T)
		28	Intelligent transport systems
		29	Airports
		30	Ports
31		Inland waterways (regional and local)	
32		Inland waterways (TEN-T)	
4. Environment and energy	Energy infrastructure	33	Electricity
		34	Electricity (TEN-E)
		35	Natural gas
		36	Natural gas (TEN-E)
		37	Petroleum products
		38	Petroleum products (TEN-E)
		39	Renewable energy: wind
		40	Renewable energy: solar
		41	Renewable energy: biomass
		42	Renewable energy: hydroelectric, geothermal and other
		43	Energy efficiency, co-generation, energy management
	Environment and risk prevention	44	Management of household and industrial waste
		45	Management and distribution of water (drink water)
		46	Water treatment (waste water)
		47	Air quality
		48	Integrated prevention and pollution control
		49	Mitigation and adaption to climate change
		50	Rehabilitation of industrial sites and contaminated land
		51	Promotion of biodiversity and nature protection (including Natura 2000)
		52	Promotion of clean urban transport
		53	Risk prevention (...)
		54	Other measures to preserve the environment and prevent risks
5. Territorial development	Social Infrastructure	10	Telephone infrastructure (including broadband networks)
		75	Education infrastructure
		76	Health infrastructure
		77	Childcare infrastructure
		78	Housing infrastructure

Policy area	Code	Priority themes
	79	Other social infrastructure
Tourism and culture	55	Promotion of natural assets
	56	Protection and development of natural heritage
	57	Other assistance to improve tourist services
	58	Protection and preservation of the cultural heritage
	59	Development of cultural infrastructure
	60	Other assistance to improve cultural services
	Planning and rehabilitation	61	Integrated projects for urban and rural regeneration
Other	82	Compensation of any additional costs due to accessibility deficit and territorial fragmentation
	83	Specific action addressed to compensate additional costs due to size market factors
6. Technical assistance	84	Support to compensate additional costs due to climate conditions and relief difficulties
	81	Mechanisms for improving good policy and programme design, monitoring and evaluation ...
	85	Preparation, implementation, monitoring and inspection
	86	Evaluation and studies; information and communication