National Reform Programme “ESTONIA 2020”

(Approved by Government, 25 April 2013)

INTRODUCTION; OVERVIEW OF THE ESTONIA 2020

The National Reform Programme 'Estonia 2020' was approved in 2011 and it describes the objectives for 2015 and 2020 established to improve competitiveness. In addition, the Programme also includes main activities required to improve competitiveness.

The two central objectives of the Programme are increasing the productivity and employment in Estonia. The main focus in the coming years is on education and employment, with an emphasis on integration of long-term and young unemployed people in the labour market and on the development of their skills.

'Estonia 2020' is updated by a Government decision annually at the end of April. The updates take into account the most recent statistics and main challenges specified in inter-ministerial discussions and meetings of the prime minister and ministers held to plan changes in policies and new activities.

The action plan for the implementation of 'Estonia 2020' for 2011-2015 is also supplemented with new measures. The updating takes place in accordance with the Government's Action Plan and the state budget strategy. The action plan is an important input to the process of planning the European Union Structural Funds.

In 2013, the objectives of the Programme and its updating principles were introduced to partners on 13th of March in cooperation with the Delegation of the European Commission to Estonia. Thereafter the material was also available for public consultation through the draft information system in the osale.ee portal. The discussion concerning the feedback collected during the updating process was held on 9th of April.

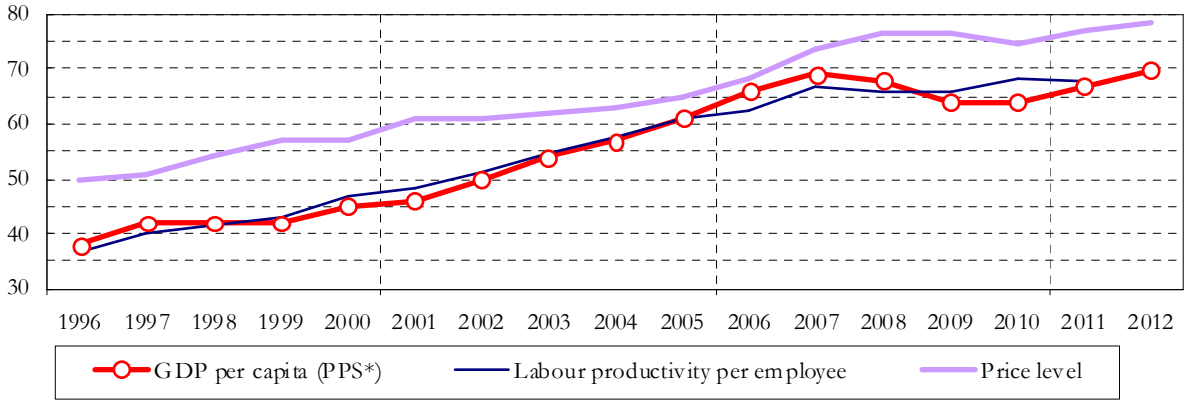
The updating and implementation of 'Estonia 2020' is coordinated by the inter-ministerial working group for competitiveness formed by the Secretary of State. In addition to the working group, the Programme is prepared in cooperation with all important partners as well as a wider circle of interested people through the engagement web.

ANALYSIS OF PROSPECTS FOR ECONOMIC GROWTH

Since regaining of independence in 1992, the Estonian economy has grown nearly tenfold. Estonia saw extraordinary economic growth from 2001-2007. A correction began already in 2007, when the growth rate began gradually decreasing in connection with a shift in the economic cycle. Up to the middle of 2008, this adjustment could be considered an expected development and one that improved economic competitiveness.

As a result of the decline in trade volumes in the world's economy since the end of 2008 and after that the quickly decreasing domestic demand however, Estonia's GDP dropped 4.2% in 2008 and 14.1% in 2009 year on year. Since 2010 Estonian economy started to grow again by 3.3%, which accelerated in 2011 to 8.3% supported by the exporting sectors. In 2012 the economic growth was 3.2%, GDP in current prices was 16.99 billion euro. Growth was maintained by internal demand as foreign markets weakened.

Figure 1. Real convergence between Estonia and the EU (% of the EU27)



Source: Eurostat, Ministry of Finance

According to the Ministry of Finance's new spring forecast for 2013, economic growth should be around 3% in 2013 and improve slightly in the following year, supported by stronger growth expectations of the export partners and thereafter the forecast is about 3.5%.

The recovery speed of employment has been high, which will probably soon be exhausted and in this and following years the employment may grow slower and even stop. The growth of the average salaries might grow faster than expected before.

Table 1. Changes and forecasts in selected macroeconomic indicators (%)

	2012	***2013****	***2014****	***2015****	***2016****	***2017****
Real GDP growth	3,2	*3,0*	*3,6*	*3,5*	*3,5*	*3,5*
Consumer price index	3,9	*3,4*	*2,8*	*2,8*	*2,8*	*2,7*
Growth in employment	2,5	*0,3*	*0,4*	*0,0*	*0,0*	*0,0*
Real salary growth	1,9	*2,5*	*3,5*	*3,3*	*3,1*	*3,2*

Source: Ministry of Finance spring 2013 economic forecast

Impact of measures on economic growth

Compared to the baseline scenario of the economic forecast, Estonia's national target levels under the objectives of the Europe 2020 strategy are significantly more ambitious. In setting the targets, the presumption is that it will be necessary to implement new measures and carry out reforms. If the desired impacts materialize and the 'Estonia 2020' goals are achieved, the cumulative total impact of the measures and reforms on the changes in the primary economic indicators were summarized when compiling the strategy in the following table.

Table 2. Positive scenario with regard to macroeconomic indicators related to Estonia 2020

%	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Real GDP growth	4,0	4,0	3,7	3,7	3,6	3,5	3,5	3,6	3,7	3,8
Growth in labour productivity	1,8	2,1	2,5	2,7	2,7	3,4	3,6	3,6	3,5	3,5
Increase in number of employed	2,2	1,9	1,1	1,0	0,9	0,0	-0,2	0,0	0,2	0,3
Unemployment rate	13,5	11,4	9,9	8,6	7,7	7,5	7,4	7,2	7,0	6,9
Real growth of export	15,9	5,5	8,2	9,1	9,7	9,3	9,2	9,2	9,1	9,0
Productivity, % of level in EL27	69,6	70,1	70,7	71,6	72,4	73,8	75,4	76,9	78,4	**80,0**
Employment rate, 20-64 year-olds	67,8	69,1	70,1	71,2	72,5	73,0	73,5	74,3	75,1	**76,0**
Share of world trade	0,099	0,097	0,097	0,099	0,101	0,102	0,104	0,106	0,108	**0,110**

Source: Ministry of Finance and the Government Office (spring 2011)

In describing the possible impact, the precondition is that compared to the baseline scenario, a positive influence will accompany the rise of the employment rate and labour productivity starting in 2013, and that this influence will then increase over time. The first, more rapid and smaller-scale impacts should become apparent already in the coming years, but it will take more time for the major impact to make itself felt. This means that labour productivity and employment would rise 0.1-0.2 percentage points more during this period, and as a result thereof, economic growth would be 0.1 percentage point more in 2013, 0.2 pp faster in 2015 and 0.5 pp faster in 2020.

Compared to the data on which the economic forecast is compiled, the positive scenario means quite a small difference in the case of the employment target set in the plan, but in actuality, the objective will be rendered a serious challenge by the fact that long-term and structural unemployment account for quite a large share of total unemployment, which makes it difficult to put people to work. The rate at which Estonia is catching up to the average productivity rate in the European Union must also increase significantly, and this is directly related to the need for an increased share of higher value added products and services both in the entire economic structure as well as among export articles.

The most ambitious objective can be considered to be the objective of increasing the share of Estonian exports in world trade, which would mean a significant change in export developments and in economic potential more broadly. Estonian export has been successful in the world economy in the past and the recovery has been rapid, which allows us to presume that a similar trend could continue in the future as well, given that the necessary additional measures are implemented.

LONG-TERM ECONOMIC POLICY OBJECTIVES

The three primary groups of factors that impact GDP growth are: 1) demographic factors, 2) extent to which the workforce is utilized in the economy (largely described by the employment rate and the number of hours worked by people) and 3) hourly productivity. Estonia's GDP growth up to 2007 was impacted above all by changes in the number of employed people and the productivity of the workforce. The greatest influence on the GDP growth that preceded the crisis came from the continuous rise in productivity.

Estonia's future demographic trends are similar to the general trends in Europe. The population decrease in the 1990s has not yet impacted the percentage of the working-age population but a noteworthy impact will become evident in the coming years. The decrease in population will take place primarily in the working-age population (15-64-year-olds); and in 20 years, according to Eurostat estimates, Estonia will have more than 100,000 fewer working-age people. At the same time, the relatively high share of non-citizens sets clear limits on Estonia's possibilities to import labour, this being the route utilized by several other European Union member states to increase the size of the workforce.

Table 2. Change in working-age population up to the year 2030

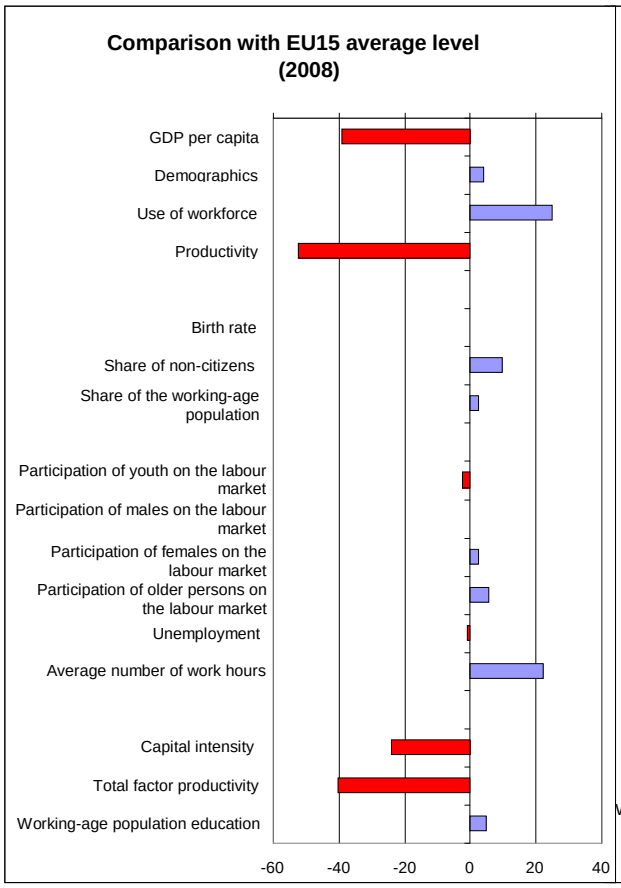
	Working-age population (15-64)	**Decrease from 2010**	**Decrease in working-age population, %**
2010	908 000		
2020	843 000	-65 000	-7 %
2030	801 000	-107 000	-12 %

Source: Eurostat, European Commission's Ageing Report

To maintain the economy at the current volume, there will be an increasing need for employees each year, as a result of which the **need for higher employment will grow in future**. This in turn will mean a need to increase the employment rate in all regions of Estonia.

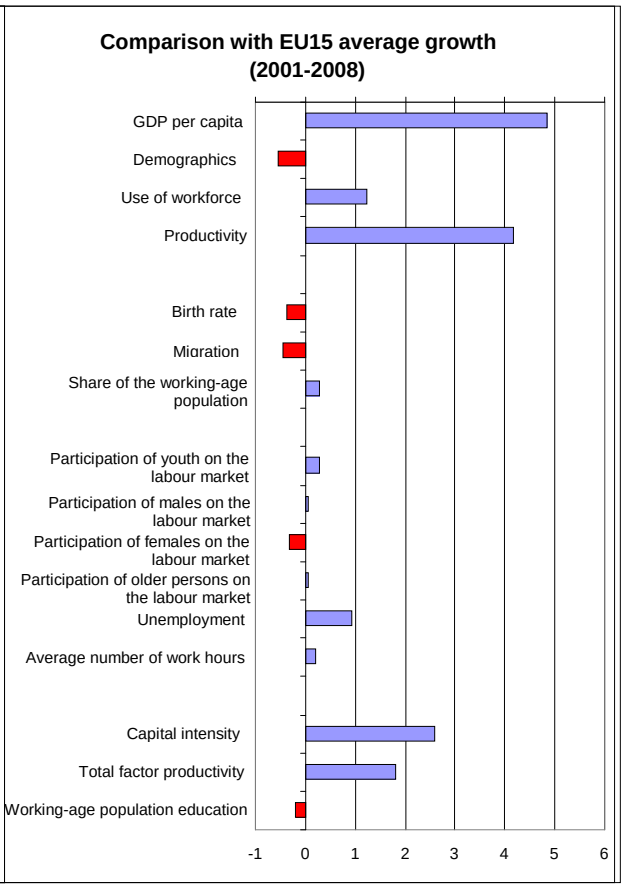
The employment level dropped in the years of crisis after peaking in Estonia in the interim period, but it has restored fast and risen a bit higher than the European Union average. For this reason, in spite of the decreasing number of youth reaching working age, Estonia will find it possible to significantly restore the employment rate of the workforce. Current rising employment and, in the long term, the readiness of those 65 years of age and older to work should help soften the decrease in the working-age population. Based on the figure below it should be clear that **for affluence to grow in future significantly, the value added created by Estonian enterprises must grow, first and foremost.**

Figure 2. Comparison of the levels of components of the GDP of Estonia and the EU15, based on 2008 data[1]



Source: **European Commission, Government Office**

Figure 3. Comparison of the growth rate of components of the GDP of Estonia and the EU15, 2001-2008



Source: **European Commission, Government Office**

The average real growth in productivity in Estonia over the past 10 years has been faster than the average for Europe (even when we include the downturn in 2009). **At the same time, GDP per capita in comparison with the EU15 continues to be low, and the primary reason is relatively low productivity** (approximately one-half of the average for the EU15)**.** The low level of productivity is related to both low total factor productivity[2] and capital intensity. In essence, this means that companies have invested little, that a great amount of human resources is expended, that they manufacture relatively inexpensive output and provide low value added services.

[1] The horizontal axis on the figures shows the difference in the level of the Estonian and EU15 average in percent (based on the data for 2008).
Demographics is an aggregate indicator based on three sub-components and shows to what extent population processes have impacted the size of the working-age population compared to the EU15 average.
Use of workforce shows how much work inhabitants of Estonia do. Among other things, it views the number of hours of work per employee.

[2] Total factor productivity is construed as all that takes place in internal processes of economic units (primarily companies). It is impacted to a great extent by the level of implementation of technology, economy of internal processes, effectiveness of everyday management etc.

The rapid decrease of the working-age population and an analysis of Estonia's GDP components show that regardless of their region or gender, the working-age population must be engaged to the maximum extent possible in high value-added enterprise.

Thus there are **two primary and central challenges in the context of Estonia's prospects for continued growth:**

- **to achieve rapid growth in productivity** through products and services with greater capital intensity and higher value added;
- **to return to the high employment level of the pre-crisis period.**

The following objectives are set for 2020:

Increasing the employment rate in the 20-64 age group		
Initial level 2010	**Estonia's target 2015**	**Estonia's target 2020**
66,4%	**72%**	**76%**

Compared to the 2010 employment level and considering the declining population trend it will be necessary to bring **approximately 43,000 more people into the workforce** in order to attain the 76% objective[3]. The 2015 objective has been essentially met in 2012.

Increasing productivity per employed person compared to the European Union average		
Initial level 2009	**Estonia's target 2015**	**Estonia's target 2020**
65%	**73%**	**80%**

The precondition here is that the EU's productivity will grow by an average of over 1% a year and that Estonia's productivity per employed person will grow approximately two percentage points faster than the average EU indicator. Achieving the 2015 level will require real GDP growth of an average of 4.4% per year in the period from 2011-2015. In the period 2003-2010 the average real GDP growth per year was 3.2% and in the period from 2004-2010 labour productivity grew an average of 3% per year.

To achieve these goals, the current policy must be continued and developed further for the purposes of raising the skills of employees, increasing the workforce, increasing the volumes of research and development in the private sector, developing infrastructure that supports enterprise on the international level and promoting investment (especially in the fields with export potential and higher value added).

[3] It also takes into consideration the fact that the generations leaving the labour market for retirement in this period are larger than the cohorts of new people entering the labour market.

WELL EDUCATED PEOPLE AND INCLUSIVE SOCIETY

Under the education and integrated society field, the government policy focuses on the labour market, including actively involving all groups in society and offering qualified workforce and the quality and availability of education at all educational levels.

ESTONIA 2020 OBJECTIVES

The following primary objectives will be set for the year 2020 in the Estonia 2020 competitiveness strategy:

Reducing the share of early leavers from education, i.e. the percentage of young adults (18-24) with at most lower secondary education and not in further education or training		
Initial level 2010	**Estonia's target 2015**	**Estonia's target 2020**
11.7%	**11.0%**	**9.5%**

To achieve the goal, it will be necessary to completely implement ongoing policy changes that reduce the school dropout rate and to develop additional measures. Achieving this objective will reduce the number of people who discontinue their education by around 12,100 people compared to the 2009 level. Attaining the 2015 objective would mean that 8,500 fewer youths have discontinued their educational path compared to 2009.

Increasing the tertiary educational attainment, age group 30-34		
Initial level 2010	**Estonia's target 2015**	**Estonia's target 2020**
39.7%	**40%**	**40%**

The goal was set on the assumption that in the long term, the primary priority of educational policy is raising the quality and international competitiveness of higher education, as well as increasing the number of higher education student places financed by the state. The percentage of people with tertiary education in Estonia has increased significantly in the past 10 years as from 2000 the number of higher school graduates has grown tremendously (the so-called higher education boom). 2010 saw a great growth from 35.7% to 39.7%. Fulfilling the objective will be supported by the "back to school" project launched in 2010.

Reducing the at-risk-of-poverty rate after social transfers		
Initial level 2010	**Estonia's target 2015**	**Estonia's target 2020**
17.5%	**16.5%**	**15%**

In 2009, the at-risk-of-poverty rate after social transfers stood at 15.8%, which is the lowest it has been in recent years. A reduction in the at-risk-of-poverty rate was caused by the drop in the at-risk-of-poverty threshold. At the same time the income levels equalised, the social protection benefits retained at the same level, and the pensions rose 5%. As 2009 was an exceptional year when it came to the recession and decrease in employment, the data for 2010 was used as a basis for setting objectives – according to which relative poverty rate was 17.5. The forecasted increase in the at-risk-of-poverty rate is due to an increase in the poverty level, which is the result of a continued increase in employment and incomes.

The unemployed and those over 65 and living alone have always faced the greatest risk of poverty. In 2009, more than 42,000 pension-age people emerged from relative poverty on the

backdrop of somewhat of a rise in pensions and general drop in incomes. In the Estonia 2020 strategy, Estonia set as its objective to decrease the at-risk-of-poverty rate primarily through increasing employment and increasing the general educational level. For Estonia, it is important to reduce the at-risk-of-poverty rate after social transfers to 16.5% by 2015 and to 15% by 2020.

Increasing the participation rate in lifelong learning among adults (25-64).		
Initial level 2010	**Estonia's target 2015**	**Estonia's target 2020**
10.9%	**15%**	**20%**

In the years 2001-2006, the participation of Estonian adults in lifelong learning ranged between 4-7%. A breakthrough took place in 2008 and the Estonian indicator exceeded the EU average level. In 2009, the participation rate in lifelong learning rose to 10.6% and by 2012 the level of 12.9% has been reached. The government has set the goal of reaching the level of 15% of adult participation rate by 2015. By 2020, Estonia's objective is to increase the lifelong learning participation rate to 20%.

The prerequisite for achieving this objective is that additional substantive and financial measures in remarkably larger volume need to be implemented for increasing the adult participation rate in lifelong learning. These include particularly broadening the opportunities for adults to take part in the training and retraining measures, increasing the financing of adult training measures and offering vocational education to adults who lack professional education.

Reducing the share of adults (25-64) without any professional education or vocational training		
Initial level 2010	**Estonia's target 2015**	**Estonia's target 2020**
32%	**32%**	**30%**

A large percentage of Estonia's workforce (age group 25-64) has a basic or general secondary education only and does not hold a professional education (vocational or higher education). The number of people who lack a professional education is highest in the youngest age group, among those 25-34 years of age – 35% in 2012.

The goal was set taking into consideration ongoing measures for providing opportunities for acquiring a degree to those who discontinued their education. It was also planned to implement additional measures that must be implemented in the years ahead to increase the share of adults with professional education.

Reducing the long-term unemployment rate		
Initial level 2010	**Estonia's target 2015**	**Estonia's target 2020**
7.7%	**4%**	**2.5%**

Due to the decrease in the total number of jobs caused by the economic recession, the share of the long-term unemployed went through a major increase in 2010. In 2011 and 2012 the number of long-term unemployed somewhat decreased (to 49,300 and 38,200, respectively). In 2012 also the share of the long-term unemployment decreased.

If in 2008 the share of the long-term unemployed in all the unemployed was 31%, then in 2011 it was 57% and in 2012 54%. At the same time the long-term unemployment rate in the

total workforce indicates a downward trend – in 2010 it was 7.7%, in 2011 7.0% and in 2012 5.5%. In the years ahead, it is expected that the overall employment growth will slow down. To fulfil the set objective, it will be necessary to take more effective the measures aimed at activating the unemployed and to increase the impact of active labour market policy.

Decreasing the youth unemployment rate (age group 15-24)		
Initial level 2010	**Estonia's target 2015**	**Estonia's target 2020**
32.9%	**15%**	**10%**

During the economic recession, unemployment has increased more rapidly than average among youth, reaching 32.9% in 2010. Yet youth unemployment started to decrease in 2011, reaching 22.3% and the decline has continued – in 2012 the youth unemployment rate was 20.9%.

The goal is to bring the youth unemployment down to at least the pre-crisis level (12% in 2008). To do so, it is planned to implement additional measures specially aimed at the younger generation (for example, the "EU youth guarantee"). It is important to provide a high-quality education and implement measures designed to combat dropping-out from school, which will ensure all in all that youth are better prepared to enter the labour market.

Increasing the labour participation rate (age group 15-64)		
Initial level 2010	**Estonia's target 2015**	**Estonia's target 2020**
73.4%	**74%**	**75%**

In spite of unemployment, which increased during the economic crisis, people's economic activity and the workforce participation rate have remained relatively stable in recent years. A positive trend is that part of the increase in unemployment was caused by a drop in the non-active population and the fact that people who were previously away from the labour market have started looking for work. The goal was set considering the forecasted rate of recovery of the economy and the labour market as well as the decrease in the workforce due to demographic trends.

PRIORITIES OF GOVERNMENT POLICY

Quality, availability and effectiveness of education

1. Improving the quality of the educational system and adapting it to demographic changes.

The decrease in the number of students due to demographic changes has the greatest impact on the upper secondary school network followed by higher educational institutions. The number of basic schools and vocational educational institutions has decreased in recent years and thus adaptation to demographic developments has to a significant extent taken place. **To ensure balance between the quality and availability of general education,** basic education should be available as close to home as possible while upper secondary school level studies on the other hand should be available in larger county population centres.

The number of higher educational institutions has also decreased and due to the establishment of stricter quality requirements higher education has reached a situation where all the higher educational institutions in Estonia have the right to issue nationally recognized diplomas. **The**

division of labour and competences between higher educational institutions is one of the most major higher educational system and reform objectives. In the long-term perspective, the new institutional accreditation procedures adopted in 2011 will contribute to a clearer differentiation between educational institutions.

Transfer to the activity support system instead of the earlier admission system based on the state-commissioned education helps improve the effectiveness and efficiency of the higher education system.

Compared to other EU countries, a relatively small percentage of basic school graduates in Estonia proceeds to study in vocational education. However, the need for a skilled workforce complying with the needs of the qualified labour market is great. It is important that **the vocational education system would ensure the preparation of a workforce of the required qualification in order to comply with the needs of companies and the society.** The activities as a result of which vocational education will become more attractive and will consider the needs of the society more than before are as follows: the development of vocational education curricula into output-based ones, shaping the qualification framework, changing vocational educational institutions into competence centres and engagement of entrepreneurs in making choices concerning vocational education. The education system of the state should be viewed as a whole according to the objectives of lifelong learning, which would, inter alia, also mean planning student places together with other study levels.

To direct the choices of the youth and to reduce the school dropout and unemployment, **support systems, incl. study counselling and career services** (career studies, career information and career counselling) **must be developed**. In addition, non-formal education and youth work also play an important role in supporting the readiness of the youth for coping with the challenges that they face. In order for the youth to adjust better to their later working life, in general education it is necessary, in addition to the factual knowledge, to **develop creativity, initiative and shape students' other social key competences**. It is important to make schools financial models more result oriented. The preparation of support specialists as well as the substantive quality and availability of support must also be improved.

A decrease in the number of upper secondary school graduates results in lower admissions figures in bachelor's and professional higher education, postsecondary vocational education, but also master's degree level studies. For higher educational institutions, this means that opportunities for lifelong learning become more important on the master's degree level as well as a decrease in the number of curricula.

Teacher training must ensure the ability to fulfil the general goals of the curriculum and to shape students' key competences. The qualitative level of teacher education and primary training must increase and later career should be supported by substantive in-service training corresponding to the development needs. The teachers' salary system must promote initiative, creativity and professional development of the teachers, incl. value the teacher's profession.

The level of financing general education has remained unchanged despite the fact that student numbers have been decreasing consistently. For this reason, the per-student financing of vocational education with respect to general education has decreased, and the expenses per student in general education are higher than they are in vocational education. Also, the share of financing tertiary education in Estonia is low among the OECD countries compared to general spending on education. With regard to financing education, the **proportions of**

financing different types of education should be reviewed and more emphasis must be placed on effectiveness.

In planning structural funds for the subsequent periods, it should be borne in mind that infrastructure investments will decrease in some respects, because a large part of the infrastructure has already been created or renovated, while it is important to ensure IT-infrastructure developments of educational institutions. This allows more funding to be directed toward substantive developments in the educational system. It should also be borne in mind that the fixed costs of maintaining the new infrastructure will put added strain on the budget.

Due to internationalization, in coming years more emphasis will have to be placed on organizing education for children with an immigrant background, based on the objectives of integration. It will be important to take into consideration the ethnicity of the new immigrants and increase in the cultural diversity. **The availability of an international general education is the prerequisite for highly qualified workers coming to Estonia to work.**

The most important reforms planned in this field are optimizing the network of general educational schools and more clearly separating basic schools and upper secondary schools, fully implementing the basic school and upper secondary school state curricula, increasing the quality of vocational education and its conformity to the labour market needs, and expanding the possibilities afforded by international general education (including implementation of IBO curricula) in Tallinn and Tartu and creating an European school**.**

2. Bringing labour qualification into conformity with the needs of the contemporary labour market (among other things, making better use of the opportunities of EU internal market policy and other policies) and increasing the share of people with professional education at the vocational or higher educational level.

A total of 30% of Estonia's workforce has a basic or general secondary education and does not hold a professional education (vocational and higher education). By age group, the problem is greatest in the youngest age group (25-34-year-olds), where the share of people who lack professional education is the highest (35%) and when we view data for a long period, we see that a slight decrease has taken place only in the last couple of years.

At the same time, the new jobs that arise with changes in economic structure will require employees to have a higher educational level and up-to-date skills. To better integrate the needs of the labour market and people's skills, as well as to increase the productivity of the workforce, it will be necessary to ensure that there is an ample future supply of employees with up-to-date skills. For this purpose, it is above all necessary to **increase the share of the working-age population with professional education (i.e. vocational or higher education)**.

To define the exact trend in the training need, a clear and operational labour market input is required. Monitoring of competence-profile-based changes in the labour market and linking it with the forecast of the quantitative workforce need is one of the possibilities for solving the problem. Analysis of the dynamics of qualitative changes in the labour market requires an input from various authorities and their close substantive cooperation.

People with skills and an education that matches the labour market needs stand a better chance of finding a job, which in turn prevents high and long-term unemployment from developing. Thus, it is important that the structure of the educational system by various types of education conform to the needs of the labour market stemming from the economic structure.

A major reason for the large share of people without professional education in the case of younger people is the fact that they prefer general secondary education to vocational education and that many drop out of school.

The quality and competitiveness of human resources are impacted by students dropping out at all educational levels. The dropout phenomenon is the most noteworthy in the third stage of study of basic school and in the first year of upper secondary school and vocational studies, which is a sign that the academic process and environment do not support the development of every student in line with their abilities. Thus special attention and support must be devoted to **implementing the new state basic school and upper secondary school curricula and the new Basic Schools and Upper Secondary Schools Act.**

The higher dropout rate at vocational and higher educational institutions can be correlated with students' low level of knowledge about the working life and lack of learning skills, which often leads them to make the wrong professional choices, which in turn causes them later to discontinue studies. For this reason, it will be important to **continue to develop career counselling, etc. services, and to increase the availability of such services** with the purpose of better supporting students' educational and career choices.

High-quality pre-school education is important to ensure that all children are equally prepared for entering school. We need to devote more attention to early **discovery of children's talents and abilities, stimulating their minds and promoting their development**. This will help students create associations between different fields and the knowledge of subjects needed for working in such fields, which in turn will lead to greater motivation to learn.

The planned reforms focus on creating opportunities for young people with a basic education to acquire a professional education, significantly increasing the opportunities for adults in participating in training and re-training measures, and increasing the availability of career services and career counselling.

3. Increasing the international competitiveness of higher education.

Estonian universities and higher educational institutions compete on the global higher education market, where there is stiff competition for talents. Along with the increase in economic well-being, more young Estonians are studying at universities abroad, and they primarily favour Finnish, German and British institutions of higher education. Promoting student mobility in the interests of obtaining a more diverse education is of key importance. The **supply of competitive higher education** must also be ensured, above all in Estonia. A total of 3% of today's university students spend some time studying abroad. **The target set in the European Higher Education Area is for 20% of graduates to have mobility experience by 2020**.

According to projections, the number of students at the first stage of higher education will decrease by around 5% a year in the near future. In connection with changes in the

demographic situation, it will be possible to increase admissions to master's and doctorate programmes, taking into consideration quality and the need to retain critical mass in higher education and in fields that are critical to Estonia, as well as maintaining a rational division of study areas between institutions of higher education.

Supporting internationalization of higher education serves three primary purposes. It creates an opportunity for Estonian students in higher education to widen their horizons, obtain experience studying and living in a different cultural environment and creating contacts, all of which are important components in later working life in an increasingly global world. Also important is "internationalizing at home" – attracting **talents to areas that are important for the Estonian economy** or becoming more active in hiring foreign faculty members to work at Estonian institutions of higher education to give Estonian students who are unable to study abroad an opportunity for contacts with an international environment. For the purpose of better integration of foreign faculty with the work and study environment, they must be provided with better opportunities for the participation in research. Foreign students who leave the country after their studies are also important for Estonian society. They may become "ambassadors" for the Estonian state, culture and economy in their own country, who can contribute to developments in Estonia through their contacts. Thirdly, we should take into consideration that competition and quality in higher education and the academic sphere in general are international. An international comparison is the basis for the quality standard and international mobility creates opportunities for recruiting better employees.

The internationalization of higher education encompasses both the mobility programmes aimed at Estonian students and faculty as well as measures for encouraging foreign students and faculty to come to Estonia. Thanks to the special measures implemented, admissions of foreign students to Estonian universities have increased in recent years. Continuing the current activities, the goal for 2015 – to admit 2,000 foreign students – is attainable. To do so, it will be necessary to continue to further develop the existing measures and **to make Estonian higher education more attractive to foreign students**. Besides acquiring an education, it will be important to create more possibilities for foreign students **to stay in Estonia to work after graduating from university**.

The more active influx of foreign students and faculty is hindered by the current procedures for obtaining visas and work permits, which is relatively slow. There is limited opportunity for family members to accompany applicants and this privilege currently extends only to prospective university students at the Ph.D. level. In addition, the Aliens Act currently in force is interpreted differently in different Estonian foreign representations as well as those of countries representing Estonia. Thus it will be **necessary to revise the current procedures for giving work permits with the objective of making it easier for potential top-level specialists and highly qualified employees to enter the Estonian labour market**. Those processes are linked with the related services that help people adapt to life in Estonia, meet their expectations connected with the settlement of their family members here and contribute in any other manner to the possibilities of their self-realization in Estonia.

In the field of higher education, the objective is to significantly increase the number of state-funded student places and to raise the quality of higher education through greater internationalization.

Labour supply

4. Increasing the impact of active labour market policy and sustainability of financing

To prevent and decrease the duration of unemployment it is important to continuously increase the **effectiveness of the provision of active labour market measures and enable the growth of their impact**. The low share of the unemployed participating in active labour market services due to the rapid growth of unemployment during the years of crisis has again started to increase.

In the coming years there is the risk that the high share of long-term unemployed and structural unemployment will persist for a longer period. Thus, in the coming years, more attention will have to be paid to **preventing and reducing long-term unemployment and unemployment among young people**. Better cooperation with local government institutions plays a significant role here (activation measures, resolution of social problems etc).
Support must also be provided for the transition of **the youth from education to labour market**. Measures must be applied for finding youth not in education, employment or training (the so-called NEET youth) and for bringing them back to vigorous activities.

It will be important to tighten the institutional cooperation and more clearly define the responsibilities of the Ministry of Education and Research, the Ministry of Social Affairs, the Unemployment Insurance Fund and local governments in reducing and preventing the unemployment. Opportunities must be created to allow unemployed who lack professional education to acquire qualifications in the degree level study. As to unemployed people who hold primary qualifications, they must be provided with additional opportunities to acquire higher or supplementary qualifications that would markedly increase their future competitiveness on the labour market. It is also important to deal more with unemployment prevention as it is significantly more costly and complicated to eliminate the consequences of unemployment.

It will be necessary to reinforce, in practice, the link between provision of active labour market measures and the benefits/allowances disbursed to people. The principle that receiving benefits entails obligations for the recipient to actively search for a job needs to be implemented into practice more clearly. To evaluate whether the active labour market policy is having the desired effect, it will be necessary to continue with a systematic monitoring and evaluation for assessing the impact of active labour market services.

In regard to the ageing workforce, in the future it will be important **to provide more measures for helping older people to return to the labour market** and to facilitate their working life.

An objective is also **the reform of the** current **disability system**, which would ensure the sustainability of the system, preserving and improving thereby the fitness for work among the working-age population, prevent unemployment and decline in working ability and support the returning of people to the labour market. The reform brings into focus the best use of the working ability of working-age people who have health damage, incl. the emphasis will be on **measures supporting access to employment** and **working aimed at people with reduced capacity for work and people with disabilities**.

A significant hindrance to the participation in employment is **the burden of care** that may be caused by taking care of children as well as of disabled and elderly family members. Therefore, special attention should be paid to reducing the withdrawal of the workforce from the labour market due to long-term illness, incapacity for work, disability or caring obligations and improving independent coping, incl. by providing special-purpose welfare and support services. Investments in **the living environment and support services of disabled and elderly people** allow improving the access of both their own as well that of their family members to labour market services and to the labour market itself.

For the purpose of (re)entry to the labour market after being at home with a baby and reconcilement of work and family life, **the availability of high-quality, affordable and flexible pre-school education and day care services must be improved**. It is also important to support the creation of childcare places according to regional needs. Additional support services (support person, personal assistant, transport, etc.) are required to enable the participation of disabled children in day care and education and the participation of their parents in employment.

An amendment to legislation entered into force already at the beginning of 2011 that allows the unemployment insurance premiums to be used also to cover provision of active labour market measures. This ensures **the sustainability of financing for active labour market policy** after the ESF 2007-2013 funds have run out. In the following period it is possible to use the ESF funds to supplement labour market services and to develop and provide new services, where necessary.

5. Increasing healthy life expectancy by improving health-related behaviour and continuing to work toward reducing accidents and improving healthcare infrastructure.

Poor health-related behaviour, related illnesses and premature mortality among the working-age population leads to a significant loss of human resources. In the case of premature mortality, a major role is played by behaviour that jeopardizes the health (e.g. use of alcohol, disregard for hazards, low level of physical activity, smoking, eating an unbalanced diet) which is an important for continuing to extend life expectancy. The primary cause of death in Estonia over the years has been heart and circulatory diseases, neoplasms and injuries.

People’s positive health behaviour is most impacted by the comprehensive provision of different measures, including increasing people’s awareness, providing required services, establishing regulations that provide restrictions and incentives as well as an effective enforcement mechanism. This approach has been successful in recent years in such fields as water safety, leading to a significant drop in the number of drowning fatalities.

Another key reform was introducing health awareness, traffic safety and risk avoidance topics into basic school and upper secondary school curricula in early 2010. The new human studies syllabus will become effective at the first stage of study in autumn 2011, in the second stage of study in 2012 and in the third stage of study in autumn 2013. Health and safety is an overarching topic in the upper secondary school curriculum as well.

In the coming years, it will be important to direct resources at improving health-related behaviour among the working age population as well as prevention of injuries and fatal accidents due to injury. It is planned to implement an **inter-ministerial injury death**

prevention policy and to continue the **development of light-vehicle roads** to ensure traffic safety. It is also planned to develop **recreational sites that support sports and an active lifestyle, improve awareness of fitness among the working-age population** and **develop measures to improve the eating habits of people,** in order to reduce health problems caused by nutrition.

To reduce on-the-job accidents and ensure a working environment supportive of good health, it is necessary to continue efforts to **establish an occupational accident insurance system**. Negotiations with organizations representing unions and employers have been under way for many years, but the creation of a new type of insurance temporarily fell by the wayside due to the recession.

It is also planned to increase the amount and scope (incl. the involvement of all important risk groups in the programmes) of evidence-based **health monitoring and screening programmes (such as for cancer)** to ensure that diseases and serious health problems are detected as early as possible and treatment can be started.

In the last ten years substantial investments to the quality of healthcare infrastructure and optimising the hospital network have been made. It is important to continue the **development of healthcare infrastructure** that takes into account the needs and possibilities of the aging and declining population. For the purpose, it is important to ensure strengthening of the basic medical care (family doctor system) and further optimum development of hospital network providing specialised medical care. Attention must also be paid to the development of quality systems and relevant indicators being monitored as well as to the development and use of e-health information system.

COMPETITIVE BUSINESS ENVIRONMENT

The field encompasses a number of major subsectors such as research and development, innovation policy, enterprise and entrepreneurship and the development of a legal environment and public infrastructure (above all transport connections) that are favourable for enterprises.

ESTONIA 2020 OBJECTIVES

The following objectives have been set for 2020:

Raising the level of investments into research and development		
Initial level 2009	**Estonia's target 2015**	**Estonia's target 2020**
1,42%	**2%**	**3%**

Based on previous experience, the goals set and the latest economic forecasts, this would mean around 0.8 billion euros in R&D spending in 2020 – a quadrupling of R&D spending compared to 2009, assuming that the GDP in nominal value would be close to twice as large as before.

The average annual increase in Estonia's funding for R&D activity from 2000-2009 was 10.1%, which was the highest figure in the European Union. Due to the initially low benchmark, growth was especially rapid in precisely the private sector – an average of 18.4% per year. During the economic crisis, the government set a goal of increasing planned public sector investments in a greater than planned amount (reaching 1.2% of GDP by 2011), to establish a good basis for private sector R&D investment growth, which would accelerate when economic recovery started.

Increasing the share of Estonian export in world trade		
Initial level 2009	**Estonia's target 2015**	**Estonia's target 2020**
0.085%	**0.100%**	**0.110%**

In past years, the growth of the market share of Estonian export as a percentage of total world export of goods and services took place at a time when world trade was growing rapidly. In light of the economic growth forecast, raising export volumes would mean a separate goal of increasing the share of export beyond 120% Estonian GDP, which would presume an export volume of over 30 million euros per year in 2020. The precondition for attaining the goals is that Estonia's export volumes must grow at a rate 2-3 percentage points more than the world average for economic growth.

Increase in labour costs[4] does not exceed the growth rate of productivity		
Initial level 2011	**Estonia's target 2015**	**Estonia's target 2020**
-2.8%	**0%**	**0%**

The growth rate of workforce expenses in the boom years of the previous economic cycle outstripped the growth of productivity. After the recession, the volumes of work increased both in the industrial sector as well as in most service branches, due to which sales revenues grew and profitability recovered. There was a significant impact on companies' operating costs, above all on cuts in workforce expenses, accompanied by growth in effectiveness and

[4] Real labour unit cost, change in ratio of labour costs to value added generated per employee

an increase in competitiveness. As a result, the imbalances in internal demand that occurred during the boom have abated, the growth of labour productivity now outstrip the growth in average wage, helping reduce the discord, which will be important to monitor in coming years as pressure on wages will presumably rise.

PRIORITIES OF GOVERNMENT POLICY

6. Shaping a policy that promotes long-term growth in the international competitiveness of companies.

The challenges with regard to the business environment in the medium-long range perspective will not change significantly. **Starting a business, developing and increasing the efficiency of companies, internationalization, innovation and cooperation continue to serve as the framework in which developments could take place.** As a general direction, the **support policies must move towards financial measures**, which enables more extensive use of public and private sector resources.

Still the **most important** for Estonia is **to ensure growth of productivity and improve access to capital for entrepreneurs.** Financing issue will become more urgent in connection with limited resources at the expansion and growth stages of companies. **Subsidization policy should support the implementation of companies' ambitions for growth as well as making the processes more effective.** Great emphasis must also be put on the development of complete measure packages supporting companies. A prerequisite is finding out the needs of companies in more detail, their more long-term planning focus and the integral management of resources and know-how aimed at support.

Issues related to availability of suitable workforce also remain central. These issues pose a challenge first and foremost to the adaptive ability of the education system. The growth of competitiveness of the business environment could be promoted mainly with **regulatory stability**, leaving room for changes that serve purposes of modernizing the environment (including expanding and deepening the European internal market). **Companies' export needs more lasting state support** in the broadest sense i.e. what is needed is counselling and training as well as for direct subsidy measures and security measures to continue.

The Estonian business environment is considered to be advantageous in comparison with other countries. Yet more specific challenges must still be addressed. With regard to the regulatory environment, we need **changes in legislation for stimulating the implementation of priority policies in the context of economic development**. There must also be efforts to perform **systematic assessment and decrease the administrative burden** must also continue to be dealt with. **Maintaining the stability of the taxation environment** encourage entrepreneurs to invest into developing their business.

As more important measures for responding to the challenges, **financial measures must be created to make company processes more effective and support their ambitions for growth,** more high-quality counselling service and training for setting the targets must be provided, **a system for assessing the impacts of entrepreneurial subsidies must be developed** and **entrepreneurial subsidies must be consolidated,** continuing measures **aimed at supporting export and developing cooperation,** offering state support for entrepreneurs heading to international markets through **more effective use of foreign representations**.

7. Keskkonna loomine senisest suuremas mahus ekspordipotentsiaaliga ja suurema lisandväärtusega sektoritesse suunatud otseste välisinvesteeringute Eestisse toomiseks.

Continuing to ensure the growth of the level of foreign investments into Estonia and developing Estonian export depends on ensuring the **availability of qualified workforce**. There is a lack of both skilled workers – needed by domestic and foreign-owned companies – and people who would be capable of ensuring that entrepreneurs are successful on export markets.

To draw investors, they must **be offered attractive benefits that would be competitive in international comparison.** It would also be necessary **to develop support measures aimed at serving foreign investors. Estonia's general reputation and the social environment** should also gradually become **success factors** in attracting new foreign investments. Foreign investments with a high added value take on key **impact on the shaping of supply chains** and thereby can open new **export opportunities for Estonian entrepreneurs**. Such foreign investments also promote the **transfer of knowledge and skills** and research and development intensive investments contribute to improving competences in the field in the broader sense.

There are definite arguments that are important for different investors in making an investment decision. Estonia is actively competing with other countries to attract foreign investments, tending to position itself as a destination country for **foreign investments that create higher value added and promote supply chains**. To retain and develop Estonia's competitiveness in attracting foreign investments, it will be important to implement a strategy for the development of a **comprehensive investment environment** that makes Estonia stand out in a positive sense. It is important to improve the export of **financial services and involved support services** to strengthen Estonian financial sector, which also adds to attractiveness of the investment environment.

The measure for **supporting major investors** that stimulate supply chains must be continued, the **capability of county development centres and local governments** to deal with regional investor service must be raised, **English-language information materials** must be created for promoting hiring of workforce and the **use of www.eesti.ee as a single contact must be simplified**. It is also important to develop a **comprehensive talent programme** and improve the **availability of foreign-language education** in Estonia.

8. Creating preconditions for increasing the volumes of research and development in the private sector and raising the number and quality of innovation outputs.

Although companies' research and development investments in Estonia are on the increase and the share of the R&D costs in the GDP has increased in the recent years, continuous efforts must be made to fulfill the objective set for 2020. The primary **challenge** that lies ahead **is to increase companies' innovation capability**. To do so, **research, development and innovation of companies operating in Estonia must be promoted**, but attention must also be devoted to bringing **knowledge- and development- intensive foreign investments** to Estonia. It will be important to **provide systematic support for young, innovative enterprises**.

We need a critical mass of vital development both in R&D and innovation "production" as well as for ensuring financial mechanisms to support young and innovative enterprises.

Increasing demand for R&D&I outputs has key importance, but this cannot take place solely by implementing one or two measures, it requires a full solution that would take into account the processes in the field from start to finish, in other words, from studies and experiments all the way up to the marketing of a finished solution. To create synergy, **mobility of knowledge and skills should be supported** and the **attractiveness of Estonia as a place to live should be improved**. It will be necessary to **support and ensure the access of Estonian companies to the global venture capital market**.

Public sector R&D capability, including on the university level, and effectiveness play a key role in companies' research and development capability and state or regional competitiveness indicators. Public sector R&D activity creates the necessary human resources for enterprise and provides access to modern infrastructure as well. The academic activity is a key connecting link between domestic and international networking of people and knowledge, which is one source for raising the innovation capacity of companies and attaining higher value added. In future, R&D&I will depend more on developments in the EU and on Estonia's **capacity to contribute to international cooperation, including in the framework of the European research area**.

In order for the position of Estonia not to fall in the international R&D (incl. the European research area), it is necessary to ensure balanced development of the R&D&I system. To increase the capacity of the R&D system, the research system reform must be completed. It means a considered and effective use of structural funds and state-budget resources in financing R&D investments.

As necessary measures, those measures diagnosing the needs of companies must be implemented, which would find out the possibilities for improving the competitiveness of the companies in the best manner. **If necessary, public procurement regulations should be transformed** into an engine of development in fields important to the state (innovation, sustainability, design, creative industries, space technologies). The needs for financing the support structures and reasonable organisation of business must be analyzed, **the R&D performance assessment methodology** must be developed and measures promoting **use of R&D infrastructure** aimed at entrepreneurs and **strengthening cooperation between research and companies** must be created. Companies with an ambition for growth must be provided with an integral counselling and financial supporting environment.

9. The broader use of the potential of the creative industries, ICT and other key technologies for raising the value added of other sectors.

For greater use of the potential of the creative industries, ICT and key technologies in future, it will be necessary to **promote activities that integrate the fields of training and internationalization as well as in financing**. To create additional value added from synergy between fields, attention should be devoted to **increasing the capability of human capital** in the broadest sense. Creating successful cooperation platforms requires the **existence of a favourable environment** and people that are able to take into consideration sectoral particularities. Use of ICT and other key technologies as **horizontal fields for improving processes in other fields** or for creating new initiatives will require cross-domain implementation support to advance to a new level.

As measures, the development of the support structures of creative industry must continue, an **export measure** aimed at creative industries entrepreneurs and **a measure for supporting participation** of creative industries entrepreneurs **in foreign competitions** must be developed, cooperation of creative industries entrepreneurs with other sectors must be promoted, **development environments** similar to those of the "Creative Centre" must be created, measures for **promoting cooperation between entrepreneurs, creative personnel and ICT people** and activities for providing content for the **creative industries entrepreneurs development programme** must be developed. **ICT substrategies** for greater integration of focus fields and a **measure for developing service sector's enterprises**, incl. developing the export potential of health services, must be created.

10. Developing human resources engaged in research and ensuring a future supply of engineers and top-level specialists.

The new generation of researchers and top-level specialists depends largely on those who have entered Ph.D. studies and the number of graduates. To this point, an obstacle to increasing the appeal of Ph.D. programmes has been the insufficient income for subsistence and the low level of social benefits offered to doctoral students. The Research and Development Organization Act makes it possible starting in 2012 to sign Ph.D. students to an employment contract that is accompanied by the same social guarantees as in the case of any other contractual employment relationship. This will make doctoral studies more attractive and increases the number of those who have defended a doctorate, as the increased sense of security promotes dedication to research. Moreover, the legislative amendment is an important step toward creating a young researcher's career system. For this reason, the complete implementation of the legislation is of key importance. In addition, it will be necessary **to implement additional measures for improving the selection of Ph.D. students and supervisors and successful completion of studies.** For faster graduation of Ph.D. students, it will be necessary to continue to support the activities of doctoral schools and centres of excellence in research.

The system for supervision of research papers in universities must be developed and the number of capable supervisors must be increased. One potential seedbed for supervisors could be study groups created in Estonia in which international faculty members participate. In order for highly qualified foreign faculty members and researchers to settle in Estonia, the working and living conditions must be made more attractive: the hindrances have often included the salary, which is not internationally competitive, as well as other rules restricting the circle of applicants. The establishment of unjustified language requirements and other restrictions upon carrying out internationally open competitions for filling the posts of research staff must be avoided. It is important **to promote the mobility of teachers in its various forms** and put value on effective supervision, where the supervisor would support graduation of PhD students and be motivated for performing high-quality supervision work through recognition and career.

11. Bringing transportation, ICT and other public infrastructure and institutions that support business to an international level.

Due to Estonia's location and settlement patterns, it is very important for the living and business environment that there are **connection possibilities, both cross-border and domestically, on a competitive level**. In developing local industry and services, the availability of public services in the case of well-functioning transport and information

exchange infrastructure should not depend on the particularities of the location. It is important for sectors exporting large-scale goods to ensure effective and competitive domestic road transport. Based on the movement patterns of the workforce, the **better interoperability of transport and connection points** requires special attention. It will be necessary to harmonize travel schedules in order to ensure the ease of use of public transport, and to create the corresponding infrastructure that will allow passengers and goods to move from one type of transport to another and in the long term, use **integrated planning to enable selection from among various transport type alternatives**. One output will be planning of use of funds in the EU's new financial perspective, in which stronger direction at the government level must be preferred to "bottom-up" competition.

In international comparison, the level of transport infrastructure has been relatively weak for Estonia, especially as regards the level of cross-border connecting routes, above all due to the cost of the investments and economic unprofitability, stemming from low population density and low number of potential users. For the same reason, the development of ICT infrastructure at a contemporary level to cover the entire country will not be possible without state support. However, for Estonia, in terms of development as business, scientific, cultural or educational environment and internationalization, these are key preconditions – and currently, limitations. Thus it will be important **to devote more attention to international connections, especially direct flights and cross-border railways and roads.** In the interests of balanced regional development, it will be necessary to continue developing not only international highways but dust-free surfaces for state secondary roads, to lay preparations for **linking public transport systems** and to continue establishing **quality high-speed Internet** infrastructure.

To do so, investments will continue into extending airport runways, into expanding terminals and improving the quality of equipment. Road construction requirements will be brought up to date and the safety and convenience of connection points between different types of transport will be increased. The large-scale project to cover all of Estonia with broadband Internet access will also continue in cooperation with telecommunications operators.

ENVIRONMENTALLY SUSTAINABLE ECONOMY AND ENERGY SECTOR

The field of environmentally sustainable economy encompasses development of the Estonian energy sector, energy efficiency in various sectors and general resource efficiency objectives.

ESTONIA 2020 OBJECTIVES

The following objectives have been set for 2020:

Level of greenhouse gas emissions compared to the 2005 level[5]		
2005 level	**Estonia's target 2015**	**Estonia's target 2020**
5647 thousand tons	**6156 thousand tons**	**6269 thousand tons** (+10% compared to 2005)

** The initial level of emissions – the actual point of departure for attaining the target – is an estimated 6021 thousand tons (average level of emissions 2008-2010)*

Greenhouse gas emissions in Estonia have been reduced significantly in the last decades. Whereas the estimated emissions of greenhouse gases in 1990 expressed in carbon dioxide equivalent were about 41,053 thousand tons, in 2010 there were siis 20,085 thousand tons of emissions (not including the LULUCF sector[6]), which means a decrease of about 51%.

The EU has set the goal of reducing emissions by 20% compared to the 1990 emissions level by the year 2020. The emissions reduction will be achieved by combining two mechanisms – the EU's emissions trading system and national targets for sectors outside the trading system. In 2013, the EU emissions trading system was launched on a new and uniform basis and auctions are the main permissible means for distributing emissions units; only under certain conditions will units be distributed for free. The EU has set the goal of reducing greenhouse gas emissions through the trading system by 21% compared to the 2005 level of emissions. National targets have been set for sectors that are not part of the trading system (buildings, transport, agriculture, waste etc) where Estonia's emissions should not increase more than 10% by 2020 compared to the 2005 level. The national targets and the EU trading system combined should result in a 20% reduction in the EU's emissions compared to the 1990 level.

Increasing the share of renewable energy to 25% of final consumption of energy		
Initial level 2009	**Estonia's target 2015**	**Estonia's target 2020**
19,5%	**23,6%**	**25%**

Estonia's goal is to increase renewable energy to 25% of final consumption of energy by 2020, which will require changes in all sectors. The share of renewable energy will likely increase through growing production of wind energy. Use of wood will also contribute to the goal. A 2007 amendment to the Electricity Markets Act established a support scheme for producing renewable energy in Estonia, which has strongly increased the share of renewable energy in recent years. With the current support measure continuing, the target set for Estonia will be exceeded and the measure is not proportional to the set target, due to which the support scheme is being changed.

[5] The objective will come into effect for sectors outside the EU emissions trading system.
[6] Land use, changes in land use and forestry

Preserving the level of final energy consumption at the 2010 level		
2010 level	**Estonia's target 2015**	**Estonia's target 2020**
2818 ktoe	**2986 ktoe**	**2818 ktoe**

In compiling the long-term forecast for energy use, Estonia proceeds from change in the GDP and sector-based developments, as a result of which it is presumed that final consumption in 2015 will be approximately 2962 ktoe and in 2020, approximately 3248 ktoe. Considering this, Estonia has set the goal of maintaining the final consumption of energy at the same level as 2010 (approx. 2866 ktoe) i.e. reducing final consumption of energy by approx. 11% compared to the level forecast for 2020. Accordingly, final consumption of energy in 2015 should not significantly exceed the current consumption and it should remain between 2938-2986 ktoe (approx. 4% lower than the projected level for 2015).

Keeping energy final consumption at the 2010 level will require decreased energy use, an increase in energy efficiency and the development of renewable energy solutions in all sectors.

PRIORITIES OF GOVERNMENT POLICY

12. Implementing long-term structural changes in the energy sector in harmony with Estonia's energy security and energy efficiency objectives.

A factor that is increasingly starting to impact the state's competitiveness is the existence of an environmentally sustainable and efficient energy sector. To keep in step with the international climate policy and reduce the energy intensity of the economy it is important to ensure the functioning of the EU internal energy market and **adapt the national development plan for the energy sector to the changes in energy market**. The greatest challenges lie in the electricity sector, where over 90% of electrical energy is generated from oil shale. A major keyword in the decade ahead is diversification of energy sources as by 2020, a situation must be achieved where the share of no single energy source exceeds 50% of the country's energy balance sheet. This covers both **expansion of co-generation of electricity and heat, reconstruction of oil shale fired plants and increasing the share of wind energy and biomass energy**. It is also necessary to decide whether Estonia's future energy generation portfolio will include nuclear energy.

From the standpoint of diversifying energy sources and energy security, it will be important to **establish sufficient energy connections** in the region and to retain the possibility of generating electricity on the basis of local energy sources. The electricity producers in Estonia and other EU member states must be provided with equal competition conditions in relation to producers in non-EEA countries.

As of 1 January 2013, Estonia's electricity market was opened in full for all electricity consumers. Whereas Estonia's electricity market is primarily concentrated in one electricity generating company, the open market will result in an increase in the number of electricity companies and changes in the price of electricity. On one hand, the competition will increase with the market opening up, which should ensure better service for end consumers. At the same time, the state should ensure that the procedural side operates as impeccably as possible and that the **market functions successfully**.

The current development plan for the energy sector defines the development directions and measures, but due to the developments in recent years it is important to review the objectives and measures and as a result the new energy sector development plan up to 2030 will be compiled.

13. Reducing the general resource and energy intensity of the economy.

ENERGY CONSERVATION

A factor that is impacting the state's competitiveness to an increasing extent is the energy intensity of the economy and the ability of various sectors to achieve energy savings through the adoption of new technologies and solutions. In light of better competitiveness as well as the obligations to the European Union, the objective of the government is to maintain energy final consumption at the level of 2010.

Energy efficiency is being promoted in Estonia in nearly every field, but the points of emphasis and nature of the measures have been very different. The energy efficiency policy has been very strongly aimed at households through various **measures that increase energy efficiency of buildings**. Investments have been made into energy efficiency in both state and local government public buildings. The primary instrument for influencing energy use in the transport sector has been excise duties, and the fuel excise has been raised on ten occasions in the last 15 years. Today's level of final consumption of energy in the sectors and the forecast for the next ten years shows that the greatest growth and the need for sectoral measures will be in industry, households and transport.

In the coming years, attention must be devoted to **conservation of electricity, motor fuels and other fuels in private households**. Investments into energy efficiency in apartment buildings must be continued and state measures for promoting energy efficiency of private houses must be expanded. In industry there is currently potential for an estimated 30% heat and 10% electricity conservation, and attaining this will require adoption of new technology and an increase in awareness. Energy use in transport must be controlled through three activity directions – **reducing the need for transport,** including making freight more efficient and sustainable, **increasing use of public transport and increasing the economy of vehicles**. **Public sector energy use** must be treated separately insofar as the behaviour of the public sector must serve as a role model for other sectors. Increasing capability for managing electricity consumption through development of an intelligent power grid in Estonia will also contribute horizontally to energy conservation in all sectors.

In light of the above, the most important measures will be making energy efficiency requirements for buildings more stringent, investing into apartment buildings, private homes, and industry; and various activities that decrease energy use of transport.

RESOURCE EFFICIENCY

Achieving sustainable economic growth means continuous development of more resource efficient, nature conserving and competitive economy.

In recent years, the Estonian government has carried out a so-called ecological tax reform, the goal of which is to **increase environmental taxes and reduce labour taxes**. The same direction must be continued in future, taking into account the opportunities of different sectors to adapt to an environmentally sustainable economy. Estonia has a well-functioning environmental tax system. By and large this system is completed, while details are still constantly being developed. A profound analysis of tax systems effects on companies must be carried out in order to establish new long term tax rates. Attention must be devoted to the aspect of assessing the **efficiency of tax revenue use** and the monitoring of **implementation of charges.**

In the next period for European Emissions Trading System (EU ETS) focus must be placed on development of **energy and resource efficiency of companies outside ETS**. Measures promoting improvement of energy and resource efficiency and reduction of CO_2 emissions of industrial companies and companies outside ETS, incl. SMEs, must be supported through innovative investment schemes. In order to achieve economic development and industrial competitiveness it is important to support **R&D in resource efficiency and eco-innovation investments.** Development of green technologies in water and waste management need special attention since natural circumstances offer a competitive advantage in these areas compared to other countries.

Preventing waste generation, reuse and recycling of waste are remaining priorities, particularly due to the high percentage of oil shale waste. It is important to find **recycling possibilities** by removing existing bottle necks that prevent greater use of oil shale waste for different products (for example grit stone).

Estonian natural conditions favour an increased and effcient use of agricultural and forestry land that creates preconditions for using renewable resources for energy production as well as food and wood industry. The use of wood as a renewable resource should be simplified in the limits of sustainable volumes. R&D in this field should look for solutions for **enhancing the value of biomass** in Estonia – i.e. to use it to produce products with as high a value as possible. One of the outputs of bio-economy is **reduced environmental impact of transport sector** for example through **more extensive use of biogas** instead of fossil fuels. For optimal resource use and decreased environmental impact it is important to implement measures for developing **more environmentally friendly public transport, carriage of goods, traffic flows** and green corridors in cities.

The competitiveness of industry requires efficient and secure access to raw materials and their safety of supply[7]. For effective and efficient use of mineral resources there is a need for **updating relevant legislation and target R&D activities** towards new and unused mineral resources and mining technologies. Correct economical values must be placed on **ecosystem services** in order to create long term secure supply of ecosystem services and new business opportunities. Therefore it is important to develop evaluation methodology for ecosystem services.

[7] COM(2011) 25

SUSTINABLE AND ADAPTIVE PUBLIC SECTOR

This field – a sustainable and adaptive public sector – encompasses government activities aimed at increasing macroeconomic stability and creating a general favourable economic environment; this means primarily tax and budgetary policy as well as activities related to developing the government sector itself.

ESTONIA 2020 OBJECTIVES

Structural surplus of the government budget		
Initial level 2010	**Estonia's target 2015**	**Estonia's target 2020**
0.1%	**0.7%**	**-**

Sustainable fiscal policy is the goal of the Government. The volume of the state budget has been quite stable in the recent years. The surplus that was in place since 2002 (1.5–2.5% of GDP) was replaced by couple of pre cents of deficit during the economic crisis in 2008 and 2009. The Estonian government sector budget was with a nominal surplus in 2010 and 2011, in 2012 it was with a small deficit; the budgetary position has been with the structural surplus already since 2009. The nominal position has been influenced by several one-time factors (i.e. revenues and investments from the AAU trade). Achievement of structural budget surplus shows that there are no structural sustainability problems in the budget and after the disappearance of the temporary effects the nominal position will also improve.

PRIORITIES OF GOVERNMENT POLICY

14. Reaching a government sector budget surplus by 2014 and maintaining this position in the long term

The medium-term objective of the Government is the **structural surplus** of the government budget. Surplus is the primary means for the government to prepare for the **negative pressure that demographic development will bring to bear on the budget** over the long term. The surplus will allow the state's already liquid funds it drew on during the economic crisis to be replenished in the medium-long term and creates a buffer against possible economic setbacks in future. It also safeguards the reputation of strong monetary policy of the Estonian state, and reliability in the eyes of foreign investors will increase. One component of a business environment that stimulates growth is a moderate tax burden, which will have the effect of leaving enough funds at the disposal of private investors. A moderate **tax burden requires the government sector's revenue and expenses to be kept in balance** in the medium-long and long term.

Just like other EU member states, Estonia must take into account in carrying out its budgetary policy the fact that it is part of a common economic and monetary union and must fulfil its obligations (those stemming from the treaty establishing the European Union and the Stability and Growth Pact, processes stemming from the European Semester). For Estonia, it is important that measures be followed which help member states decisively put in order their budgets along with establishing a new and more stringent regime, reducing public sector debt and thereby raising the reliability of the entire euro zone in the aftermath of the crisis. The crisis showed that the euro area must have a safety net for supporting countries in difficulty,

and thus Estonia must make its contribution in solidarity with other euro area members both into the current European Financial Stability Facility and the European Stability Mechanism.

Estonian government sector budget has had structural surplus after crisis since 2009, which is in compliance with the set target. In 2012, the budgetary position deteriorated nominally a bit (-0.3%), particularly due to single factors, but the structural position was, as before, with a surplus of 1%. The aim of the government is the government sector's budgetary position with a surplus structurally in 2013 and nominally in 2014 and thereafter, considering the cycles of the economy, the preparation of the government sector's budgets with a surplus in the medium and long term perspective.

15. Improving the sustainability of social expenditure in the public sector in the face of decreasing working-age population and ageing population, ensuring effective health care and well-oriented and effective social policy (including the necessary support services).

In Estonia as in other developed countries, one challenge is **ensuring long-term financial capability for public social spending**. This is complicated by demographic changes, i.e. the decrease in the working-age population and the increase in the number of pension-age people.

In order to develop continuous financing of the social insurance system, it will be analysed further how to develop possible changes in health insurance, pension insurance and unemployment insurance, for instance the new scheme for incapacity for work. Healthy life expectancy and longer participation in the labour market (and healthy lifestyle) have a positive impact on the social insurance system. Therefore, continuous financing must also be ensured in the future by **strengthening the principles of the functioning health insurance system**.

To keep otherwise capable and well-trained people active on the labour market and aim resources at providing other social services, it would be expedient to review the **special pensions system and to reduce or abolish the old-age pensions under favourable conditions**. Likewise, the general pension age reform decided in late 2009 is under implementation[8]. Moving to a more need-based system also means abolishing distinctions between public and private sector employees. To do so, in April 2013 **a new Public Service Act which establishes similar grounds with the Employment Contracts Act** entered into force.

16. Continuing a budgetary policy that supports competitiveness (high level of productive expenses, increased flexibility, controlling public sector wage costs, planning the local government revenue base in state budget strategy).

Compared to other European Union countries, Estonia has **a high level of productive expenditures (investments, education costs, R&D costs, etc.)**. This should be maintained and if necessary increased in government sector budgets as these expenditures create a new foundation for economic growth and greater tax revenue. In compiling the budget, the ratios of productive expenses are monitored, such as the percentage of investments or education expenditures, and the establishing of ceilings on operating expenses will be considered. These objectives will be considered in the negotiations for the next EU financial framework (2014-

[8] This is a reform of balancing impact on social costs in a longer term, the pension age will rise by three months every year starting in 2017, reaching 65 years of age in 2026.

2020), taking thereby into account a more flexible mutual connection between measures, **the impact of EU co-financing on fixed costs**, and in preparation for exiting the support system.

At the same time, a lower percentage of fixed expenses and revenue-dependent expenses in the government sector budget allows a more flexible response to changes in the economy and society and also makes it possible to ensure need-based financing of sectoral policies. In the medium-long term, Estonia's competitiveness will benefit if **the growth of the public sector's expenses on wages and salaries is in proportion to the growth in productivity**. If salaries grow faster than productivity, the competitiveness of enterprises will be weakened in the longer term, and domestic inflation pressures will be increased, and this will in turn mean greater pressure on government sector expenditures through transfers related to wages and salaries.

17. Continuing the gradual reduction of taxes on labour and profits and to increase taxes on consumption and use of natural resources.

Greater taxation of wages and profit will limit economic growth more than the equivalent amount of taxation on consumption and use of the environment. For this reason, we must continue at every level **a shift in taxation from workforce (direct taxes) to taxation of consumption and resource use (indirect taxes).** Besides geographic location and reputation of the state, taxation is one of the most important factors that helps draw foreign direct investment to the country. Favourable taxes are the linchpin for positive investment decisions in cases where other prerequisites (basic infrastructure, education, security) are ensured to a degree comparable with other countries.

Efforts must be continued to harmonize indirect **taxes that have a significant impact on the functioning of the EU internal market and to abolish exceptions in the EU**. Direct taxes and tax systems (rates) reflect every country's specific and unique social and political choices, and thus the principle of freedom of choice of member states must remain in place in this regard.

Estonia must become the 28th tax system to support the uniform consolidated income tax base on condition that it will simplify the functioning of the entrepreneurial environment and that it is possible to maintain the current Estonian corporate income tax principles. Simplicity, transparency, low administrative costs are of key importance for Estonia in maintaining and increasing the competitiveness of the entrepreneurial environment.

18. Avoiding macroeconomic imbalances

The challenges that lie ahead for economic policy in coming years are related to reinforcing the institutional framework to allow **imbalances to be better controlled and to avoid the potential for recurrence of imbalances**. It will also be important to ensure the better functioning of the business environment and the labour market, so as to increase long-term economic growth prospects.

The impact of the factors that caused overheating of the economy in 2005-2007 has now abated and economic growth is influenced by other factors (foreign demand and increase in competitiveness), therefore the occurrence of a similar boom in internal demand is unlikely in

the near future. Yet we must still be ready to mitigate such economic imbalances should they arise.

In this connection many reforms have been initiated and directions have been taken that this strategy has also documented, such as **public service reform** and **centralization of support services of the state** for making the public sector more efficient and keeping labour costs comparable with the overall salary and productivity growth.