

Improving Access to Green Funding in CEE and Ukraine

Country fiche on Access to Green Funding

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Overview of financing in the following areas:

1. Financing for Waste Management

Focus: This subsection will cover waste management dimensions

1.1. Background situation

Between 2008 and 2010 the budget of the Ministry of Environment has been steadily increasing (45.6% between 2009 and 2010 – EUR 194.7 million). In 2011, the expenditure on **environmental protection** amounts to 3,922.9 million EEK (EUR 251 million), i.e. 4.2% of the expenditure. The expenditure will increase by 528.7 million EEK (EUR 33.8 million) due to the increased use of foreign aid for the investments in local governments' water economy and waste handling.ⁱ

In 2009 about half of the environmental budget was channeled into water and waste investments. The budget for rural development is EUR 925 million out of which EUR 714 million comes from the European Agricultural Fund for Rural Development (EAFRD). It has to be kept in mind that investments into renewable energy and sustainable transport come from the budget of the Ministry of Economic Affairs and Communications. For the 2007-2013 programming period only 22.7% of the transport investments went into rail compared to some 65% going into road. Relatively small funds are going into coastal protection (EUR 900,000); development of environmental technologies (EUR 14.9%) and in neutralisation of semicoke and ash heaps (EUR 40 million)ⁱⁱ.

The Waste Act sets the policy framework for the Estonian waste management policy. It lays down principles, sets targets and requires the closing down of old landfills. A new amendment to the act was adopted in 2011. Waste prevention and reduction of generation are the focus of future efforts as well as continuation of diversion of waste from landfilling. Other important strategic and policy documents include the Packaging Act (2004), the Biodegradable Waste Management Plan 2008–2013; and the National Waste Management Plan for 2014-2020 (in process of elaboration). Since 2008 waste generation has been decreasing slowly due to the economic crisis and the implementation of EU waste acquis. However, the overall level per capita is high because of the oil-shale based energy production which accounts for around 80% of the total waste while municipal waste accounts for less than 3%. On the other hand, the level of municipal solid waste per capita (346 kg in 2009) is much lower than the EU-27 average (512 kg.). Waste recovery has increased year on year, from 23% in 2003 to 28% in 2009, and is expected to rise to at least 50% by 2013. Up to 80% of glass, paper, plastic and metal waste is recycled in Estonia and the country has the highest rate of the recycling of WEEE. Estonia has met the 2010 waste diversion target. The ban on landfilling unsorted municipal waste and the increase in landfill tax (to reach EUR 30/tonne in 2015) has been a major driver for diversion of waste from landfills. However, an ever increasing landfill tax has also stimulated alternative waste treatment methods and there is a correlation between the increase of the tax and the decrease of landfilled waste. Some 75% of the landfill tax revenues (from municipal waste) are returned

to the municipalities while the rest is transferred to the Environment Investment Centre Fund (EIC). Landfill tax from industrial waste which are more important go to the EIC. Current landfill gate-fees do not cover all closing up of old landfills which will be subsidized during the coming years with around EUR 38 million. Producer responsibility schemes are available for packaging, WEEE, ELV, Batteries and tyres (from 2013).

Environmentally Harmful Subsidies

Waste

The IEEP study on phasing out of EHS identifies three EHS in the waste sector in Estonia:

- Waste incineration charge (foregone government revenue);
- Energy from waste incineration and landfill gas.

1.2. Strategies and national financial mechanisms regarding waste management

Estonia had a transitional arrangement with intermediate targets for the implementation of the **Landfill Directive** until **16 July 2009**. The derogation concerned the landfilling of ash from oil shale power plants. The target of the Landfill Directive related to biodegradable municipal waste was achieved in 2009 already for the 2013 target.ⁱⁱⁱ The conditions of the Accession Treaty terms, as published in Official Journal of the European Union,^{iv} were re-negotiated in 2008-2009 with the European Commission. In this context, the 'hydro-transport' of the oil-shale ash was accepted, as the landfill body itself (more than 20 m thick 'ash-stone layer'), will guarantee groundwater protection requirements.

The Waste Act (2004) sets the basis of Estonian waste management policy. It provides requirements for preventing waste generation and associated health and environmental hazards. It prescribes the organisation of waste management with the objective of reducing waste quantities and hazards. It also stipulates the closure and conditioning of all landfills not in compliance with the EU Waste Directive by July 2013.

In early 2007, there were amendments to the **Waste Act (2004)** suspending the county level waste management planning. It was a move aimed at giving more responsibilities to the municipalities as well as to stimulate municipalities to pool their resources together and to strengthen their human and financial capacities for better waste management activities.

In July 2011, the Government approved the **Waste Act** - in fact, being an amendment to the 2004 Waste Act, with the amendment package transposing the WFD 2008/98/EU.^v Its main objective is to more efficiently prevent and reduce the generation of waste. It prescribes waste treatment preferences according to the waste hierarchy and follows the principle of life cycle assessment. Attention will be directed at prevention and reduction of generation of waste. Landfilling remains the most undesirable form of waste treatment.

The Packaging Act (2004) established the basis for a nationwide system for the collection and recovery of packaging waste.^{vi} Under the Waste Act, the organisation of recycling and

implementation of the ‘producer’s responsibility’ principle in the field of collection and treatment of WEEE, end-of-life vehicles and tyres are regulated.

The National Waste Management Plan 2008–2013 was developed to reduce the amount of landfilled waste including biodegradable waste, and to increase the share of recovered and recycled waste. First of all, the plan addresses the issue of infrastructure for bio-waste management, where in absence of better composting technologies, such as closed composting systems, windrow composting was considered one option. Several composting facilities have been build in the last few years, whose capacity today exceeds the separately collected bio-waste amounts – this means, that there are free capacities available to expand source separation. Simultaneously, major investments (ca 130 million EUR, without any public nor EU funds or support) have been made to MBT and incineration facilities, which in 2013 allows to treat nearly 100% of mixed municipal waste and to minimize the landfilling of the biodegradable municipal waste.^{vii} In 2005 some 320,000 tons of Biodegradable municipal waste was generated and some 82% out of it were landfilled. The aims of reduction of landfilling BMW are as follows: 2010 – 20,000 tonnes (8 % from landfilled 2005); 2013 – 100,000 tonnes (38 % from landfilled 2005); 2020 – 158,000 tonnes (61 % from landfilled 2005).^{viii} In June 2012, the Minister of the Environment Keit Pentus submitted a proposal for the National Waste Management Plan for 2014-2020 to the Government to be drafted in 2013. The focus of the new plan will shift from decrease of waste disposal and recycling of waste to decrease of waste generation.

1.3. Public financing schemes and sources for supporting and waste management development

Economic

In Estonia, the increasing landfill tax has contributed to diverting a number of previously landfilled waste streams into recovery. This could be said of sewage sludge, construction and demolition waste, garden and parks green waste, wood and timber waste as sawdust, etc.^{ix} The known level of the landfill tax – ca 30 EUR/tonne up to 2015 – was one of the most important arguments triggering the large investments into MBT and incineration facilities. Landfilling of the non-hazardous waste will be minimized already in 2013 and a further increase in the landfill tax level is considered not give comparable environmental benefits, as the landfill diversion will be achieved

Landfill tax

Landfill tax in Estonia was introduced in the first half of 1990s and is a function of the type of waste and the location of the sites. The landfill tax covers the industrial waste disposal as well.^x

Table 1: The Estonia tax rates for the main waste types in EUR per ton waste by 2010^{xi}

Pollutant charge rates for waste disposal	EUR per 1 ton of waste
Municipal waste	12
Waste deposited in landfills for inert waste	12

Pollutant charge rates for waste disposal	EUR per 1 ton of waste
Waste from building materials and construction demolition waste containing asbestos	0.64
Mining waste from oil shale, including waste from mineral dressing, discharged into open landfills	0.7
Waste which contains wood preservatives, inorganic pesticides, asbestos, arsenic or lead, except for the waste specified in point 4 above, coal and oil shale tar and products thereof, as well as bituminous compounds containing such materials and waste pitch from the processing of oil shale	63
Waste which contains mercury, cadmium, cyanides, polychlorinated biphenyls or polychlorinated terphenyls (PCBs, PCTs) or organic pesticides	625
Oil shale fly ash and oil shale bottom ash and cement clinker dust	1.2
Oil shale semi-coke	1.2

- The typical landfill gate fee is 52 EUR/tonne.^{xii}
- The tax on non-hazardous waste, incl. inert waste and municipal waste will rise by 20 % per year to EUR 30/t until 2015. The landfills amount will be less than 50,000 tonnes/y in 2013.^{xiii}

Table 2: Landfill tax rates for 2011 to 2015^{xiv}

Waste type	Fee, EUR/tonne				
	01.01. 2011	01.01. 2012	01.01. 2013	01.01. 2014	01.01. 2015
All non-haz waste (incl municipal waste), and inert waste, permitted to landfill in non-haz landfills	14,38	17,25	20,77	24,86	29,84
asbestos containing waste	0,63	0,63	0,63	0,63	0,63
the enrichment residou of the oild-shale	0,76	0,76	0,76	0,76	0,76
fungicides, pesticides, tyar-like waste, Arsenic and lead conmtaining waste	62,56	62,56	62,56	62,56	62,56
Oil-shale ash and cement dust	1,44	1,72	2,07	2,48	2,98
Oil-shale semi-coke (pyrolize waste)	1,44	1,72	2,07	2,48	2,98

Note: The fees based on the hazardous components, are applied, if the classification of the waste, as haz-W, is based on the content of those substancies.

- The low tax on asbestos containing waste is due to the particular situation for asbestos – there is no alternative to landfilling it, and it was regarded as better to collect and landfill it on proper sites than to encourage illegal landfilling.
- The tax on oil-shale ash and oil-shale semicoke will rise by 20 % p.a. to EUR 3 per ton until 2015. The landfilled amount is about 6-7 million tonnes per year
- Oil-shale enrichment residues have an amount of about 6 million tones landfilled per year. There is no increase planned for this tax.

The Environmental Board (Agency) under the Ministry of the Environment controls the calculation document prior to payment and collects the tax. The landfill owners or operators have to submit quarterly reports on landfilling and pay the tax. However, a new e-platform is in development at the moment. This will be a dedicated web page of the Tax and Customs Board which the landfill operators shall themselves declare the tax and provide all relevant additional information.

The revenue from landfill tax has been constantly growing between 1994 and 2008 (more than EUR 26 million) mainly because of significant increase of the rate of the tax. But as the major part of the revenues has been linked to the oil-shale industry, the changes in energy sector have influenced also the actual amounts landfilled. For instance, when operation of the Ignalina nuclear power plant in Lithuania was stopped in 2009, Estonia exported much more electricity – and hence landfilled also associated oil-shale sector waste.^{xv} In 2009 and 2010 it fell to levels slightly less than EUR 15 million.

Some 75 % of the revenues collected by the Environmental Board are returned to the waste generating municipalities – applying only for municipal waste, which both in terms of 'total waste landfilled' and in terms of 'total landfill tax paid' makes up for a rather small part.^{xvi} According to the law, these funds should be used for waste management. However, due to lack of control mechanisms revenues often simply feed into the general budget. From 2011, the Tax and Customs Board took over the role of the Environmental Board for collection and distribution of revenues from landfill tax.

The remaining part of the tax-revenue is transferred to the **Environment Investment Centre Fund (EIC)**. The EIC is considered part of the state budget, but its funds are earmarked for environmental projects (not only for the waste sector). Yearly, around EUR 7 million in landfill tax revenues are returned to waste sector projects via the Environmental Investment Fund (the main national supporter for waste management projects). This fund builds new landfills and closes old ones (from 200 landfills to 5 non-hazardous landfills in 2009).

Closing of old landfills cannot be solely financed through current landfill gate-fees and will therefore be subsidized in the near future with around EUR 38 million. Current landfill gate fees do not have any relation to the landfills, which were closed for landfilling before July 2009, but the closure works are going on clearly on those 'old landfills'. The landfills currently undergoing closing procedures did not collect the needed closure fund during their lifetime – the new landfills should have such a fund.^{xvii} It has to be noted that, starting from 2009, at the same time the rate is three times as high for landfills that do not comply with the Landfill Directive. Since 2009, a factor of 3 is used for the calculation of the landfill tax, which the landfill operator has to pay to the State – i.e., the initial landfill tax rate was multiplied by 3 on old landfills, which did not correspond to the requirements. However, the 'factor 3' did not affect the actual gate fees,

which are the landfill operators' own prices plus the landfill tax – the gate fees were mainly constant over this period (2007-2009).^{xviii} The landfill tax has an impact on the electricity prices as waste from oil-shale contributes to a whole 75% of all landfill tax revenues. Additionally, some 90% of Estonian electricity production comes from oil-shale.^{xix}

Pay-as-you-throw (PAYT) covers almost the whole territory of Estonia. It is volume and frequency-based. These schemes are very efficient to reduce waste generation and increase the participation in prevention and separate collection of waste. The limited producer responsibility covering a few waste streams covered is not able to cover the full costs of separate collection and recycling of the main waste streams.^{xx} The feed-in tariff for electricity from peat and waste is 52 EUR/MWh.^{xxi}

1.4. The role of international financing of waste management

Environmental Investment centre

- Grants for wastewater treatment and ensuring the conformity of drinking water with the requirements. Projects with a cost of up to 958,675 EUR are financed from the **Environmental Programme (EP)** and bigger projects are financed from the Cohesion Fund.
- The Environmental Programme supports the development of the hazardous waste collection system to a level which covers all the counties and local governments; development of the sorted waste collection and recovery infrastructure; and introduction of modern waste treatment principles. Cohesion Fund - closure of ordinary waste landfills, the expansion of waste treatment centres, the recovery of waste, the closure of oil shale industry landfills and waste depositories and the renewal of the ash removal system

2. Financing for Air quality and Climate change

2.1. National mechanisms and strategies for air quality development in the country

In the **National Greenhouse Gas Abatement Programme 2003-2012** reaching the Kyoto target has been set as a main objective. The long-term objective of the national programme is a reduction of GHG emissions by 21 % by 2010 compared with the 1999 emission level.

In September 2011, the Government approved the **Ambient Air Protection Act**, which transposes EU directive on ambient air quality and cleaner air for Europe (Directive 2008/50/EC).^{xxii} According to Keit Pentus, minister of the environment, in general Estonian towns with the exception of central Tallinn do not have problems with air quality.

2.2.Public finance sources for supporting air quality

Construction of different air treatment devices can be expensive. So far, significant results have only been achieved in the field of dust separation. The uptake of renewable energy will have a positive influence on air quality as well

Due to change in legislation, there have been significant changes in environment charge rates in 2010-2015. The air pollution charge rates for CO, NO_x, VOC, heavy metals and mercaptans are increasing 5-10% annually; SO₂ and particulate matter charge rates increase 30%; CO₂ emission charges rate does not change.^{xxiii}

Estonian national allocation plan for the allocation of greenhouse gas emission allowances been approved by the EU. The Estonian allocation plan is worth 13.3 million European Union Allowances (EUAs) per year and is expected to be allocated to 47 companies. Successful CO₂ quota transactions brought to the government as additional EUR 360 million.^{xxiv}

2.3.Positive examples of public-private partnerships in the air sector

In July 2012, the government signed the contract with **Mitsubishi Corporation** and prolonged the support scheme of electric cars until the end of year 2014. Plug-in hybrid electric vehicles were added to the selection of models. The electrical mobility programme (ELMO) makes it possible for both private and public institutions to acquire an electric car with a state grant provided by KredEx, in the amount of up to 50% of the price of the car. The maximum grant amount per one fully electric car remains at EUR 18,000, in addition to which KredEx compensates for the cost of home charger up to EUR 1,000.

2.4.Examples of good practices on the above points

In 2012, the government prolonged the support scheme of electric cars until the end of year 2014. Plug-in hybrid electric vehicles were added to the selection of models.

3. Financing of eco-innovation in SMEs

3.1.Background history

SMEs in Estonia represent 99.7% of the number of enterprises, 77.8% of the employment and 76.2% of the value added.^{xxv}

According to the eco-innovation index, overall eco-innovation performance of Estonia (80%) is below the EU average (100%). The concept of eco-innovation is not a top policy agenda, nor is it a popular topic amongst members of the public and the business community. As a result, there are no public policy measures in place to specifically support eco-innovation.^{xxvi}

Estonia has however improved its position in terms of eco-innovation by continuous investments. From a laggard position it became an innovation follower by 2011.^{xxvii} Nevertheless, Estonia is behind the rest of Europe in terms of offering green products and embarking on a resource efficient way. One reason is that there have been little public support measures for this purpose. Some 48% of the companies offering green products generate more than half of their business through them which speaks of their successful approach and innovative products.^{xxviii}

In 2008 some 72% of Estonian SMEs have taken resource-efficiency measures while the EU average was 93%. In 2012, only 2% of SMEs have benefitted from public support measures for their resource-efficiency actions while the EU average is 9%. In the same year, 21% of SMEs in Estonia offer green products or services compared to 26% EU average. In 2012, 6% of SMEs in Estonia have benefitted from public support measures for the production of green products compared to 8% EU average.

3.2. National mechanisms and strategies for supporting eco-innovations in the country

The national strategy “**Estonia 2020**” (Competitiveness Plan) was approved in 2011. Environmental concerns and sustainable consumption were the main driving forces for existing policies and also some policies under preparation.^{xxix}

As mentioned above, the eco-innovation inputs in Estonia are lower than the EU average. There are many reasons behind Estonia’s low eco-innovation input. With a fairly low overall share of R&D personnel and researchers, at 0.81% in 2011, Estonia is lower than the EU-27 average (1.08%).^{xxx} Although Estonia has significantly strengthened investments into R&D and higher education, the results of these investments will only be seen after many years. It is worth mentioning that Estonia has taken the objective of reaching the level of R&D investments to 3% of GDP by 2020.^{xxxi}

The main drivers for eco-innovation actions are progress in knowledge-based society, targeted funds and pursuit of profits while the main barriers are limited progress in eco-awareness, limited political interest and commitment and relatively low spending on eco-innovation.^{xxxii}

In addition to ICT and biotechnology, material technologies are defined as one of the key technologies in the R&DI strategy “**Knowledge-based Estonia 2007-2013**”. Most R&D concentrate in Tallinn University of Technology (51%) and Tartu University (45%). The total budget of the relevant projects was 23 million EUR in 2009. The material technology is also one of the most analysed and researched technologies after biotechnology (total turnover in 2009 is EUR 24 million) and condensed matter physics (total turnover in 2009 is EUR 24 million).^{xxxiii}

The Knowledge-based Strategy 2007-2013 assumes that the creation of new innovative enterprises would lead to growth. It also emphasizes the synergies between companies and research and development institutions, transfer of knowhow and technology; technological renewal of enterprises and growth of their development capacity and productivity.^{xxxiv}

Estonian Enterpriser Policy (2007-2013) is the development plan for entrepreneurs. It is supplemented by a three-year year implementation plan. The development plan is linked to other government strategies such as “Estonian National Budget Strategy 2007-2010”, “National Strategic Reference Framework 2007-2013”. The Enterprise Policy focuses on four main fields of activity: developing knowledge and skills, supporting investments, supporting internationalisation and developing the legal environment.^{xxxv}

In August 2012 a draft of the Industrial Pollution Act was presented by the Ministry of Environment. It concerns big industrial companies. The goal is to better control emissions into air, water and soil, waste handling, efficient use of energy and accident prevention. There are 256 such major producers in Estonia

3.3.National instruments for supporting businesses in carrying out eco-innovation projects

The Estonian Energy Technologies Programme (adopted in 2008) establishes a framework for supporting the development of oil shale technologies and new energy technologies that are based mainly on renewable energy sources.^{xxxvi}

Competence Centres are long-term R&D collaborations in strategic areas between academia, industry (including SMEs) and the public sector. The aim is to bridge the gap between scientific and economic innovation. Activities of centres include: pooling of knowledge, creation of new knowledge by performing different types of research, training and dissemination of knowledge and networking. The budget of the programme in the EU budget period 2007-2013 is EUR 62.9 million. The following competence centres exist: Competence Centre of Food and Fermentation Technologies; Bio-Competence Centre of Healthy Dairy Products; Estonian Nanotechnology Competence Centre; Competence Centre for Cancer Research; Software Technology and Applications Competence Centre (STACC); Competence Centre on Reproductive Medicine and Biology (CCRMB); Innovative Manufacturing Engineering Systems Competence Centre (IMECC)

Enterprise Estonia is offering different support possibilities and solutions to help a starting entrepreneur kick-start their business. In supporting starting businesses, the following objectives have been set by Enterprise Estonia: more starting entrepreneurs, a better survival rate for businesses and a larger number of fast-growing companies.^{xxxvii}

The Ministry of Economic Affairs and Communications together with Enterprise Estonia and Norwegian Partners have developed the **Green Industry Innovation Programme**, the aim of which is to support projects with an environmental, economic and societal focus. An Estonian Electro Mobility Programme (nation-wide coverage by end 2012) and a programme for the renovation of public buildings sponsored by revenues from CO2 emission trading.^{xxxviii}

Through the **Estonian Development Fund and Environmental Investment Centre**, the Estonian government supports investments into new innovative environmental technologies and R&D using national and EU funds. Privately funded R&D activities are modest in the promotion of research in environment, energy and other priority areas.^{xxxix}

3.4. The role of international financing for eco-innovation

In September 2012, **the European Investment Fund (EIF)**, Estonia, Latvia and Lithuania created the Baltic Innovation Fund (BIF) with a goal to increase equity investments into the enterprises of the area. The total volume of the fund is 100 million EUR, The EIF is investing 40 million EUR alongside investments of 20 million EUR each from the national agencies of Estonia (KredEx), Latvia (LGA) and Lithuania (Invega). Money will be invested into private equity and venture capital funds over the next four years to further developing equity investment into SMEs. ⁱ

In 2008, SMEs' share in the total value of awarded public contracts was 59% in Estonia while the EU average it was 38%. For 2011 the EU Regional Funds for entrepreneurship and SMEs were 5.7% of total allocation while the EU average was – 9.5%. For 2011 the EU funds for business creation and development were 7.4% of EAFRD total allocation in Estonia while the EU average was 2.1%.

According to a survey in 2011, access to public financial support including guarantees deteriorated according to 12% of respondents in Estonia as compared to 22% of EU average. Willingness of banks to provide a loan guarantees deteriorated according to 17% of respondents in Estonia compared to the EU average of 27%. These figures show a better situation in terms of access to finance in Estonia compared to the average situation in the EU.

3.5. The role of private financing in supporting the development of eco-innovation in SMEs

Access to finance has changed significantly. A new technology loan was launched by Kredex to cover up to 40% of the self-financing (max. 2 million EUR) requested by a bank. The aim is to improve the productivity of enterprises and boost exports.

KredEx also issues grants for energy audits, building expert evaluations and building designs of reconstruction work based on energy audit drafted from January 1st, 2007. ^{xii}

ⁱ Ministry of Finance, Brief overview of the state budget for 2011, <http://www.fin.ee/budgeting> , accessed 6 February, 2013.

ⁱⁱ Keskkonnaministerium, Estonian national allocation plan for the allocation of GHG emission allowances approved by the EU, <http://www.envir.ee/1181791>, accessed 6 February, 2013

ⁱⁱⁱ European Commission, Country factsheet Estonia, 2011, http://ec.europa.eu/environment/waste/framework/pdf/EE%20factsheet_FINAL.pdf, accessed 6 February, 2013.

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^v Information based on feedback from national reviewer Peeter Eek, 15 April, 2013.

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- ^{xxi} Ibid.
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^{xxxiii} EEA, 2011. Survey of Resource Efficiency Policies in EEA Members and Cooperating Countries. Country profile: Estonia. European Environment Agency, <http://www.eea.europa.eu/themes/economy/resource-efficiency/resource-efficiency-policies-country-profiles>

^{xxxiv} Ministry of Economic Affairs and Communications, Estonian Enterprise Policy 2007-2013, http://www.mkm.ee/failid/Estonian_Enterprise_Policy_2007_2013.pdf, accessed 6 February, 2013.

^{xxxv} Ibid.

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