



Project EIE-06-189 ClearSupport
Clearinghouse Facilitation

Paving Way for Better Energy Building Performance
in EU Less Developed Regions

Report on Regulatory Framework For Energy Performance of Building Measures In Target Regions

WP5 Regulatory Framework for Energy Performance of Buildings Measures

D 5.1-5.2:
Report on Regulatory Framework for
Energy Performance of Buildings Measures in the Target Regions

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1 Summary of Findings

1.1 Introduction to the Report

WP5 is dedicated to analyses of regulatory barriers for energy related building renovations and to provide input to national, regional and local authorities on how to facilitate Clearinghouse operations and ensure its sound operation. The given objectives are:

Objectives:

- ❑ Analysis and recommendations of regulatory & legislative framework as well as of ownership structures to facilitate sound clearinghouse operations in targeted regions.
- ❑ Analysis and recommendations on improved framework for local industries, cross-border technology transfer, employment effects and other socio-economic aspects of a local Clearinghouse in the field of RUE in buildings
- ❑ Extraction of the replication value of performed activities of relevance for other EU less developed regions

Amongst others, the scope of work encompasses examination of these issues:

- The legislative framework, including recommending appropriate adjustments
- Implications of building ownership structures for the EC Clearinghouse process
- Examining the aspects of local industrial capacity

The study covers the Project Service Facility/PSF regions in Crete – Region of Greece, Czech Republic, Pomorania – Region of Poland, Lithuania and Latvia as well as Slovenia.

The overall study is led by Energy Consulting Network in coordination with Danish Energy Authority and the country/regional studies are managed by the respective partners of the ClearSupport project TEI, SEVEN, BAPE, AF Terma, IPE and ZRMK.

The study has been organised in the way that the country/regional partners have analysed the situation based on a template prepared by Energy Consulting Network and Danish Energy Authority (Please find template in Annex 2), and subsequently the key findings of each country/regional study and their cross-cutting aspects been summarised (following session).

It should be noted that the present study on the regulatory framework go together with a strategy study of the ClearSupport project aiming at recommending ways for acceleration of energy performance of building measures in the CEEC and South Europe. Both these studies will be further elaborated until the Autumn 2009.

1.2 Key Findings of the country/regional studies

The tables below present main findings of the regulatory framework for energy performance of building measures in the PSF regions Crete – Region of Greece, Czech Republic, Pomorania – Region of Poland, Lithuania and Latvia as well as Slovenia.

Crete – Region of Greece	
General situation	Though efforts are ongoing for wide spread awareness of the energy saving potential in buildings, there is yet a lot to be done. The present period with economical crisis means increased political attention, especially with regard to helping the building industry and associated job creation. Further adoption of the EPBD implies that ministries and institutes allocate resources. The capital market for the sector is not well developed, but it is expected that this will improve in conjunction with the prioritisation of the area.
Residential building sector	A main barrier for energy refurbishment exists in the area of block buildings. A decision of the general assembly of the owners is required and subsequently the owners should finance themselves the construction works. In practice this means that for block of flats with 15-30 owners, it is complicated to obtain finance for energy renovation.
Public building sector	The main source of financing for municipal project is the structural funds. The municipal administration would normally not have the capacity themselves to manage the refurbishment, but will cooperate with an external consultant. There is a need for more training, advice and undertaking of audits.
Regulatory aspects, incl. implication of EPBD	The EPBD has not yet been adopted in Greece. A public consultation document about some regulations of this law was taken place until the start of 2009. Following this it is expected that the final regulation will be put in place without further delay.
Local industry aspects	Due to the financial crisis the construction industry in the region of Crete has lowered by 40-50%, which has led to a severe unemployment problem in the workforce of the building sector. Following this the Government is taking various initiatives to promote employment and the EU structural funds of the period 2007-2013 is envisaged to be a main source for spurring investments. This includes specific support to enhance the use of photo-voltaics in buildings.

Recommendation on the adjustment in legislation and regulatory framework

The following recommendations are made:

1. Acceleration of changing the regulatory framework related with Energy inspection of buildings. Allowance to the provisional energy inspectors to start Energy inspection of the buildings.
2. Financial assistance through the EU structural funds 2007-2013, to the municipalities to start energy renovation of their buildings.
3. Adjustments of the legal framework to allow third party financing in energy renovation of the buildings.
4. Allowance, in the region of Crete, of installing small PV systems in private houses (like in other parts of Greece).
5. Facilitation in the case of blocks of flats, of the legal procedure to start energy renovation of the buildings. Facilitation of financing such projects.

Slovenia	
General situation	<p>There is generally good attention on the need for energy efficiency in the building sector. Thus the political support is rather strong and well addressed in the national strategic process, though the realisation of the plans is sometimes hindered by budgetary constraints.</p> <p>Lots of information activities and support is available (also through the national energy advisory network) regarding the choice and proper sequencing of implementation of RUE in building measures.</p>
Residential building sector	<p>There is a high general level of awareness present among homeowners, which is clearly expressed through interest in RUE and RES topics etc. Individual construction is oriented more and more towards low-energy standards and even passive standards, and majority of people have at least some basic knowledge about RUE and RES.</p> <p>The privatisation of the "socially owned" flats in Slovenia has been very extensive and today the majority of flats (around 90%) are individually owned. A barrier to refurbishment of multi-apartment buildings is that it requires approval of more than 50%, or sometimes even 75% of the owners, though on the positive side for each building has to be put in place a so-called reserve fund set that can facilitate investments.</p>
Public building sector	<p>The level of activity in the municipality varies. Some municipalities have rather good own expertise on building rehabilitation, whilst others need trainings or advise in this field. According to the Law they should all have a local energy concept established, which is an opportunity to define relevant strategies in the field of buildings. When public (state- or municipality-owned) buildings are concerned, more emphasis on energy efficiency will come soon from the national Action plan for green public procurement (GPP), and from the corresponding governmental ordinance.</p>
Regulatory aspects, incl. implication of EPBD	<p>Since the 1990s, a number of regulatory initiatives, including financing instruments, have been taken in Slovenia to promote energy performance measures.</p> <p>The second EPBD-related set of measures and corresponding regulations will be put into force from July 2009 and imply a strict regime for further promotion of building renovations. The Ministry is preparing an intensive EPBD information campaign in the media (newspapers, magazines, radio and TV spots, technical seminars), which is to be accompanied by training of independent experts for energy performance and putting in place the various systems and instruments connected to the EPBD.</p>
Local industry aspects	<p>Slovenia has a relatively well developed building industry, an industry that is welcoming the adoption of EPBD and its prospects for increased sales. The financial crisis has affected the building sector, although it was feared that the effects would be worse. Some plans for new works have been postponed, but at the same time the situation tends to favor investors in the sense that building companies are now more frequently prepared to offer lower prices to sign a contract.</p>

Recommendation on the adjustment in legislation and regulatory framework

As Slovenia is trying to follow the EPBD-related necessary adjustments of national legislation and technical regulation (with now extremely rigorous energy indicators criteria) on a regular basis no major new or different strategy orientations really need to be suggested. One important remark would be that the actual practical implementation needs to be faster (for example, energy certificate scheme will be operational only after the preparatory activities are completed - including training and certification of independent experts, foreseen only in autumn 2010). The key to success is of course an efficient control over actual fulfillment of legal technical obligations, which expands also to the public sector through compulsory realization of green procurement practices. Also, looking at the financial aspects, eco-loans and subsidies offered by the national Eco-Fund and linked to these activities are well established and widely appreciated. Maybe an investigation of possible mechanisms to involve other players (commercial banks, for example) and to connect them to aforementioned activities would be useful, but this is strongly related to their internal policies and outside the regulatory framework itself.

Czech Republic	
General situation	The Czech authorities have for quite long time promoted energy savings in buildings and also there is generally good awareness in the sector and the broad public.
Residential building sector	<p>The ownership of the residential dwellings is a mix of housing cooperatives, privately owned and municipal owned flats as well as family houses and private rental. The decision-making in relation to multi-family buildings is based on democratic principles and there is seen no need for revision of regulation in the field.</p> <p>There is good availability of information via booklets, public media etc., but in terms of managing energy efficiency measures and their investments the essential issue is that building managers are able to persuade tenants on the building rehabilitation needs.</p>
Public building sector	<p>Due to mandatory energy auditing (since 2004) of public buildings with total annual energy consumption over 1500 GJ, municipalities are aware of the energy saving potential of their buildings.</p> <p>A key source of financing for renovation of public buildings is Structural Funds/Operational Environmental Program. Since April 2009, another program shall be started based on a green investment scheme (CO₂ credits).</p>
Regulatory aspects, incl. implication of EPBD	<p>A key feature in the current legislation is to promote energy auditing of buildings. This system exists since 2001 (first law), audits became mandatory for almost all public buildings since 2004. Energy audit brings recommended measurement to decrease energy performance of building with respect to economical parameters, though designed measurements are not mandatory for building owners. This is accompanied by financing schemes for both residential and public buildings.</p> <p>Since 1st January 2009, the certification of new buildings or major renovation has become compulsory. First experience is that there is insufficient cooperation of building designers and certificate assessors and advertising campaigns to prevent bottlenecks to emerge.</p>
Local industry aspects	See enclosed list of local industries in the building sector
Recommendation on the adjustment in legislation and regulatory framework	N/A

Pomorania – Region of Poland

General situation	<p>General social consciousness about energy saving needs is quite common. The campaign “Friendly House” has been running for several years in Poland, but it is still necessary to inform and educate administrators of both private and public buildings. E.g. there is need for more detailed information and awareness rising campaigns.</p> <p>Usually energy prices based on coal are too low to make building renovation feasible; and therefore it is necessary to provide special incentives to make investments happen.</p>
Residential building sector	<p>The Polish thermo-modernization programme that has promoted and has co-financed building renovations since the 1990’s has been a key factor to refurbishment of the residential sector, especially multi-family buildings.</p> <p>With regard to investments it is in some cases easier to take a decision by private houses owners (association)(HOA’s) as the group of people is usually smaller than in the case of housing co-operation. On the other hand small HOAs may lack own financing sources.</p>
Public building sector	<p>Usually the municipalities will not have sufficient competences to undertake building refurbishment themselves and need to engage experts. The main motivation factor is reduced energy costs, but also improved image as good administrators/managers.</p> <p>Main sources of financing are the Thermomodernization programme and Structural Funds (Regional and National Operational Programmes)</p>
Regulatory aspects, incl. implication of EPBD	<p>The Thermomodernization programme and later Structural Funds have been helpful to realise the saving potentials. Additional regulatory measures and especially financing mechanisms are to be put in place, as the demand for financial support is extensive.</p> <p>Following EPBD, an energy performance certificates system has existed in Poland since 1 January 2009. However, the set-up implies no database for certificates issued and certificates verification. Further a standard for heat demand calculation is missing too and there is currently lack of supporting tools like computer programmes.</p>
Local industry aspects	<p>Polish economy, including building sector, faces drawbacks due to the worldwide recession. Thus constructional production resulting from new dwellings rising has diminished by 4,6% in first quarter of 2009 in comparison to the same period in previous year. Also unemployment is growing and in Pomerania the number of unemployed rose in March 2009 by 4% in comparison to February 2009. Following this, there is high need for initiatives to stimulate activities in the building industry.</p>
Recommendation on the adjustment in legislation and regulatory framework	<p>Recent period has implied quite many changes in the Polish regulatory framework: Building Law, Recommendations for building construction setting, law regulating certification system. All these were studied by the Pomeranian PSF hosted by BAPE</p>

	<p>carefully. The most problematic is regulation on building certificates. BAPE participated actively in preparation of the so called "open letter" to the Prime Minister, which was also signed by BAPE - pointing all mistakes in the procedures and discrepancies . What is more, in our opinion the methodology is also not precise enough what may create some discussion on the calculation results among the parties interested in building certificate. The letter was published in daily newspaper "Gazeta Wyborcza" on January 20th, 2009.</p>
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Lithuania	
General situation	The building sector is well addressed in the regulatory set-up. A key regulatory factor concerns the national Apartment Building Modernization Programme that supports specific investments as well as act as a good service for project owners. However, the ongoing financial crisis has caused severe drawbacks and there is a big need for stimulation of the sector.
Residential building sector	<p>Apartment owners, in general, are aware on energy saving possibilities. The Housing and Urban Development Agency play a key role in giving advice on energy efficiency measures to apartment owners, incl. how to apply for financing of measures.</p> <p>Decision on rehabilitation of Apartment building is made by majority (50% +1 vote) of owners; e.g. owners who voted against refurbishment must obey the majority opinion.</p>
Public building sector	<p>Municipalities are normally aware on energy saving measures, but more detailed information would be advantageous. In case of building rehabilitation, municipalities will usually subcontract consultants, for supervision of construction works they usually have a professional.</p> <p>In terms of applying for Structural Funds the Municipalities can get assistance from the Lithuanian Business Support Agency/LBSA, a public institution put in place to ensure adequate handling of the funds.</p>
Regulatory aspects, incl. implication of EPBD	<p>A main regulatory instrument for rehabilitation of apartment buildings is the Apartment Building Modernization Programme that started in 2004. It has by 3rd April 2009 led to the implementation of 307 projects, following submission of 720 applications.</p> <p>An ongoing discussion is introducing special "CO2 fee" for apartments owners is under consideration. The idea is that in old apartment building energy consumption for space heating exceeds certain average value the owners should pay some extra fee if they do not rehabilitate the building.</p> <p>Due to the adoption of the EPBD there is obligatory certification of <i>new erected</i> buildings since 01/01/2007, while for the rest of buildings since 01/01/2009.</p>
Local industry aspects	<p>The potential of construction as well as building material manufacturing companies is rather significant, but nowadays erection of new buildings both public and living is nearly completely stopped in Lithuania. Unemployment among construction companies grows day by day.</p> <p>Building industries such as windows, construction and isolating materials and others are operated on 50% – 75% of capacity and it is expected further decrease. If large-scale rehabilitation of buildings process will not start soon many of construction companies and manufacturers will expect the bankruptcy.</p>

<p>Recommendation on the adjustment in legislation and regulatory framework</p>	<p>PSF Recommendations on the adjustment in legislation and regulatory framework were discussed after presentation of „Revolving funds as financing possibilities for energy saving project in building sector” in Ministry of Finance on 07'th April, 2009.</p> <p>Main point was feasibility of simplification of specific legal procedures accompanying preparing of documentation for building retrofitting: according to our legislation detailed area plan should be made-up in every case of building retrofitting. But the all bureaucracy, including required approximations in all institutions is very complicated and takes more than a year. Respectively, a lot of potential project owners fear such documentation stage and simplification of mentioned procedure could significantly rise number of private project owners wishing to refurbish their house.</p>
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Latvia	
General situation	<p>There is a national programme for promotion of renovations of multifamily buildings as well as initiatives for facilitating investments. However, the financial crisis causes big problems in terms of slowing down investments and bringing about unemployment.</p> <p>The number of awareness campaigns on saving possibilities in buildings grew significantly in the last two years. Nevertheless, it is necessary to continue and to enlarge this process.</p>
Residential building sector	<p>The majority of residential buildings are today privately owned (87%). This is considered an advantage in terms of promoting investments in the sector.</p>
Public building sector	<p>Some municipalities in Latvia have access to expertise on building rehabilitation, especially in bigger municipalities where there are Local Energy Agencies like Riga and Jelgava, and there are Energy Managers in some of the small municipalities.</p>
Regulatory aspects, incl. implication of EPBD	<p>The 'State Support program for promotion of multifamily apartments buildings renovation for years 2007-2010' is the main support documents for rehabilitations of apartment blocks.</p> <p>New regulation has been adopted to favour the financing of Energy Efficiency Projects in the Housing Sector. Project applicants faced a problem to reach at least 75% apartment owners agreement to take loan for whole renovation of dwelling (required by the bank in case there is no any additional security provided). From this year it is enough to have 50% of apartment owner's agreement to take loan in Latvian Banks.</p>
Local industry aspects	<p>The building industry in Latvia is severely hit by the ongoing international finance crisis and one negative effect is high increase of unemployment in the sector.</p>
Recommendation on the adjustment in legislation and regulatory framework	<p>It would be necessary to strengthen the legal framework for promotion of public-private partnership projects in the rehabilitation of housing stock in Latvia, There are several good examples but due to still weak overall legal framework as well as limited availability of good quality standard documents – like Energy performance contract etc. that would have been proved with longer term successful experience this process is still very slow. It would have been a very cost-efficient way for using Green investment schemes resources in the housing stock retrofitting process in the long term perspective.</p>

	<p>In order to increase quality of technical works carried out – especially related to insulation of external walls it would be necessary to consider implementation of ETAG 004 GUIDELINE FOR EUROPEAN TECHNICAL APPROVAL of EXTERNAL THERMAL INSULATION COMPOSITE SYSTEMS WITH RENDERING (ETICS) as compulsory requirement - as it is done in Lithuania. Otherwise there is a very high risk on quality of insulation works carried out.</p> <p>There are several new initiatives targeted on promotion of green procurement procedures as well as on implementation of low-energy or zero-energy consumption principles in housing renovation projects. These are used as principles that give additional advantage point in the process of project application ranking applying for Green investment schemes financing.</p>
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1.3 Conclusion, including Cross-cutting Findings

At this stage the following conclusion and cross-cutting findings can be made on the study of the framework for EP building renovations in Crete – Region of Greece, Czech Republic, Pomorania – Region of Poland, Lithuania and Latvia (all PSF regions) as well as Slovenia:

- ❑ Residential sector: In the case of all the studied New Member States the respective authorities have actively supported energy savings. This has specially been done in form of programmes for measures in multi-family buildings, including financing instruments. Despite these efforts, there is still a long way to harvest the energy saving potentials and the financial crisis has led to slowdowns of investments, especially in the Baltic region. In terms of multi-family buildings the issue of ownership structure is another factor to hinder large scale implementation. In general the decision-making on investments require a majority of votes and the design of support programme is to put in place sufficient incentives. In Crete, there is a general positive development driven by Structural Funds and the adoption of the EPBD, though the financial crisis also here has caused drawbacks. In terms of block buildings in the residential sector the issue of ownership is a key barrier for investments.
- ❑ Public sector: Municipalities in both NMS and Crete are increasingly aware on energy saving measures, but in general need more detailed information and usually in the case of building rehabilitation municipalities will hire experts. Though in some of the countries/regions there is access to advice (and the PSFs of ClearSupport have also helped on this), better assistance is required especially in terms of helping with preparing investments. The Structural Funds provide a key source of financing in all the countries, but also national programmes like the thermo-renovation programme in Poland is an important factor to promote investments and in the Czech Republic the development has been spurred by an energy audit scheme.
- ❑ Regulatory framework: As stated above all the studied New Member States do actively support energy savings, typically organised in national programmes. On one hand this means that the countries/regions have built up competences, including how to manage investment programmes. On the other, the energy saving potential is much higher than the existing framework & incentives can cope with. The implementation of the EPBD will usually add on to such existing programmes and investment schemes by providing a stricter regime on how to regulate the sector. The studied countries/regions are in an early phase of EPBD, and struggling with getting the necessary instruments and supporting tools in place, so it is too early to draw conclusions on its impact, except that is likely to bring about a clearer and more homogeneous framework. In Crete the development has mainly gained speed the recent years as the building sector takes advantage of Structural Funds and the EPBD.
- ❑ Building industry: The building industry in the studied NMS and Crete represent a considerable potential that will be spurred by the European 20-20-20 goal. The situation is momentary troublesome due to the financial crisis, and there is great need for stimuli.

2 Country Report Greece – Region of Crete

2.1 Present situation

Apartments

Type of ownership PRIVATE

1: Apartments private Enter %, numbers and m2 distributes	191.670 (There are not public apartments in Crete) , There are not available data on m2
Average heat/hot water consumption if available kWh/year/m ²	84 KWH/year/m2
2. Does ownership have negative consequences on building rehabilitation? (too rigid majority rules, difficulties in providing collateral for finance)	YES , MAINLY IN PROVIDING COLLATERAL FOR FINANCE
3. Do you see needs for revision of existing regulation in this field?	YES
4. Are apartment owners in general aware of the saving possibilities? Is there a need for information and awareness rising?	NO , THERE IS NEED FOR MORE INFORMATION
5. Do apartment owners have access to advice on effects on building rehabilitation or is there a need for initiatives in this field.	NO THEY DO NOT HAVE ACCESS AND THERE IS A NEED FOR INITIATIVES

Municipal buildings

Types of municipal buildings: (incl. regional ones)

1. Administrative buildings and others m2 Schools/kindergartens m2 Hospitals m2	Administrative 246 Schools 1342 Hospitals 132
2. Are there supporting or restricting regulations for Rehabilitation of municipal buildings?	THERE IS NO RESTRICTION BUT THERE IS SOME SUPPORT
3. What are the incentives for municipalities for rehabilitation of own buildings (does the Municipal gets the benefit of energy savings)? Or others. (Ministries???)	THEY GET SOME STATE SUBSIDIES FROM EU STRUCTURAL FUNDS

4. Are municipalities in general aware on saving possibilities or is more information necessary	MORE INFORMATION IS NEEDED
5. Do municipalities have expertise or access to expertise on building rehabilitation? Is there a need for initiatives in this field? Campaigns/training/advise/audits	THEY DO NOT HAVE EXPERTISE BUT THEY CAN COOPERATE WITH AN EXTERNAL CONSULTANT. THERE IS NEED FOR MORE TRAINING ,ADVISE AND AUDITS
6. Average annual heat/hot water consumption if available kWh/year/m ² Administrative buildings and others, kWh/m ² Schools/kindergartens, kWh/m ² Hospitals, kWh/m ²	Administrative 1 KWH/year/m2 Schools 1,9 KWH/year/m2 Hospitals 12,3 KWH/year/m2

Regulatory initiatives for building rehabilitation

1. Are there support schemes for rehabilitations of apartment blocks (grants, advice, special loans etc?) Please specify¹, Please enter updates to the information given earlier.

2. Are there support schemes for rehabilitation of single/double family houses (grants, advice, special loans etc?)	NO
3. Are there support schemes for rehabilitation of buildings in service sector/industries?	YES MAINLY GRANTS THROUGH EU STRUCTURAL FUNDS
4. Are there support schemes or initiatives for rehabilitation of municipal/state buildings?	YES
5. Are there a need for introduction of supportive regulations or support for rehabilitation projects (grants, advice, special finance etc?) Please specify	MAINLY ADVISE AND FOR FAMILY HOUSES SOME FINANCIAL SUPPORT
6. Does energy prices have enough incitement for building rehabilitation or are they too low. Please comment	THEY ARE RATHER LOW
7. Are structural funds available for building rehabilitation? If yes, budget and details	THERE ARE AVAILABLE ONLY FOR MUNICIPAL BUILDINGS AND FOR INDUSTRIAL AND HOTEL

¹ Note that WP 3, Tool 1 report also has some information on this.

	BUILDINGS.
8. Shall building performance legislation be further strengthen to initiate necessary rehabilitations (by this we mean if current regulation on energy inspection/audit for larger buildings should be improved)	NO
9. Are new (innovative) financial measures used for building rehabilitation? (ESCOs, service contracting, 3 rd party financing etc.??)	NO
10. Are there supportive actions in building rehabilitation by institutes, agencies etc? In addition to PSF?	NO
11. Are there a need for further awareness raising or initiatives?	YES

EPBD update

Please mention planned initiatives related to the EPDB

The last report was published on May 2009. The Greek law 3661/2008 [published 19-5-2008] which is mentioned in this report , concerns the application of EPBD in Greece. Since then, a public consultation document about some regulations of this law was available until 20-1-2009. Since then the final regulations about the application of the law 3661/2008 are expected , and probably will not delay.

Please mention suggested improvements to the directive

Not decided yet

Please mention suggested improvements to the directive

There are no suggestions at the moment.

Please mention problems in implementing the directive

They will be visible after the application of this directive.

2.2 Description of the legislation in the Building Sector

General situation for energy performance in buildings in PSF country

The citizens are not yet well aware about the application of EPBD in Greece. There are not at the moment many well qualified professionalists and companies to support the application of this directive. The ministries and various Institutes have some resources to cope with the necessary work but a lot of things have to be done more. It is necessary to train and to certify the energy inspectors and this is going to take some time. Various seminars all over Greece are organized by the Technical chamber of Greece representing over 100.000 engineers in the country. There is political support at the moment because of the economical crisis, since it is accepted that this directive will facilitate the recovery of the building industry which is suffering at the moment in Greece.

The capital market is not well developed with absence of ESCOs, but it is expected that the financial Institutions will support various enterprises in this field.

Ownership structure

The owners structure affects significantly the energy renovation of buildings mainly in apartment blocs. Since they belong to many owners in the case that any type of renovation is needed, a decision of the general assembly of the owners is required. When the decision for the renovation is positive, the owners should finance themselves the construction works and it is difficult to obtain a bank loan since collateral is required. However if one owner does not want to obtain a bank loan with collateral related to his flat (property), nobody can force him to do so. Therefore in practice in the case of a bloc of flats with 15-30 owners, it is almost impossible to obtain bank finance for energy renovation since the collateral problem.

Local industries and employment

To day with the current financial crisis the construction industry in the region of Crete has lowered by 40-50%. [The market for a second house-flat in Crete for northern Europeans has collapsed] .Therefore there is a severe unemployment problem in the workforce of the building sector. The central government is starting to offer various financial incentives to energy rehabilitation of buildings to promote employment in this sector and to increase the relative investments . They try to utilize the EU structural funds of the period 2007-2013 to support the building industry. Some other regulatory policies related with the use of photovoltaics in buildings are also introduced but their results are not yet visible.

Regulatory framework and finance and incentives

The EU directive 32/2006 which introduces the ESCOs is not yet valid in Greece.

The existing public programmes for the energy rehabilitation of buildings include mainly subsidies from the EU structural funds which are offered a) To Municipalities with population over 10.000 inhabitants and b) to various companies (Industry ,Hotels and Commerce) . Public programmes for advise and audits are not

available. Also there are not subsidies for flats or houses of non commercial character. There are also available bank loans which are offered with difficulties due to the current financial crisis. Special revolving funds are not available currently in Greece.

EU regulation

Since the EPBD has not been applied yet in Greece, it is difficult to comment on this issue.

2.3 Anchoring of WP5 results with local stakeholders

The WP5 study will be probably be interested to various local stakeholders-beneficiaries like

- a) The regional programmers of EU structural funds.
- b) The PSF Steering group
- c) The local bankers
- d) The Municipalities and other local authorities.

In view of the above, how do you envisage the dialogue with the local stakeholders on the WP5 study to proceed in the best way and what does this imply for the focus of WP5 work and its priorities

Due to the fact that the EPBD is not applied yet in Greece, it is not clear how the dialogue with the local stakeholders will influence the focus of WP5.

3 Country Report Slovenia

3.1 Present situation

Apartments

Type of ownership (e.g. private public)

<p>1: Apartments (private/public) Enter %, numbers and m2 distributes</p>	<p>Private: 92,4%, 718.964, 54.923.270m² Public: 7,6%, 58.808, 3.107.917m² (2002)</p>
<p>Average heat/hot water consumption if available kWh/year/m²</p>	<p>Average heat consumption: 138 kWh/y/m² Average hot water consumption: 32 kWh/y/m²</p>
<p>2. Does ownership have negative consequences on building rehabilitation? (too rigid majority rules, difficulties in providing collateral for finance)</p>	<p>Yes, still too often, and usually connected with financial situation of the (private) owners. In general, In multi-apartment buildings an approval of more than 50% of the ownership holders is needed according to the legislation (Housing Act) to undertake any major works. Until June 2008 according to this Act a decision for improvements (i.e. measures which do not count in as “regular maintenance”) had to be unanimous. Sometimes it was unclear whether some investment (i.e. additional thermal insulation on the façade) counted in as maintenance or as an improvement. Current version of the Act gives more emphasis on “energy renovation”, but still states that a majority of 75% of votes is needed for all activities, which are subject to building permit. In practice this can represent problems where energy renovation is accompanied by reconstruction works in need of a building permit (75% rule).</p> <p>The most common “non-technical” obstacle is lack of financial sources, even though each building has to have a so-called reserve fund set up (monthly payments; amounts are prescribed according to the age and condition of a</p>

	<p>building). In case of poorly maintained buildings this is of course not enough, i.e. it can take years to economize adequate sources.</p> <p>In the capital city (Ljubljana) the municipality offers co-funding for renovation of historic and architecturally important buildings. The national Eco-fund offers favourable loans for renovation, but combined with criteria for thermal and energy characteristics noticeably stricter than in the regulations, which again increases costs.</p>
<p>3. Do you see needs for revision of existing regulation in this field?</p>	<p>Yes. RUE and RES rules for building renovation are undoubtedly meaningful and necessary, only that in the current revision of RUE regulations (officially valid from July 2009) they could represent an obstacle, not an impulse to the owners (technical feasibility of complying with the criteria).</p>
<p>4. Are apartment owners in general aware of the saving possibilities? Is there a need for information and awareness rising?</p>	<p>In multi-apartment buildings owners are not always aware of all saving possibilities – technical advice is very welcome and should be organized via the appointed building management companies. This is important to make a step forward from stating general facts (“adding insulation saves money”) to presenting concrete figures for a particular building: investment costs versus reduced operational costs and long-term savings. There is always a need for continuous information and awareness raising activities.</p>
<p>5. Do apartment owners have access to advice on effects on building rehabilitation or is there a need for initiatives in this field.</p>	<p>Yes, the owners have access to advice on the impact of the construction and rehabilitation of buildings (independent advisory offices ENSVET, press, Internet sources, expert companies, etc.) but there is also a need for further initiatives in this field.</p>

Municipal buildings

Types of municipal buildings: (incl. regional ones)

<p>1. Administrative buildings and others m2 Schools/kindergartens m2 Hospitals m2</p>	<p>Administrative buildings: Pcs.: 2780 / 1.885.584 m²; Educational / cultural buildings: Pcs.: 2987 / 2.812.709 m²; Hospitals: Pcs.: 1258 / 1.438.576 m²; (WP3)</p>
<p>2. Are there supporting or restricting regulations for Rehabilitation of municipal buildings?</p>	<p>There are no such special regulations for municipal buildings (except for example the ones about energy certificate display according to EPBD).</p>
<p>3. What are the incentives for municipalities for rehabilitation of own buildings (does the Municipal gets the benefit of energy savings)? Or others. (Ministries???)</p>	<p>Serving as best practice examples to homeowners should be one of the major roles, combined of course with efforts for reducing the budget expense for operational costs. The latter is also the most obvious benefit.</p>
<p>4. Are municipalities in general aware on sawing possibilities or is more information necessary</p>	<p>It depends very much on the municipality – general level of socio-economical development, local investment priorities, structure and education of municipal staff. More concrete information is necessary in many cases, but also more concrete technical analyses from this field.</p>
<p>5. Do municipalities have expertise or access to expertise on building rehabilitation? Is there a need for initiatives in this field? Campaigns/training/advise/audits</p>	<p>Municipalities have some expertise or access to expertise on building rehabilitation but they also need trainings or advise in this field. According to the Law they should all have a local energy concept established, which is an opportunity to define relevant strategies also in the field of buildings.</p>
<p>6. Average annual heat/hot water consumption if available kWh/year/m² Administrative buildings and others, kWh/m² Schools/kindergartens, kWh/m² Hospitals, kWh/m²</p>	<p>Administrative buildings: 125 kWh/y/m²; Educational / cultural buildings: 260 kWh/y/m²; Hospitals: 420 kWh/y/m²; (WP3)</p>

Regulatory initiatives for building rehabilitation

<p>1. Are there support schemes for rehabilitations of apartment blocks (grants, advice, special loans etc?) Please specify, please note that WP 3, Tool 1 report also have some information on this. Please enter updates to the information given earlier.</p>	<p>Subsidies for energy efficient retrofit of existent multiapartment buildings (of at least 9 apartments) - Ministry of Environment and Spatial Planning:</p> <p>(A) Installation of equipment for distribution and clearing of costs for heating;</p> <p>(B) installation of thermostat valves AND hydraulic balancing of the heating system;</p> <p>(C) thermal insulation of existent buildings (glazing, windows, opaque building envelope)</p>
<p>2. Are there support schemes for rehabilitation of single/double family houses (grants, advice, special loans etc?)</p>	<p>Eco-loans for citizens for implementation of RES and RUE measures (Eco Fund, public fund):</p> <p>A) Systems and devices for heating and DHW,</p> <p>(B) RES (solar systems, heat pumps, biomass, RES electricity),</p> <p>(C) EE retrofit (windows, doors, thermal insulation of building envelope), (D) Low energy houses,</p> <p>(E) Purchase of EE household appliances,</p> <p>(F) Purchase of environment-friendly vehicles,</p> <p>(G) Draining and purification of waste water,</p> <p>(H) Removal and disposal of hazardous construction materials,</p> <p>(I) Efficient water supply,</p> <p>(J) Tap water supply outside public grid systems</p> <p>Subsidies for use of renewable energy sources in households (Ministry of Environment and Spatial Planning):</p> <p>A) Solar collector systems for DHW,</p> <p>(B) heat pumps,</p> <p>(C) PV systems for electricity generation,</p> <p>(D) biomass boilers</p>

<p>3. Are there support schemes for rehabilitation of buildings in service sector/industries?</p>	<p>Eco-loans for legal entities and self-employed people for implementation of RES and RUE measures (Eco Fund, public fund):</p> <p>1) Installation of modern systems for heating and DHW, installation of RES systems, co-generation, other RUE measures in production and office buildings;</p> <p>purchase of electric or hybrid vehicles;</p> <p>construction of low-energy buildings</p> <p>(2) Reduction of other emissions to the air, conservation of water, waste management (contemporary methods of collection, sorting, recycling, and reuse)</p> <p>(3) Waste water draining, renovation of water conduits to reduce water losses</p>
<p>4. Are there support schemes or initiatives for rehabilitation of municipal/state buildings?</p>	<p>No special schemes – depends on (local) budget and priorities, and on strategic plans.</p>
<p>5. Are there a need for introduction of supportive regulations or support for rehabilitation projects (grants, advice, special finance etc?) Please specify</p>	<p>The mechanisms and instruments stated above are well recognized and accepted. Usually the problem lies in less available funds than needed. On the part of the banks there is unfortunately less support for rehabilitation projects than expected.</p>
<p>6. Does energy prices have enough incitement for building rehabilitation or are they too low. Please comment</p>	<p>Not yet. Even though at the moment the economical situation (as almost in all countries) is not very sound, the energy prices do not represent a motive for serious consideration of building rehabilitation.</p>
<p>7. Are structural funds available for building rehabilitation? If yes, budget and details</p>	<p>In Slovenia the principle strategic referential framework is comprised in the National development programme 2007-2013. It consists of three operational programmes, one of them being the Operational programme for development of environmental and traffic infrastructure. It lists several development priorities, including “Sustainable energy”, with a subtask “Sustainable renovation and construction of buildings”. About 160 million EUR of EU funds are allocated for this priority,</p>

	coming from the EU Cohesion fund. Structural funds will be used for two other operational programmes: for development of human resources, and for development of regional development potentials. Sadly, at the moment no major project is in progress under the Operational programme for development of environmental and traffic infrastructure. It is feared that the available resources will even not be adequately used until 2013.
8. Shall building performance legislation be further strengthen to initiate necessary rehabilitations (by this we mean if current regulation on energy inspection/audit for larger buildings should be improved)	The latest revision (September 2008, in force from July 2009) introduced quite strict criteria and conditions, which are assumed to be satisfactory at least for the next short- or mid-term period.
9. Are new (innovative) financial measures used for building rehabilitation? (ESCOs, service contracting, 3 rd party financing etc.??)	At the moment only seldom. These measures need wider recognition, which on the other hand requires competent partners on both sides.
10. Are there supportive actions in building rehabilitation by institutes, agencies etc? In addition to PSF?	For single family buildings and households: national energy advisory network (ENSVET). Otherwise: several expert companies are known as competent to co-operate in such projects, usually directly with the owners or designers. BCEI ZRMK offers support to the national Eco-fund in planning and realization of their loans.
11. Are there a need for further awareness raising or initiatives?	As it has proven so far, these activities are valuable and shall be performed continuously.

EPBD update

Please mention planned initiatives related to the EPDB

No vital updates or changes apart of course from the ones included in the recast of the EPBD.

Please mention suggested improvements to the directive

Slovenia is slightly behindhand with the introduction of building certification scheme and training and licensing of experts (although all drafts have been ready for some months now

Please mention problems in implementing the directive

– see below).

Issues are of internal nature – different points of view on calculation methodology and certificate types among some experts and ministry staff, which caused the delay mentioned above. This is expected to be overcome very soon.

3.2 Description of the legislation in the Building Sector

Current EPBD national regulations (published in Official gazette in September 2008, put into force from July 2009) represent a strict enough instrument to be used in construction, and in building renovation as well.

Minimum requirements are valid for all new buildings as well as for major renovation (when the value of renovation works exceeds 25% of the building value without the land). The requirements are valid for all sizes of buildings under major renovation (no 1000 m² rule is used). In case of a renovation that exceeds 40% of the envelope, the placement of insulation is necessary according to the U_{max} rule. In case of window replacement, prescribed window technology must be installed and, if the heating system is renovated, hydraulic balance as well as local and central regulation are both required.

Considering this, no changes are needed at the moment. In fact, it is to be seen how these requirements are going to be realized in practice, especially regarding technical feasibility and probably to some extent also the financial capabilities of homeowners. Of course, an efficient control of consideration of regulatory demands will have to be established before issuing permit for use. On the other hand, some worries exist that the calculation methodology of the new RUE regulation is not completely clear, and that some requirements are not logical or unambiguous. Again, practice will point to strong and weak points, and changes will have to be made promptly, if necessary.

On the other hand, and as explained above (see 2.1), a further need for harmonisation of national legislation is visible, especially perhaps between the Housing Act and Building Act.

When public (state- or municipality-owned) buildings are concerned, more emphasis on energy efficiency will come soon from the national Action plan for green public procurement (GPP), and from the corresponding governmental ordinance.

General situation for energy performance in buildings in PSF country

No regulation that might directly obstruct refurbishment (or, energy renovation) of buildings exists in Slovenia. Energy efficient measures are requested in case of major renovation (see above, Introduction). The only exceptions are listed buildings – heritage buildings, which are for obvious reasons excluded from thermal insulation requirements. But, upgrading of technical systems and some other building components is possible here, concerning each individual case.

The political support to energy efficiency in the building sector is strong, visible also from various national strategic documents and action plans (on RUE, reduction of GHG, etc.). Sometimes there comes to a gap between strategic directions and practical realization (connected to momentary priorities and budgetary issues). Although the national budget for RUE and RES is formally increasing, there are signs that at least some of the funds are often being shifted to other sectors, or at least not used for declared activities. Some analyses say that available structural funds are also not made good use of.

The core staff at responsible ministries is highly competent (and active for example in the Concerted Action EPBD projects), but lacks the authority to not only draft and suggest, but also to bring final decisions. So, governmental officials often have to adjust to (and depend on) the dynamics and priorities of the policy and strategies, which have often non-technical roots.

There is a high general level of awareness present among homeowners, which is clearly expressed through interest in RUE and RES topics, high interest in energy advisory services, and demand for energy efficient products and services. Individual construction is oriented more and more towards low-energy standards and even passive standards, and majority of people have at least some basic knowledge about RUE and RES. The new RUE regulations in fact brought a certain level of low-energy standard to all building construction and renovation works.

All these topics are also quite strongly represented in press, and for example at various national construction and housing fairs.

In single-family housing RUE measures are undertaken very individually, depending of available financial sources. Government subsidies and loans represent an important source of co-financing. Owners' organisations (each building has to have such a body) are also entitled to loans and to certain other targeted financial sources of co-financing (for example, in the capital: programme Ljubljana – My City; co-financing of façade refurbishment from 33% to 66%). Lots of information activities and support is available (also through the national energy advisory network) regarding the choice and proper sequencing of implementation of RUE measures.

The national (technical) market has dramatically improved in the last decade or two. It is in many segments very strong, technically advanced, and comparable to other EU markets. It can offer most of the products and services needed for a successful implementation of RUE and RES measures in buildings.

Ownership structure

As shown above, Slovenia, has experienced major changes in the field of housing during the last years. The privatisation of the “socially owned” flats in Slovenia has been very extensive. The ratio between individually owned flats and flats for rent prior to the privatisation of flats was reflected in the ratio 66.9% to 33.1%, and after the privatisation was completed, in the ratio 88% to 12% in favour of individually owned flats (please note: statistical data vary here slightly; there is also an indication of about 92% of privately owned units).

Even though a minority cannot block a project in a multi-apartment building, it can represent a problem of financial coverage of the costs, especially if there are not enough resources already available from the building's reserve fund.

The structure of the ownership sometimes makes it difficult for municipalities or local housing funds to realize renovation projects, if their ownership share in a certain building (in need for renovation) does not exceed the regulatory minimum to confirm decisions.

As mentioned above, in an individual building the owners as a whole (a “community of building owners”) are also entitled to loans and to certain other targeted financial sources of co-financing. As the financial arrangements are then done individually, the security of loans is also a matter of individual agreement between the bank and the owner.

So far only in very rare cases appointed building management companies made a loan agreement with the community of building owners to finance a certain investment. In other words, the building manager pays for products or services, and this expense is re-paid by owners by monthly instalments. Obviously, the

building management companies usually have low or no interest in such projects, because this requires enough own spare resources and the security of the arrangement is uncertain.

Local industries and employment

National manufacturers and branches of foreign producers welcomed new EPBD regulations in Slovenia, as of course this means an opportunity for higher sales figures due to the obligatory higher level of thermal insulation, installation of complementary and advanced mechanical systems, and similar.

The construction industry at the moment shows no severe difficulties to adapt to new requirements, which in some cases request accommodated or new procedures. Especially the thermal insulation and brick industry follow the development of regulations with much attention, and are prepared to offer new or upgraded products. This is true also for some other segments, for example producers of windows and glazing. In this context it must be stated that several national manufacturers of thermal insulation and construction materials are partially or completely owned by respected companies from western EU countries.

The current economic situation has affected also the building sector, although it was feared that the effects would be worse. At the moment the construction dynamics shows a slight drawback, and some plans for new works are being postponed. Nevertheless, this situation is at least to some extent favourable to investors, as the building companies are now more frequently prepared to offer lower prices to sign a contract.

In the beginning of spring 2009 a new loan package, similar to the previous one, was launched by the national Eco-fund. It received an immediate positive feedback, which shows that at least in the private sector construction and energy renovation of buildings are still topic of high interest.

Regulatory framework and finance and incentives

Promotion of rehabilitation of buildings has a long history in Slovenia. Partly it is connected to introduction and upgrading of RUE regulations, for example EPBD-based legislation in the last few years.

First subsidy schemes were launched in the 1990s, progressing from more simple measures (thermal insulation of ceilings under unheated lofts, sealing of windows etc.) to complex ones (integral building renovation). The criteria always exceeded minimum requirements valid at a certain time to put additional stress on energy efficiency. Gradually, particular criteria from the subsidies were included in upgraded regulations, and the respective subsidies were successively cancelled.

A scheme of loans for different partial and complex RUE and RES measures in the building sector has been in operation for several years by the national Eco-fund. It is very popular among homeowners and the demand usually exceeds available funds. More details were presented in the WP3 report.

There is a long tradition of energy advisory services in Slovenia. In early 1990s a national network (ENSVET) was established, and now the advisory offices have a very good and uniform geographical coverage. These services are free of charge. Advisors are also active in promotion of RUE and RES through articles in magazines and newspaper, and through special local or national radio broadcasts. At all major fairs in

Slovenia there is always a special ENSVET stand present, where visitors can receive advice, and series of lectures are organized.

The Department for Energy and Efficiency and Renewable Energy at the Ministry of Environment and Spatial Planning is responsible for the implementation of EPBD in Slovenia. The Ministry has started the preparation of an intensive EPBD information campaign in the media (newspapers, magazines, radio and TV spots, technical seminars).

All major newspapers tend to dedicate at least part of their weekly supplements to RUE and RES topics, bringing information and best practice examples to a broad audience, and presenting respective construction and insulation materials, technical systems, and similar.

Seminars and workshops are also a frequent form of promotion of RUE and RES for building rehabilitation and construction. Many local/regional energy agencies organize them, usually in co-operation with municipalities and responsible ministry.

BCEI ZRMK has also a long and pioneering tradition of preparation of awareness actions, seminars, workshops, and writing corresponding articles in all major national publications. Many such activities were and are realized through various EU projects (SAVE, EIE, FP6, ...). The pilot building certification scheme was also prepared and launched by the Institute, and it received excellent feedback. The Institute also closely co-operates with the Government in the field of Green Public Procurement.

Third party financing, public private partnership, ESCO services and similar activities have not yet become a regular practice in Slovenia, although there were some projects realized in this way. Even though their features and benefits are not unknown, there seems to be some concern about logistical and organizational issues present. Governmental activities are now more oriented also to promotion of such programmes.

EU regulation

As BCEI ZRMK is directly involved in the Concerted Action EPBD II as a national partner (and took part also in CA EPBD I as appointed by the Ministry of Environment), the country report on the "buildingsplatform" website was also prepared by ZRMK, with some co-operation by the experts from the Ministry.

In this way the facts and also impressions are already included in the above mentioned text.

As already noted above, there has come to a delay in the start of the operation of the building certification scheme and some other procedures:

Although the necessary regulations were drafted in 2008, public consultation process is still on-going (or, the final decision has not yet been made by the Ministry) regarding the Regulation on training, licensing and register of independent experts for energy certification of buildings, and The regulation on training, licensing and register of independent experts for regular inspection of air-conditioning systems.

For this reason, there has come to an unexpected delay in training and licensing of independent experts..

The following activities thus still remain pending as urgent: training of independent experts for energy performance, certification and regular inspection of air-conditioning systems, establishment of the quality control system, development and final confirmation of the electronic database and software support,

establishment of the database of energy indicators, provision of feedback to energy indicators for ranking different building types (needed in case of complex and mixed use building), validation of calculation tools.

The minimum requirements (regulations from September 2008) differ slightly from the ones reported last year in WP3, and are now as follows:

- maximum allowed transmission heat losses, ventilation heat losses and/or power of devices for heating (transmission and ventilation) of the building;
- maximum allowed specific cooling load and/or power of cooling system;
- requirements for the obligatory installation of RES devices (min. 25% of the total power demand must be covered by the installation of RES systems).

The RES requirement is considered to be fulfilled either by the installation of solar collectors for hot water (min. 6 m²/residential unit), the installation of PV panels (min. 5 W/m² of building) or by the implementation of ice storage for cooling.

It is mandatory to prepare a “list of thermal characteristics of the building”, where the main system characteristics and simplified estimation of energy use is given.

Additional requirements refer to the maximum U values of the building envelope and windows (for walls 0,28 W/m²K, partitions between flats 0,90 W/m²K, flat roof 0,20 W/m²K, windows 1,3 W/m²K, doors 1,8 W/m²K) and to the air tightness of the envelope.

A considerable list of requirements refers to the energy efficiency characteristics of installations. Heat recovery in ventilation must be used due to strict requirements for maximum allowed ventilation heat losses. The minimum required rate of heat recovery in ventilation and/or AC systems is 65%. Individual electrical heaters for domestic hot water are not acceptable unless economically reasonable.

New buildings must use low temperature heating systems (max 55 °C), as well as condensing gas boilers. Heating and cooling consumption must be metered per individual unit. Additional requirements for cooling refer to obligatory shading of the envelope and to efficiency requirements for cooling systems.

Minimum requirements for lighting define the maximum allowed power of lighting devices per building category. Energy saving lamps are obligatory (only 20% of lighting may be covered by incandescent light bulbs).

The minimum requirement for primary energy is expressed in terms of the reference building approach.

There is also a minimum requirement for the final energy needed for space heating, for the preparation of domestic hot water, and for space cooling.

The energy indicators (power of HVAC and electrical devices, primary energy for heating, DHW, cooling, AC in kWh/a and in kWh/m³a - kWh/m²a for residential buildings, % of RES using installed power, CO₂/a and CO₂/m³a) have to be summarized in the “list of thermal characteristics of the building” for the design stage and for the final construction after the building is completed. Fulfillment of the minimum requirements will have to be demonstrated in the designs for the building permit, and after the construction of the building is completed, when applying for permit to use the building.

Minimum requirements are valid for all new buildings as well as for major renovation (when the value of renovation works exceeds 25% of the building value without the land). The requirements are valid for all sizes of buildings under major renovation (no 1000 m² rule is used).

In case of a renovation that exceeds 40% of the envelope, the placement of insulation is necessary according to the U_{\max} rule. In case of window replacement, prescribed window technology must be installed and, if the heating system is renovated, hydraulic balance as well as local and central regulation are both required.

4 Country Report Czech Republic

4.1 Present situation

Apartments

Type of ownership (e.g. private/public)

<p>1: Apartments (private/public) Enter %, numbers and m2 distributives</p>	<p>In total, number of occupied dwellings in the Czech Republic is about 3,83 mio. dwellings. Total floor area is 305 mio. m² - of which 140 mio.m² in multi-family houses, the rest family houses</p> <p><u>Ownership:</u></p> <p>Municipal 850 000 dwellings, which means 22%, floor area 68 mio. m²</p> <p>Housing cooperatives 650 000 dwellings, which means 17%, floor area 52 mio. m²</p> <p>Private owned flats 420 000 dwellings, which means 11%, floor area 33 mio. m²</p> <p>Family houses 1 560 000 dwellings, which means 41%, floor area 124 mio. m²</p> <p>Private rental (incl. retirement homes, social care houses etc.) 350 000 dwellings, which means 9%, floor area 28 mio. m²²</p>
<p>Average heat/hot water consumption if available kWh/year/m²</p>	<p>Expert based estimated values only, statistically relevant measurements are not available:</p> <p>Heating 80-100 kWh/m²,year</p> <p>Hot water 30-40 kWh/m²,year</p>
<p>2. Does ownership have negative consequences on building rehabilitation? (too rigid majority rules, difficulties in providing collateral for finance)</p>	<p>Building rehabilitation needs good informed managers who are able to persuade tenants to do that. Older people are accustomed to lower rents and don't realize needs for rehabilitation.</p>
<p>3. Do you see needs for revision of existing regulation in this field?</p>	<p>We do not see any needs for revision. Cooperatives and owners of flats create association which works on democratic principles.</p>
<p>4. Are apartment owners in general aware of the</p>	<p>The main tenants' arguments are disruption of</p>

² Data based on Public census (2001)

saving possibilities? Is there a need for information and awareness rising?	their live style for several days, mess, noise, energy or water difficulties and waste time being at home instead of working.
5. Do apartment owners have access to advice on effects on building rehabilitation or is there a need for initiatives in this field.	Who wants to be in many sources of information. There are a lot of booklets for managers of cooperatives, annual meetings of chiefs of cooperatives, in public media there are very often articles or TV and broadcasting programs.

Municipal buildings

Types of municipal buildings: (incl. regional ones)

1. Administrative buildings and others m ² Schools/kindergartens m ² Hospitals m ²	36,8 mio.m ² 14,4 mio.m ² 6,0 mio.m ² Expert calculated values, based on Statistical yearbook and other statistical data (Czech Statistical Office).
2. Are there supporting or restricting regulations for rehabilitation of municipal buildings?	Restricting regulations – in case of major renovation, the building has to reach low energy performance level (based on Energy Performance Certificates, based on EPBD).
3. What are the incentives for municipalities for rehabilitation of own buildings (does the municipal gets the benefit of energy savings)? Or others. (Ministries???)	Subsidy programs based on energy saving measures – biggest program for renovation of public buildings is Operational Environmental Program (funded by State Environmental Fund and Cohesion Fund). Since April 2009, another program shall be started (funded from AAU unit trade).
4. Are municipalities in general aware on saving possibilities or is more information necessary	Due to mandatory energy auditing (since 2004) of public buildings with total annual energy consumption over 1500 GJ, municipalities are aware of energy saving potential of their buildings.
5. Do municipalities have expertise or access to expertise on building rehabilitation? Is there a need for initiatives in this field?	In sense of previous paragraph, energy audits are very useful and helpful for municipalities.

Campaigns/training/advise/audits	
6. Average annual heat/hot water consumption if available kWh/year/m ² Administrative buildings and others, kWh/m ² Schools/kindergartens, kWh/m ² Hospitals, kWh/m ²	Expert based estimated values only, statistically relevant measurements are not available: Administrative buildings and others: Heating 120-140 kWh/m ² ,year Hot water 25-35 kWh/m ² ,year Schools/kindergartens: Heating 110-130 kWh/m ² ,year Hot water 20-35 kWh/m ² ,year Hospitals: Heating 180-200 kWh/m ² ,year Hot water 80-100 kWh/m ² ,year

Regulatory initiatives for building rehabilitation

1. Are there support schemes for rehabilitations of apartment blocks (grants, advice, special loans etc?) Please specify. Please enter updates to the information given earlier.

EFEKT Programme - Financial subsidies for implementation of energy savings equipments

FINESA - Financing of Energy Saving Applications

Program PANEL – financial subsidies for implementation of insulation at the residential buildings

Green Investment Scheme - financial subsidies for implementation of insulation and other energy savings measures at the residential buildings (*very new programme*)

2. Are there support schemes for rehabilitation of single/double family houses (grants, advice, special loans etc?)	Not now, since April 2009 should be started new program for support of renovation of family houses (see more in paragraph 7. part 3) of this table).
3. Are there support schemes for rehabilitation of buildings in service sector/industries?	Subsidy program - Operational Programme Enterprise and Innovations (OPEI), part “Eko Energie”, in period 2007-2013. Subsidy up to 60% of recognizable costs.
4. Are there support schemes or initiatives for	Energy auditing has been subsidized. Subsidy for

rehabilitation of municipal/state buildings?	rehabilitation can be reached especially from Operational Environmental Program (see more in paragraph 7. part 1) of this table).
5. Are there a need for introduction of supportive regulations or support for rehabilitation projects (grants, advice, special finance etc?) Please specify	Subsidy programs exist in almost all types of buildings and ownership. Huge administration can be demotivating. Regulations are set quite suitably, based on experience.
6. Does energy prices have enough incitement for building rehabilitation or are they too low. Please comment	Due to regular increasing of energy prices, they are high enough to motivate for energy efficient renovation.
7. Are structural funds available for building rehabilitation? If yes, budget and details	Yes, 1) Operational Environmental Program – only for public organizations, especially schools (maximum subsidy = 90% of recognizable costs = costs for energy-savings-related material and work); In 2 calls for this subsidy, about 6 billion CZK were used for. Funded by Cohesion Fund and State Environmental Fund. 2) Program Panel, which helps to modernize pre-cast concrete buildings. 3) Since April 2009, another program should be started (funded from AAU units trade, budget about 10-20 billion CZK for period 2009-2013). Subsidy will be used for building envelope renovation (incl. passive houses) and renewable sources (solar panels, biomass boilers). Target groups – owners of family- and multi-family houses (applicants - natural persons, building associations, municipalities).
8. Shall building performance legislation be further strengthen to initiate necessary rehabilitations (by this we mean if current regulation on energy inspection/audit for larger buildings should be improved)	Current legislation is based on energy auditing of buildings. This system exists since 2001 (first law), audits became mandatory for almost all public buildings since 2004. Energy audit brings recommended measurement to decrease energy performance of building with respect to economical parameters. Designed measurements are not mandatory for building owner.

9. Are new (innovative) financial measures used for building rehabilitation? (ESCOs, service contracting, 3 rd party financing etc.??)	In cases, where it is real, it is recommended. There is experience with such measures in the Czech Republic.
10. Are there supportive actions in building rehabilitation by institutes, agencies etc? In addition to PSF?	
11. Are there a need for further awareness raising or initiatives?	

EPBD update

Please check your country report on EU EPBD www: <http://www.buildingsplatform.eu>

Look for Country reports, December 2008 and please inform if any changes or developments related to implementation of the directive.

Please mention updates to latest report

Since 1st January 2009, the certification of new buildings or major renovation has become compulsory. First experience is that there is insufficient cooperation of building designers and certificate assessors. (Designers usually make final version of plans and then they ask for energy evaluation. The assessor sometimes detects thermally-underestimated construction.)

Advertising campaigns to prevent the problem are being supported.

Please mention planned initiatives related to the EPDB

Till the end of 2009 (estimated), new version of *Decree 148/2007 Coll. Energy Performance of Buildings* should be finished. National Advisory Team had been established and worked on it. The team consists of Ministries members, Association of Energy Auditors, Consultancy companies and Normalization and Standardization Institutes). Changes shall be based partly on EPBD recast and experience from Certificates elaboration.

Please mention suggested improvements to the directive

The certification will probably be obligatory for all renovated buildings (not only for greater than 1000m² of floor area).

Calculation of CO₂ emissions should be added.

Please mention problems in implementing the directive

There is a huge discussion about CO₂ emission-factors for fuels. Factors should be used for standardized calculation of emissions produced/saved in future versions of Energy Performance Certificates (nowadays, there is no emissions calculation).

5 Country Report Pomorania – Region of Poland

5.1 Present situation

Apartments

Table 0.1: Ownership structure of Pomeranian dwellings (National Census 2002).

	Total no.of dwellings [1000]	Ownership share [%]/m2							
		Private	Municipal		National Treasure	Company	Public building associet.	Other entit.	
			owners	rented					
Total	658.9	49.5	22.8	8.9	13.6	2.6	2.0	0.4	0.2
Urban	488.3	36.0	30.4	11.7	17.2	2.5	1.5	0.5	0.2
Rural	170.6	88.4	1.1	0.9	3.1	2.7	3.4	0.1	0.3

Type of ownership (e.g. private public)

1: Apartments (private/public) Enter %, numbers and m2 distributes	Please see tab. 2.1.1.
Average heat/hot water consumption if available kWh/year/m ²	No official data Based on assessments, depending on the age of construction-heat demand: 90-380 kWh/year/m ²
2. Does ownership have negative consequences on building rehabilitation? (too rigid majority rules, difficulties in providing collateral for finance)	Depends: in some cases it is easier to take a decision by private houses owners (association) as the group of people is usually smaller then in housing co- operation; on the other hand small HOAs may not have own financing sources
3. Do you see needs for revision of existing regulation in this field?	At the beginning of March the Law on thermomodernization was adjusted – it is stated that up to 100% of the costs can be covered by the credit. It is too early to conclude the changes.
4. Are apartment owners in general aware of the	The knowledge is rather general, need for more

saving possibilities? Is there a need for information and awareness rising?	detailed information and awareness rising campaign
5. Do apartment owners have access to advice on effects on building rehabilitation or is there a need for initiatives in this field.	there a need for initiatives in this field.

Municipal buildings

Types of municipal buildings: (incl. regional ones)

1. Administrative buildings and others m2 Schools/kindergartens m2 Hospitals m2	No data are available
2. Are there supporting or restricting regulations for Rehabilitation of municipal buildings?	The supportive tools are: Thermomodernization Law, Regional and National Operational Programmes
3. What are the incentives for municipalities for rehabilitation of own buildings (does the Municipal gets the benefit of energy savings)? Or others. (Ministries???)	Municipalities benefit of reduced energy costs, also their image as good administrators/managers improve
4. Are municipalities in general aware on saving possibilities or is more information necessary	The knowledge is rather general, need for more detailed information and awareness rising campaign
5. Do municipalities have expertise or access to expertise on building rehabilitation? Is there a need for initiatives in this field? Campaigns/training/advise/audits	Usually they do not have, and have to find experts in this field
6. Average annual heat/hot water consumption if available kWh/year/m ² Administrative buildings and others, kWh/m ² Schools/kindergartens, kWh/m ² Hospitals, kWh/m ²	No data available

Regulatory initiatives for building rehabilitation

1. Are there support schemes for rehabilitations of apartment blocks (grants, advice, special loans etc?) Please specify, please note that WP 3, Tool 1 report also have some information on this. Please enter updates to the information given earlier.

2. Are there support schemes for rehabilitation of single/double family houses (grants, advice, special loans etc?)	Only thermomodernization credit
3. Are there support schemes for rehabilitation of buildings in service sector/industries?	no
4. Are there support schemes or initiatives for rehabilitation of municipal/state buildings?	Yes for municipal buildings and some budget state buildings like universities
5. Are there a need for introduction of supportive regulations or support for rehabilitation projects (grants, advice, special finance etc?) Please specify	Additional financing mechanisms (apart from thermomodernisation credit and operational programmes) shall be implemented, as the demand for financial support is extensive
6. Does energy prices have enough incitement for building rehabilitation or are they too low. Please comment	Usually energy prices based on coal are too low to make building renovation feasible; in other cases when gas/oil/electricity is energy carrier payback time of investment is much shorter
7. Are structural funds available for building rehabilitation? If yes, budget and details	Please see enclosure No2
8. Shall building performance legislation be further strengthen to initiate necessary rehabilitations (by this we mean if current regulation on energy inspection/audit for larger buildings should be improved)	Yes, energy performance certificates should not only include information about measures allowing to improve energy characteristics of dwellings, but also information about costs involved and repayment period, as well as information about available sources of technical advice and financial support
9. Are new (innovative) financial measures used for building rehabilitation? (ESCOs, service contracting, 3 rd party financing etc.??)	no
10. Are there supportive actions in building rehabilitation by institutes, agencies etc? In addition to PSF?	Actually no- there are some other energy agencies dealing with energy issues, there are independent experts/private or companies developing feasibility studies but only PSF tries to combine all aspects of buildings' renovation.
11. Are there a need for further awareness raising	yes

EPBD update

Please mention updates to latest report	
Please mention planned initiatives related to the EPDB	It is planned to amend Building Law, to allow

	persons with Bachelor of Science to qualify for powers to prepare energy performance certificates, and make some paragraphs more precise than they are now
Please mention suggested improvements to the directive	A system of energy performance certificates verification system should be implemented (similarly to thermomodernisation credits), as well as national data base of prepared certificates
Please mention problems in implementing the directive	<ul style="list-style-type: none"> - current form of energy performance certificate is not understandable for addressee- there are no energy classes in Polish system at all, only numeric indicator showing energy needs - there are no comprehensive programmes designed for energy performance certificates preparation available on the market at the moment

5.2 Description of the legislation in the Building Sector

General situation for energy performance in buildings in PSF country

General social consciousness about energy saving needs is quite common. However, it is still necessary to inform about possible ways of reducing energy consumption and financial support for this purpose.

Campaign “Friendly House” has been running for several years in Poland, but it is still necessary to inform and educate administrators of both private and public buildings.

	Ministry/institution	Responsibilities
1.	Ministry of Finance	Financing schemes, taxes,
2.	Ministry of Economy	Programmes on Environment (priority No IX Energy infrastructure and Environment and X-Energy Safety)
3.	Ministry of Infrastructure	Implementation of EPBD
4.	Ministry of Regional Development	Swiss-Polish Programme
5.	Bank Gospodarstwa Krajowego	Thermomodernizatoion credits, Other credits
6.	Urząd Marszałkowski Województwa Pomorskiego	Regional Operational Programmes
7.	National Fund For Environmental Protection	Operational Programmes Infrastructures and Environment

	Building type	Thermorenovation credit	Credit from BOS Bank	EU grants
1.	Public buildings	Yes (if the building's owner is local selfgovernment)	yes	yes
2.	Collective buildings (hotels, motels, social house, etc)	yes	yes	Yes
3.	Industrial buildings	no	yes	yes, if the project is connected with innovation in the company

4.	Service buildings	no	yes	yes, if the project is connected with innovation in the company
5.	One family house (1110 class)	yes	yes	no
6.	Family house of two appartments (1121 class)	yes	yes	Yes, if thermorenovation is consistent with local plan of district renovation
7.	Family house of Tyree appartments (1122 class)	yes	yes	Yes, if thermorenovation is consistent with local plan of district renovation
8.	Energy sources, RES	yes	yes	yes

Tab. Access to financial support in Poland (A.Rajkiewicz, NAPE)

Ownership structure

Ownership structure of residential buildings has hardly any effect on chances of receiving thermomodernisation credit. Both Housing associations and communities, as well as private owners of single family houses have the same rights for applying for thermomodernisation credits.

The new thermomodernisation law has abolished necessary own contribution and the time limit, when it is necessary to repay the credit (10 years until now), however, banks require securing credit repayments, and this may be problematic.

There are no lessons learnt from the new law implementation so far, as it has been forced into law only in March 2009.

Local industries and employment

Polish economy remains under influence of worldwide recession. The economic growth rate in 2008 was slower than the very high observed in the two preceding years.

At the beginning of March 2009 Polish Department of Economy has estimated that economic growth of the country will not exceed 2% in this year, in contrary to 4,8% that has been assumed in 2008. The official budgetary prognosis mentions 3,7%, however, there is also pessimistic governmental scenario predicting economic growth as low as 1,7%.

Constructional production resulting from new dwellings rising has diminished by 4,6% in first quarter of 2009 in comparison to the same period in previous year.

The number of unemployed registered in employment offices at the end of March 2009 amounted to 1758,8 thousand people and was higher by 40 thousand people (2,3%) than one month earlier. In the same period of 2008 its decline has been observed- by 76,4 thousand people (4,3%).

In general registered unemployed constituted in March 2009 11,2% of society occupationally active.

In Pomerania, the number of unemployed has rose in March 2009 by 4% in comparison to February 2009 (the rise of number of unemployed has been noted in 15 voivodships, out of 16 present in country).

Regulatory framework and finance and incentives

Campaign called „Friendly House” has been running for last couple of years. It aims at energy efficiency (www.domprzyjazny.org). There exists also an internet website of the Pomeranian voivodship, that promotes the Regional Programme- one may find there information about obliging regulations and timetable for motions submission (www.woj-pomorskie.pl).

There exists also internet website including information about obliging regulations and timetable for motions submission for the Infrastructure and Environment Operational Programme (www.mg.gov.pl/fundusze/POIS).

All remaining information may be found in Attachment no 2, Table- Support schemes for thermomodernisation of dwellings and heat sources in Poland.

EU regulation

- Certification

Energy performance certificates system exists in Poland since 1 January 2009. There is no database for certificates issued. There is also no system of certificates verification. A standard for heat demand calculation is missing too. There are some records in calculation methodology that are unclear and may be a source of misunderstandings.

- Inspection of boilers and air condition

According to current law it is obligatory to periodically test the efficiency of boilers:

- at least once in 2 years time for non-renewable fuel boilers of power output equal to 100 kW
- at least once in 4 years time for non-renewable fuel boilers of power output equal to 20-100 kW
- at least once in 5 years time for cooling equipment of power output exceeding 12 kW
- installations of power output exceeding 20 kW or older than 15 years shall undergo single control estimating boiler's efficiency

- Requirements for experts and inspectors

Experts: Currently (March 2009) the existing law does not allow persons with Bachelor of Science to prepare certificates (the minimum educational requirement is: M.Sc.)

Inspectors: technical inspections may be conducted by persons with qualifications required for exploitation supervision of installations, appliances as well as energy and gas networks

- Calculations (it can be quite complicated in practice, like the Danish energy frame method)

Currently there are no proper tools- computer programmes- supporting certificates preparation, also clear explanation of some formulas and indicators appearing in calculation methodology is missing.

- Minimum EP requirements (you have reported these; please check if they are still valid).

Until the end of the year a standard shall be introduced for calculating heat demand. The old standard has been cancelled, and the new one has not been prepared yet.

Amendment of the technical conditions for buildings and their location changes insulation conditions in the following way:

Energetics standard for:

- external walls ($t > 16^{\circ}\text{C}$) – 0,30 W/m²K (when applying for thermo-renovation credit : $R_{\text{min}}=4,0$ m²K/W)
- roofs ($t > 16^{\circ}\text{C}$) – 0,25 W/m²K (when applying for thermo-renovation credit: $R_{\text{min}}=4,5$ m²K/W)
- windows 1,7-1,8 W/m²K depending on the area

5.3 Anchoring of WP5 results with local stakeholders

The main target group are building administrators, building owners of houses and public buildings, communities, planners and architects.

6 Country Report Lithuania

6.1 Present situation

Apartments

Type of ownership (e.g. private public)

<p>1: Apartments (private/public) Enter %, numbers and m2 distributes</p>	<p><u>Private apartments:</u></p> <p>95,2% from total apartment area (m²) [1]</p> <p>746.681 pcs [1] 38.763.883 m²[1]</p>	<p><u>Public (State & Municipal) apartments:</u></p> <p>1,89% from total apartment area (m²) [1]</p> <p>18.130 pcs [1] 768.925 m² [1]</p>
<p>Average heat/hot water consumption if available kWh/year/m²</p>	<p>Space heating:</p> <p>1. 150 – 170 kWh/a/m² (90% from total apartment area);</p> <p>2. 70 – 90 kWh/a/m² (10% from total apartment area)</p>	<p>Space heating:</p> <p>1. 150 – 170 kWh/a/m² (86% from total apartment area);</p> <p>2. approx. 90 kWh/a/m² (14% from total apartment area)</p>
<p>2. Does ownership have negative consequences on building rehabilitation? (too rigid majority rules, difficulties in providing collateral for finance)</p>	<p>Decision on rehabilitation of Apartment building is made by majority (50% +1 vote) of owners. Owners who voted against refurbishment are not happy but must obey to majority opinion.</p>	
<p>3. Do you see needs for revision of existing regulation in this field?</p>	<p>When exist 50-100 of quite different owners in one Apartment Building it is not realistic to expect to make decision on refurbishment by solid vote therefore I do not see needs for modifications of existing regulation.</p>	
<p>4. Are apartment owners in general aware of the saving possibilities? Is there a need for information and awareness rising?</p>	<p>Apartment owners, in general, are aware on energy saving possibilities.</p>	

<p>5. Do apartment owners have access to advice on effects on building rehabilitation or is there a need for initiatives in this field.</p>	<p>Apartment owners, first of all, can apply to Housing and Urban Development Agency for both advices on energy efficiency measures and terms for participation in state apartment buildings modernization programme.</p> <p>Additionally, owners can apply to energy consultants.</p>
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Municipal buildings

Types of municipal buildings: (incl. regional ones)

<p>1. Administrative buildings and others m2</p> <p>Schools/kindergartens m2</p> <p>Hospitals m2</p>	<p>383.085 m² [1]</p> <p>6.147.016 m² [1]</p> <p>998.152 m² [1]</p>
<p>2. Are there supporting or restricting regulations for Rehabilitation of municipal buildings?</p>	<p>None</p>
<p>3. What are the incentives for municipalities for rehabilitation of own buildings (does the Municipal gets the benefit of energy savings)? Or others. (Ministries???)</p>	<p>Municipalities pay for own buildings heating from own budget therefore its concern about energy saving.</p> <p>Incentives: Municipalities submit applications to LBSA (Lithuanian Business support Agency is a public institution established by the Ministry of Economy as an implementing agency to manage and administer financial assistance provided by the European Union Structural Funds and national support programmes) on buildings rehabilitation and after designing the funding Municipality implement rehabilitation projects.</p>
<p>4. Are municipalities in general aware on saving possibilities or is more information necessary</p>	<p>Municipalities more or less are aware on energy saving measures but it should be useful to provide them with more detailed information.</p>
<p>5. Do municipalities have expertise or access to expertise on building rehabilitation? Is there a need for initiatives in this field?</p> <p>Campaigns/training/advise/audits</p>	<p>Municipalities do not own experts on building rehabilitation, they subcontract consultants to prepare energy audits or investments projects.</p> <p>But for supervision of construction works usually they do have a professional.</p>
<p>6. Average annual heat/hot water consumption if</p>	<p>Space heating for all type of buildings</p>

available kWh/year/m ²	(administrative, schools, hospitals):
Administrative buildings and others, kWh/m ²	150 – 170 kWh/a/m ²
Schools/kindergartens, kWh/m ²	Data on specific Hot Water consumption related to building floor are not available
Hospitals, kWh/m ²	

[1] LIETUVOS RESPUBLIKOS NEKILNOJAMOJO TURTO REGISTRE ĮREGISTRUOTŲ STATINIŲ APSKAITOS DUOMENYS 2008 M. SAUSIO 1 D. NACIONALINĖ ŽEMĖS TARNYBA PRIE ŽEMĖS ŪKIO MINISTERIJOS VALSTYBĖS ĮMONIŲ REGISTRŲ CENTRAS

[Statistic on buildings included in Lithuanian Register of Realty until 01/01/2008](#). National Land Service under the Ministry of Agriculture.

Regulatory initiatives for building rehabilitation

1. Are there support schemes for rehabilitations of apartment blocks (grants, advice, special loans etc?) Please specify, please note that WP 3, Tool 1 report also have some information on this. Please enter updates to the information given earlier.

The Apartment Building Modernization Programme

For projects approved by March 30, 2008 the subsidy up to 50% of rehabilitation cost was applied.

The regulations of participating in Apartment Building Modernization Programme will be modified in 2009 (probable April) and new subsidy limits will be lower. It is expected that subsidies for new projects will decrease down to 10 – 30%.

2. Are there support schemes for rehabilitation of single/double family houses (grants, advice, special loans etc?)	None
3. Are there support schemes for rehabilitation of buildings in service sector/industries?	None
4. Are there support schemes or initiatives for rehabilitation of municipal/state buildings?	Refurbishment of Municipal and state public buildings according to elaborated by Ministry of Economy priority list is financed from State budget and European Structural Funds
5. Are there a need for introduction of supportive regulations or support for rehabilitation projects (grants, advice, special finance etc?) Please specify	The new supportive measure of Rehabilitation of Apartment Buildings is planned to be introduced: the Elaboration of Typical Technical Design for separate groups of apartment (block) buildings
6. Does energy prices have enough incitement for building rehabilitation or are they too low. Please	Energy prices are relatively low therefore RUE in building measures implementing pay-back

comment	period usually is too long to be attractive
7. Are structural funds available for building rehabilitation? If yes, budget and details	<p>Economic Development Plan, 2009</p> <p><i>Rehabilitation of Public Buildings</i></p> <p>813 mln.LTL from Structural Funds are expected to be assigned for refurbishment of public buildings in 2009 – 2010.</p> <p>Status for 25/03/2009: the total sum of 106 mln. LTL is assigned for rehabilitation of 14 Hospitals, 12 Schools, 2 Sanatoriums and 1 municipal office building.</p> <p><i>Rehabilitation of Apartment Buildings</i></p> <p>Planned sources for Financing of rehabilitation of Apartment Buildings for period 2009 – 2010:</p> <ul style="list-style-type: none"> • 200 mln.LTL are expected to be assigned from Structural Funds; • 500 mln.LTL are expected to be assigned from European Regional Development Fund; • 300 mln.LTL are expected to be assigned from European Investment Bank loan.
8. Shall building performance legislation be further strengthen to initiate necessary rehabilitations (by this we mean if current regulation on energy inspection/audit for larger buildings should be improved)	<p>Building performance legislation obligatory at the moment:</p> <ul style="list-style-type: none"> - building energy passport - building energy certificate. <p>Further, discussion on introduction of special penalties for exceeding of “average energy consumption value” for non retrofitted buildings is under discussion among authorities.</p>
9. Are new (innovative) financial measures used for building rehabilitation? (ESCOs, service contracting, 3 rd party financing etc.??)	Not yet
10. Are there supportive actions in building rehabilitation by institutes, agencies etc? In addition to PSF?	Most known is Housing and Urban Development Agency . This is an institution of the Ministry of Environment, which seeks to

	<p>ensure the proper implementation of programs and measures defined in Lithuanian Housing Strategy in order to create and develop urban planning concepts, effective housing management and maintenance system, promote effective use of energy and enhance energy-efficient modernization of private and public buildings in Lithuania.</p> <p>Other</p>
<p>11. Are there a need for further awareness raising or initiatives?</p>	<p>It is only small part of public and private buildings under rehabilitation so far, therefore further awareness raising or initiatives are still needed.</p>

EPBD update

It is obligatory certification of *new erected* buildings since 01/01/2007 while for the rest of buildings since 01/01/2009.

Progress for 31/03/2009

Total number of Buildings Certified for Energy Performance is estimated to be 1619 pcs. (incl. 166 of administrative, 22 medical, 106 industrial and 786 living buildings, etc.).

Total number of Qualified Experts for Certification of energy performance of buildings is 256.

6.2 Description of the legislation in the Building Sector

National Legal Framework relevant to buildings retrofitting projects:

1. **The Law on Construction, 1996** [STATYBOS ĮSTATYMAS, 1996]
 2. **National Energy Strategy, 2002** [NACIONALINĖ ENERGETIKOS STRATEGIJA, 2002]
 3. **Energy Law, 2002** [ENERGETIKOS ĮSTATYMAS, 2002].
 4. **Law on the Amendment of the Law on Construction, 2002** [STATYBOS ĮSTATYMO PAKEITIMO ĮSTATYMAS, 2002]
 5. **The Law on Implementing Law on State Support for Purchasing or Renting an Apartment and for Modernizing Multi-family Apartment Houses, 2002** [LIETUVOS RESPUBLIKOS VALSTYBĖS PARAMOS BŪSTUI ĮSIGYTI AR IŠSINUOMOTI BEI DAUGIABUČIAMS NAMAMS MODERNIZUOTI ĮSTATYMO ĮGYVENDINIMO ĮSTATYMAS, 2002]
 6. **The Law on Heating Sector, 2003** [ŠILUMOS ŪKIO ĮSTATYMAS, 2003]
 7. **National Strategy of Sustainable Development, 2003** [Nacionalinė darnaus vystymosi strategija, 2003]
- Dwelling Strategy, 2004** [Būsto strategija, 2004]
8. **The Law on State Support for Purchasing or Renting an Apartment and for Modernizing Multi-family Apartment Houses, 2005** [LIETUVOS RESPUBLIKOS VALSTYBĖS PARAMOS BŪSTUI ĮSIGYTI AR IŠSINUOMOTI BEI DAUGIABUČIAMS NAMAMS MODERNIZUOTI ĮSTATYMAS, 2005]
 9. **Apartment building refurbishment programme, 2005** [DAUGIABUČIŲ NAMŲ MODERNIZAVIMO PROGRAMA 2005]
 10. **Regulations of Providing the State Support for Refurbishment of Apartment Buildings, 2005** [VALSTYBĖS PARAMOS DAUGIABUČIAMS NAMAMS MODERNIZUOTI TEIKIMO IR INVESTICIJŲ PROJEKTŲ ENERGINIO EFEKTYVUMO NUSTATYMO TAISYKLES 2005]
 11. **National Energy Efficiency Programme for 2006-2010** [NACIONALINĖ ENERGIJOS VARTOJIMO EFEKTYVUMO DIDINIMO 2006–2010 METŲ PROGRAMA, 2006]
 12. **Energy Efficiency Actions Plan, 2007** [Energinės efektyvumo veiksnių planas 2007]
 13. **[Economic Development Plan, 2009](#)** [Ekonomikos skatinimo planas, 2009]

General situation for energy performance in buildings

STATUS of rehabilitation of Public Buildings on 24-03-2009, information based on [official publication of Ministry of Economy](#)

There are 178 applications for public buildings refurbishment submitted to LBSA ([Lithuanian Business support Agency](#)) which is a public institution established by the Ministry of Economy as an implementing agency to manage and administer financial assistance provided by the European Union Structural Funds and national support programmes at the moment. Lists of public buildings to be rehabilitated are prepared by Economy Ministry. State financing of mentioned projects is up to 100%.

Financing of first rehabilitation projects for 14 Hospitals, 12 Schools, 2 Sanatoriums and 1 municipal office building is already assigned, the total sum of rehabilitation cost is estimated to be 106 mln. LTL.

It is planned to assign totally 813 mln. LTL from EU Structural funds for financing of public building rehabilitation projects for period 2009 – 2010 y.

STATUS of rehabilitation of Apartment (private) Buildings on 03-04-2009, in formation source newspaper/web site [Business News](#)

The current situation is so that there are approx. 700 of apartment buildings after rehabilitation by 01-04-2009 while total number of apartment buildings to be rehabilitated is estimated to be 28 – 30 thousand.

The working team prepared certain modifications to financing model of Apartment Building Modernization Programme according to which owners will be able to obtain preferential loan with 3% bank interest for 20y. It will be granted up to 15% of building rehabilitation cost for apartment owners however for low income families it will be granted up to 100% of loan cost.

It is planned that applying such financial model 500 of apartment buildings will be rehabilitated this year, 1000 next year and further 2000 buildings annually.

Elaborated financial model will be presented to government for approval in the middle of April.

It is planned to assign 1000 mln. LTL for rehabilitation of Apartment buildings during 2009 – 2010 y.

Ownership structure

According to current regulations, the decision on rehabilitation of Apartment building is made by majority (50% +1 vote) of owners.

Number of votes is important for loan security cost. For instance, the current loan security costs are as follows:

- 0,52% (votes 50% - 60%);
- 0,44% (votes 60% - 70%);
- 0,37% (votes above 70%)

Local industries and employment

Generally, the potential of construction as well as building material manufacturing companies is rather significant but nowadays erection of new buildings both public and living is nearly completely stopped in Lithuania. Unemployment among construction companies grows-up day by day.

Building industries such as windows, construction and isolating materials and others are operated on 50% – 75% of capacity and it is expected further decreasing.

If large-scale rehabilitation of buildings process will not start soon many of construction companies and manufacturers will expect the bankruptcy.

Regulatory framework and finance and incentives

State programme supporting rehabilitation of apartment buildings is called Apartment Building Modernization Programme. The programme started on 2004. Status on 03/04/2009: number of submitted applications is 720; number of implemented projects is 307. Terms for participation in Programme were changed few times and the last modification will be officially approved this April. It is expected that maximum allowed subsidy of building refurbishment cost will be reduced from 50% (which is valid today) down to 15%.

EU regulation

The Certification of Building Energy Performance calculation procedure is defined in Building Technical Regulation STR 2.01.09:2005 „Energy Performance of Buildings; Certification of Energy Performance of Buildings“. The calculation procedure needs some adjustments. The shortage is following: the specific energy consumption in new buildings having different glazing areas of external walls it is always less in building which has smaller glazing area and it is normal. But rather unusual is that when you define building's energy consumption class, it can be calculated that building with smaller external glazing facades and larger external glazing depend to the same energy class despite big difference in specific energy consumption of buildings.

At the moment feasibility of introduction of special “CO2 fee” for apartment's owners is under consideration. The idea is that in old apartment building energy consumption for space heating exceed certain average value (for instance 120 kWh/a/m²) the owners should pay some extra fee if they do not rehabilitate the building.

No any changes made in local standards so far.

6.3 Anchoring of WP5 results with local stakeholders

Probable, this report should be interesting, first of all, for Ministries of Environment and Finance. And most interesting information for them would concerns the experience of neighbour countries, i.e. Experience of Latvia, Poland, Czech.

The WP5 study in, preferable, electronic format with covering letter will be sent to Environmental Ministry, Ministry of Finance and Municipalities inviting them to contact for providing PSF with comments as well as for further discussion and collaboration.

7 Country Report Latvia

7.1 Present situation

Apartments

Type of ownership (e.g. private public)

1: Apartments (private/public) Enter %, numbers and m2 distributes	Private - 52,5 mil.m ² (87%) Public – 7,6 mil.m ² (13 %)
Average heat/hot water consumption if available kWh/year/m ²	Heat consumption: 120 kWh/year/ m ² – 225 kWh/year/ m ² Hot water consumption: 75 kWh/year/ m ² - 70 kWh/year/ m ²
2. Does ownership have negative consequences on building rehabilitation? (too rigid majority rules, difficulties in providing collateral for finance)	Private ownership of apartments helps to solve the problems in the process of building rehabilitation
3. Do you see needs for revision of existing regulation in this field?	No
4. Are apartment owners in general aware of the saving possibilities? Is there a need for information and awareness rising?	The number of awareness campaigns on saving possibilities in buildings grew significantly in the last two years. But anyway it is necessary to continue and to enlarge this process.
5. Do apartment owners have access to advice on effects on building rehabilitation or is there a need for initiatives in this field.	Yes.

Municipal buildings

Types of municipal buildings: (incl. regional ones)

1. Administrative buildings and others m2 Schools/kindergartens m2 Hospitals m2	Data is not available.
2. Are there supporting or restricting regulations for rehabilitation of municipal buildings?	No
3. What are the incentives for municipalities for	Incentives and benefits for municipalities are the same as for other building rehabilitation -

rehabilitation of own buildings (does the municipal get the benefit of energy savings)? Or others. (ministries???)	energy saving and money saving.
4. Are municipalities in general aware on saving possibilities or is more information necessary	Municipalities are not good aware on Energy Efficiency in Buildings in Latvia now.
5. Do municipalities have expertise or access to expertise on building rehabilitation? Is there a need for initiatives in this field? Campaigns/training/advise/audits	Some municipalities in Latvia have access to expertise on building rehabilitation, especially in municipalities where there are Local Energy Agencies like Riga and Jelgava. There are Energy Managers in some small municipalities in Latvia, for example in Jekabpils, Tukums, Valmiera, Valka and Vilani. This Energy Managers are responsible for Energy Efficiency in Buildings in their administrative territory.
6. Average annual heat/hot water consumption if available kWh/year/m ² Administrative buildings and others, kWh/m ² Schools/kindergartens, kWh/m ² Hospitals, kWh/m ²	Data is available only for some buildings.

Export potential

Describe based on the above products which today have a relevant export potential and which might be developed further.

Export potential exists but it is necessary to examine the market availability for export from Latvia.

Employment effects

1: How is employment situation today in building sector (it has been high in most countries for some years, and decreasing with the financial crises)	7495 firms were registered in Constructing business register in 31 of March 2009 from which 5818 could run a business in Constructing. 1749 (23%) constructing firms were removed from Constructing business register in first quarter of year 2009.
2: Is there registered an effect on employment related to the ongoing international finance crisis	Ongoing international finance crisis extremely effected employment in Constructing Sector in Latvia.

3: Does there exist data on employment in building sector? Employment of building workers? Employment in related industries? Legislation; Name and Type. (Add Cells as appropriate)	Data is not available
4: Are there political initiatives for increasing employment in building sector	Not

Regulatory initiatives for building rehabilitation

1. Are there support schemes for rehabilitations of apartment blocks (grants, advice, special loans etc?) Please specify, Please enter updates to the information given earlier.

“State Support program for promotion of multifamily apartments buildings renovation for years 2007-2010” (approved 25.05.2007) is the main support documents for rehabilitations of apartment blocks. For Program implementation Cabinet of Ministers is approved requirements how it is possible to get financial support for energy efficiency in 2008 – 2010.

2. Are there support schemes for rehabilitation of single/double family houses (grants, advice, special loans etc?)	Special Banks loans.
3. Are there support schemes for rehabilitation of buildings in service sector/industries?	There are not special support schemes for buildings in service sector and industries.
4. Are there support schemes or initiatives for rehabilitation of municipal/state buildings?	No
5. Are there a need for introduction of supportive regulations or support for rehabilitation projects (grants, advice, special finance etc?) Please specify	No
6. Does energy prices have enough incitement for building rehabilitation or are they too low. Please comment	Energy prices (electricity and heat) are very high for the most part of Latvian inhabitants. The situation with debtor turned up in winter this year – some people could not pay for heat supply.
7. Are structural funds available for building rehabilitation? If yes, budget and details	In accordance with the “State Support program for promotion of multifamily apartments buildings renovation for years 2007-2010”

	<p>building owners could get financing for energy efficiency actions if:</p> <ul style="list-style-type: none"> - Apartment building area is more than 300 m² and uninhabitable area is less than 25% from total area; - Building owner is society; - One person is owner not more than ½ numbers of building flats. <p>Total financial support – 23,7 mil.EUR (16,6 mil. LVL) from which state budget – 15% and European Regional Development Fund (ERDF) budget –85%. This financial support is available from April 2009 and financing is divided in to four rounds: 3 rounds by 4 mil.LVL and 4th – 4,6 mil.LVL.</p> <p>Financing support expects to cover till 50% of the total financing for energy efficiency and not more than 100 000 IVL and 35 LVL for 1 m².</p> <p>Financial support for social houses (for people with low income) was given in year 2008 – 13 133 th. EUR from which ERDF financing was 75% and state and municipality budget was 25%.</p> <p>For social houses rehabilitation projects financial support was 199 203 EUR from ERDF for each project.</p>
<p>8. Shall building performance legislation be further strengthen to initiate necessary rehabilitations (by this we mean if current regulation on energy inspection/audit for larger buildings should be improved)</p>	<p>The Legislative basement on Energy Efficiency (Law on the Energy performance with Regulations) is rather good elaborated in Latvia now.</p>
<p>9. Are new (innovative) financial measures used for building rehabilitation? (ESCOs, service contracting, 3rd party financing etc.??)</p>	<p>ESCOs do not exist in Latvia up to now. Green investments scheme are now in preparation stage. One of the directions of financing from Green investments scheme</p>
<p>10. Are there supportive actions in building rehabilitation by institutes, agencies etc? In addition to PSF?</p>	<p>Building, Energy and Housing State Agency now is the main Agency for Energy Efficiency in buildings in Latvia and this Agency starts the active work on energy efficiency in Apartment buildings. Some Banks in Latvia are very active</p>

	in these actions too.
11. Are there a need for further awareness raising or initiatives?	Awareness campaigns are the most effective instrument for building rehabilitation. It is necessary to enlarge awareness campaigns on building renovation in mass medias in Latvia.

EPBD update

Please mention planned initiatives related to the EPDB

Please mention suggested improvements to the directive

Please mention problems in implementing the directive

Law on the Energy performance of Buildings was approved (came into force on 1 January 2009) and three Regulations – Regulation about Energy Auditors; Regulation on Energy Certification of Buildings and “Methodology of Energy Performance of a Building”.

All legislative acts that were adopted in last two years are very helpful and conducive for the process of EE in Buildings.

Financial crises and all consequences.

7.2 Description of the legislation in the Building Sector

According to the Latvian Energy Efficiency Strategy for the years 2008 - 2010 (2007) following goals should be achieved until 2016:

- Energy audit realization in multi - family houses;
- Energy audit realization in public and municipal buildings;
- Reducing average energy demand index in buildings from 220 – 250 kWh/m²/year to 195 kWh/m²/year in 2016 and to 150 kWh/m²/year in 2020;
- Reducing average energy demand index in buildings from 220 – 250 kWh/m²/year to 150 kWh/m²/year in 2020;

The Legislative basement on Energy Efficiency (Law on the Energy performance with Regulations) is rather good elaborated in Latvia now. Law on the Energy performance of Buildings was approved (came into force on 1 January 2009) and three Regulations – Regulation about Energy Auditors; Regulation on Energy Certification of Buildings and “Methodology of Energy Performance of a Building”.

Construction, Energy and Housing State Agency now is the main organization which is responsible for Energy Efficiency in buildings in Latvia and this Agency starts the active work on energy efficiency in Apartment buildings. Construction, Energy and Housing State Agency is responsible for:

- Energy Efficiency in wide,
- Housing conception privatization and housing management: energy consumption and energy efficiency in building sector.

Agency will be under supervision of Ministry of Economy.

Some Banks in Latvia are very active in these actions too.

General situation for energy performance in buildings in PSF country

Some positive changes took place in financing of Energy Efficiency Projects in Housing Sector in this year.

Realised Project applicants faced a problem to reach at least 75% apartment owners agreement to take loan and to start whole renovation of dwelling (it is required by the bank in case there is no any additional security provided). From this year it is enough to **have 50% of apartment owner's** agreement to take loan in Latvian Banks.

Cabinet of Ministers approved **Regulations Nr. 59** in February 2008 “State Budget co financing of energy efficiency activities in dwellings” on the amount of co financing and the rules of procedure. In this Regulation is noted that:

- 284,6 EUR for multifamily house auditing and

- 20% from total investments for the multifamily house renovation project.

This co financing is really available from the 2009 year.

Ownership structure

Ownership structure is changed strongly in 19th as a result of the privatization process in Latvia and this process continues in the last year also. Private ownership structure's dynamic is shown in the following Table.

Housing stock at the end of the year (total floor space; mln m²)

	2000	2005	2006	2007
Housing stock - TOTAL	53,5	57,0	58,7	60,1
public	12,9	8,1	7,8	7,6
private	40,6	48,9	50,9	52,5
Per capita, m ²	22,6	24,8	25,7	26,4

Amendments for the "Privatization of State and municipal apartments" Law is under discussions now for the purpose to do the process of privatization more easers and speedy for inhabitants with the idea to promote the process of building renovation.

From the year 2008 it is enough to **have 50% of apartment owner's plus 1 apartment owner** agreement to take loan in Latvian Banks (some Banks decided that it is necessary 75% of apartment owners shall approved building renovation for energy efficiency).

There are not special support schemes for buildings in service sector and industries.

The main problem now is – people with low income are more and more in accordance with crisis and high level of unemployment in Latvia.

Local industries and employment

Financial crisis affected the building sector more then other sectors in Latvia. The unemployment level in construction industry is the highest. There are no special State programs for the building sector development in the moment.

Decrease in construction sector pill up all decreasing in other linked sectors.

Regulatory framework and finance and incentives

The first practical step of this Law is the "State Support Programme of Apartment Dwelling House Renovation Promotion for 2007–2010".

The Programme ensures the implementation of the task defined in the declaration on the planned activity of the Cabinet of Ministers – to carry out the state support programme of apartment house renovation and energy efficiency improvement by simultaneously increasing the interest and responsibility of joint proprietors, as well as implementation of the task stipulated in Energy Development Guidelines for 2007 – 2016 – to realize the state support programme for the performance of energy audit and building renovation.

In accordance with the "State Support program for promotion of multifamily apartments buildings renovation for years 2007-2010" building owners could get financing for energy efficiency actions if:

- Apartment building area is more than 300 m² and uninhabitable area is less than 25% from total area;
- Building owner is society;
- One person is owner not more than ½ numbers of building flats.

Total financial support – 23,7 mil.EUR (16,6 mil. LVL) from which state budget – 15% and European Regional Development Found (ERDF) budget –85%. This financial support is available from April 2009 and financing is divided in to four rounds: 3 rounds by 4 mil.LVL and 4th – 4,6 mil.LVL.

Financing support expects to cover till 50% of the total financing for energy efficiency and not more than 100 000 LVL for each building or 35 LVL for 1 m² .

Financial support for social houses (for people with low income) was given in year 2008 – 13 133 th. EUR from which ERDF financing was 75% and state and municipality budget was 25%.

For social houses rehabilitation projects financial support was 199 203 EUR from ERDF for each project.

Financial schemes and mechanisms are rather limited in Latvia now – there are no registered ESCOS in Latvia; establishment of Revolving Fund is under discussion.

EU regulation

Latvian Regulation on EPBD is in strong connection with the EU Regulation directive on EPBD.

Law on the Energy performance of Buildings was approved (came into force on 1 January 2009) and three Regulations – Regulation about Energy Auditors; Regulation on Energy Certification of Buildings and "Methodology of Energy Performance of a Building".

EU Structural Funds, the intelligent Energy projects as well as EU Interreg IV program, Baltic Sea Region program which exist in Latvia and are the very good instruments for the Energy Efficiency realization.

7.3 Anchoring of WP5 results with local stakeholders

The main local target groups and stakeholders are in Latvia - building owners, building owners cooperatives; companies, which are responsible for building renovation; municipalities; Constructing, Energy and Housing State Agency; ministry of Economics; Different Housing Associations; local Energy Agencies.

The dialog with the local stakeholders could be organized through the different seminars, for example in time of Energy&Energy Efficiency local Exhibitions that are traditionally organized in Riga each year, awareness campaigns on EE (rather expensive), the visual information about Building renovation on the facades of renovated buildings.

Annex 1 Local industries relevant for building sector rehabilitation

Czech Republic

List of local industries that have a strong position on technical devices for building rehabilitation. (pumps, meters, radiators, ventilators, boilers, regulators etc)

Name	Type of Industry/supplier etc.	Contact Details
Atmos	Boilers	http://www.atmos.cz/english/
Atrea	Ventilation systems	http://www.atrea.cz/
Dakon	Boilers	http://www.dakon.cz/cs/Default.aspx
Korado	Radiators	http://www.korado.cz/
Moratop	Boilers	http://www.moratop.cz/
Protherm	Boilers	http://www.protherm.eu/index.php?lang=en
Viadrus	Boilers	http://www.viadrus.cz/web/structure/2.html
Regulus	Boilers, ventilation, regulation, solar panels, heat-pumps	http://www.regulus.cz/
Thermona	Gas boilers	http://www.thermona.cz/
Verner	Biomass boilers	http://www.kotle-verner.cz/

***(shall most likely be part of annex)

Lithuania

Name	Type of industry/supplier etc.	Contact Details
UAB Fauga	Plastic windows and partitions, External and internal doors, Sliding and folding door systems for terraces and large format opening	+370 5 279 01 56
UAB Arlanga	Plastic and wood windows and doors	+3705 231 16 21
UAB Sabonio klubas ir partneriai	Plastic windows, doors and partitions, Aluminium profile windows, doors and partitions	+370 37 75 09 40
UAB Hronas	Plastic, wood, aluminium profile	+370 5 239 88 77

	windows and doors, partitions. Aluminium-wood-glass fasades	
UAB Plaza langai	Plastic, wood, aluminium profile windows and doors. Balkony glazing plastic, aluminium, frameless. Roof windows plastic and wood profile.	+370 37 47 39 38
UAB Lanlita	PVC windows and doors, aluminium constructions.	+370 37 39 11 70
UAB Megrame	PVC, wood, aluminium windows and doors, partitions.	+370 5 273 70 14
UAB Kauno šilas	Expandable polystyrene panels for building heat insulation	+370 37 35 01 39
UAB Baltijos polistirenas	Polystyrene foam board	+370 55 15 18
UAB Paroc	Mineral wool	+370 5 274 00 00
UAB Paklotas	Sound isolating mats	370 5 269 13 15
UAB Ukmergės gelžbetonis	Ferom concrete slabs, lintels, joists, concrete blocks, columns, concrete and mortar. Expandable polystyrene panels for building heat insulation	+370 340 64 616
UAB Kauno gelžbetonis	Concrete and reinforced concrete products manufacturing. Concrete, building mixtures.	+370 37 45 17 45
UAB Ekoblokai	Wood cement blocks	+370 5 240 24 98
UAB Termosnaigė	Thermal insulation finishing panels	+370 315 77 866
UAB Metalplast Vilnius	Sandwich construction panels	+370 5 233 38 13
UAB Plastforma	Manufactures pust polyethylene products - puffed polyethylene film, shell.	+370 444 60 232
AB Akmenės cementas	Cement	+370 425 58 323
AB Dvarčionių keramika	Ceramic tiles	+370 5 231 70 21

AB Rokų keramika	Ceramic wall units, partition units	+370 37 346610
Gargždų plytų gamykla AB	Silicate brick production	+370 380 35 190
UAB Gargždų mida	Polymer-modified bitumen roofing products	+370 46 455 356
Jašiūnų keramika UAB	Manufactures ceramic bricks, tiles.	+370 380 35 190
Kupiškio plytų gamykla UAB	Calcium silicate blocks, silicate brick production	+370 459 35 240
UAB Ruukki Lietuva	Steel, stainless steel and aluminium as standard and special products, parts and components	+370 5 232 2314
AB Jūrės medis	Manufactures glued laminated timber load-bearing straight or curved beams, single or double pitched beams, arches, trusses, frames	+370 343 95 083
UAB Lentvario mediena	Construction Wood (tacky, joist, mulatto, floorboards, trim boards (internal and external))	+370 698 49 210
UAB Kalvis	Manufactures heating equipment: kitchen stoves, domestic boilers, pellet firing boilers, air heaters and furnaces, sauna boilers, industrial boilers. Sheet metal products, technological equipment, assemblies and parts	+370 41 540-562
UAB Aremikas	Manufactures solid fuel boiler "Žvakė"	+370 443 25411
UAB Atrama	Manufactures central heating boilers, boilers for bath houses, air heaters, instantaneous water heaters, heat accumulators, hot water storage boilers. LPG tanks and bottles.	+370 37 36 18 01

Latvia

1. Describe local industries which today have a strong position in relation to building material (building materials and low energy windows, insulation material and others)

Manufacture of other non-metallic mineral products (mostly construction materials) has very unstable growth rates. After steep growth by 15.3% in 2002 the growth rate was more moderate in 2003 (by 5.4%) but was rather fast again in 2004 and 2005 (by 12.5% and 24.1% respectively).

Increase of domestic demand is the main incentive for growth of the sector. Growth of exports in 2004 and 2005 was also significant and had been especially fostered by rising export prices. Exports to the EU-15 countries increased especially fast in 2005.

<p>2. Describe local industries having a strong position on technical devices for building rehabilitation. (pumps, meters, radiators, ventilators, boilers, regulators etc)</p>	<p>The strongest position is boilers production – Komforts, Ltd., Orions, Ltd. Radiators produce “Tipro Baltic” factory in Olaine (95% of production is export to Western countries).</p>
<p>3. Describe which potential there exists for further domestic production of building technologies</p>	<p>Potential for further production of building technologies exists in Latvia in accordance with the existing production areas and availability of low-cost manpower. The problem is that the market of technical devices for building rehabilitation is full of goods.</p>
<p>4. Are structural funds available for such industries?</p>	<p>Yes.</p>

Annex 2 Template for analysing the Regulatory Framework For Energy Performance of Building Measures In Target Regions

Present situation

Country: _____

Apartments:

Type of ownership (e.g. private public)

1: Apartments (private/public) Enter %, numbers and m2 distributes	
Average heat/hot water consumption if available kWh/year/m ²	
2. Does ownership have negative consequences on building rehabilitation? (too rigid majority rules, difficulties in providing collateral for finance)	
3. Do you see needs for revision of existing regulation in this field?	
4. Are apartment owners in general aware of the saving possibilities? Is there a need for information and awareness rising?	
5. Do apartment owners have access to advice on effects on building rehabilitation or is there a need for initiatives in this field.	

Municipal buildings:

Types of municipal buildings: (incl. regional ones)

1. Administrative buildings and others m2 Schools/kindergartens m2 Hospitals m2	
2. Are there supporting or restricting regulations for Rehabilitation of municipal buildings?	
3. What are the incentives for municipalities for rehabilitation of own buildings (does the Municipal gets the benefit of energy savings)? Or others. (Ministries???)	

4. Are municipalities in general aware on sawing possibilities or is more information necessary	
5. Do municipalities have expertise or access to expertise on building rehabilitation? Is there a need for initiatives in this field? Campaigns/training/advise/audits	
6. Average annual heat/hot water consumption if available kWh/year/m ² Administrative buildings and others, kWh/m ² Schools/kindergartens, kWh/m ² Hospitals, kWh/m ²	

Local industries relevant for building sector rehabilitation (shall most likely be part of annex)

List local industries that have a strong position on technical devices for building rehabilitation. (pumps, meters, radiators, ventilators, boilers, regulators etc)

Name	Type of Industry/supplier etc.	Contact Details
		Please add cells according to your need

Regulatory initiatives for building rehabilitation

1. Are there support schemes for rehabilitations of apartment blocks (grants, advice, special loans etc?)
Please specify, please note that WP 3, Tool 1 report also have some information on this. Please enter updates to the information given earlier.

2. Are there support schemes for rehabilitation of single/double family houses (grants, advice, special loans etc?)	
3. Are there support schemes for rehabilitation of buildings in service sector/industries?	
4. Are there support schemes or initiatives for rehabilitation of municipal/state buildings?	
5. Are there a need for introduction of supportive	

regulations or support for rehabilitation projects (grants, advice, special finance etc?) Please specify	
6. Does energy prices have enough incitement for building rehabilitation or are they too low. Please comment	
7. Are structural funds available for building rehabilitation? If yes, budget and details	
8. Shall building performance legislation be further strengthen to initiate necessary rehabilitations (by this we mean if current regulation on energy inspection/audit for larger buildings should be improved)	
9. Are new (innovative) financial measures used for building rehabilitation? (ESCOs, service contracting, 3 rd party financing etc.??)	
10. Are there supportive actions in building rehabilitation by institutes, agencies etc? In addition to PSF?	
11. Are there a need for further awareness raising or initiatives?	

EPBD update

Please check your country report on EU EPBD www: <http://www.buildingsplatform.eu>

Look for Country reports, December 2008 and please inform if any changes or developments related to implementation of the directive.

Please mention updates to latest report	
Please mention planned initiatives related to the EPDB	
Please mention suggested improvements to the directive	
Please mention problems in implementing the directive	

Description of the legislation in the Building Sector

In this chapter please write short sections on problems or cases for inspiration for the regulatory framework. Please write short and in free style on your problems or suggestions according to the headlines. If you suggest changing existing laws or regulations please state the title and paragraphs.

General situation for energy performance in buildings in PSF country.

Awareness, political support, citizens awareness, capital market, competence and resources of involved ministries and institutes,

Ownership structure

The Partners are requested to examine ownership structures and their implication on the Energy renovation in buildings. Can a minority block a project in an apartment bloc? Are there financial or collateral problems related to security for loans etc.

Local industries and employment

Please state problems and opportunities for your country/region with regard to industries competences and potentials. What can be done to support the sector? Structural funds or other? What is the employment situation in the building sector? Is it affected by the financial crisis and has programmes been started related to this?

Regulatory framework and finance and incentives

What public programmes exist for promotion/implementation of rehabilitation of buildings? Subsidies, advise, audits, campaigns, soft loans. Are there new initiatives like Energy Saving Commitments or other programs according to the EU Energy Service Directive 32/2006 like use of ESCO, PPP or other initiatives? Are structural funds utilised in certain programmes? Please also mention good programs for inspiration. WP 3 has also touched upon the incentives schemes. Therefore please review reports section 6 and update if new information is available. (Report 3 Tool 1 "Recommendations on financial schemes.....Enclosed). Also there are some information of same character in Section 3.6 of the template for the Second Annual Report.

EU regulation

Please bring an update on the implementation on the EU directive on EPBD.

<http://www.buildingsplatform.eu> contains latest country reports. Please review these for updates.

Please write your own impression on the implementation related to the main themes:

- Certification
- Inspection of boilers and air condition

- Requirements for experts and inspectors
- Calculations (it can be quite complicated in practice, like the Danish energy frame method)
- Minimum EP requirements (you have reported these; please check if they are still valid).

Please mention possibilities for improvements of the directive (stricter requirements, complicated procedures, etc.)

Please present future plans and legislative frameworks which might affect the success of the EE in building regulation.

If the concrete norms for building insulation effects are changed compared to the report of WP3 please indicate.

Anchoring of WP5 results with local stakeholders

Please indicate:

- Who are the main local target groups/beneficiaries of the WP5 study and how could the results of work best be integrated in the local planning process (e.g. could the study be of interest for programmers of structural funds, is it of relevance for actors in the PSF Steering Group etc.)
- In view of the above, how do you envisage the dialogue with the local stakeholders on the WP5 study to proceed in the best way and what does this imply for the focus of WP5 work and its priorities

Summary Report

In this part of the report the coordinator will extract the key findings and analysis presented in the previous Sections in order to extract drivers for the success of Energy Efficient initiatives in the building sector and also investigate and present a list of recommendations of replication value for other EU regions.

The coordinator will also in this Sector include findings and results from other IEE Projects in order to broaden the perspective to other regions and countries.