SURVEY REPORT

Progress in energy efficiency policies in the EU Member States - the experts perspective

Findings from the Energy Efficiency Watch Project
2012

Christiane Egger (O.Ö. Energiesparverband)

with contributions by
Reinhold Priewasser, Michaela Kloiber (University of Linz)
Lucia Bezáková (Eufores), Nils Borg (eceee), Dominique Bourges (Fedarene),
Peter Schilken (Energy Cities)
*Disclaimer:*
The sole responsibility for the content of this publication lies with the authors. It does not necessarily reflect the opinion of the European Union. Neither the EACI nor the European Commission are responsible for any use that may be made of the information contained therein.

© O.Ö. Energiesparverband, Landstrasse 45, A-4020 Linz/Austria, ZVR 171568947
Contents

Summary and main conclusions 5

Introduction and objectives 11
- The policy framework 11
- The Energy Efficiency Watch Project 2 (EEW2) 11
- The EEW2 survey 12

Approach and methodology of the survey 14
- Quantitative survey 15
- Qualitative survey 15

Survey Results 19
- Survey Results by Member State 19
  - Austria 19
  - Belgium 22
  - Bulgaria 24
  - Cyprus 26
  - Czech Republic 28
  - Denmark 31
  - Estonia 33
  - Finland 36
  - France 38
  - Germany 40
  - Greece 43
  - Hungary 45
  - Ireland 47
  - Italy 49
  - Latvia 51
  - Lithuania 53
  - Luxembourg 55
  - Malta 58
  - The Netherlands 60
  - Poland 63
  - Portugal 65
  - Romania 67
  - Slovak Republic 69
  - Slovenia 72
  - Spain 74
  - Sweden 76
  - United Kingdom 78
- Survey Results across Member States
  - Quantitative survey
    - Progress indicator
    - Overall ambition
    - Progress in the last 3 years
    - National energy savings targets
    - Improvements in ESD focus areas
    - Gaps in energy efficiency policies
    - Barriers to energy efficiency
    - Specific energy efficiency policy instruments
    - Need to act on European level
  - Qualitative survey: good practice examples
  - Results from the network discussions

Annex (separate document)
- Quantitative survey: Questionnaire and all tables
- Qualitative survey: Country summaries
- Network report summaries
Summary and main conclusions

The project

In 2006, the European Union adopted the Directive on energy end-use efficiency and energy services ("ESD"). The Directive sets an indicative energy saving target of 9% by 2016 as well as obligations on national authorities regarding energy savings, energy efficient procurement and the promotion of energy efficiency and energy services. It requires Member States to submit three National Energy Efficiency Action Plans (NEEAPs), scheduled for 2007, 2011 and 2014.

The Energy Efficiency Watch Project 2 (EEW2) aims to facilitate the implementation of the ESD and in general energy efficiency policies in the EU. It is co-funded by the Intelligent Energy Europe programme and coordinated by Eufores. It runs from autumn 2010 to summer 2013 and builds upon the EEW1 project (2007 - 2010).

One key activity of the EEW2 project was an extensive survey on the implementation results of the first NEEAPs in the 27 Member States. The aim of the survey was to learn from stakeholders, experts and relevant networks how they see the progress of energy efficiency policies and their implementation in different sectors since the first NEEAP in their respective country.

The survey consisted of a quantitative survey, using a questionnaire (655 questionnaires were completed between March and November 2011) and a qualitative survey, using a interview guideline (3 experts in each Member States were interviewed between April and September 2012). Additionally, the partner networks Fedarene, Energy Cities and ECEEE consulted their members and EUFORES collected views from European energy efficiency networks and associations.

In total, more than 700 experts from all 27 EU Member States were consulted about the progress on energy efficiency policy in their own country.

The main findings and conclusions

Political will: understanding of the benefits of energy efficiency

The survey showed on an enormous disparity among Member States in the levels of ambition of their energy efficiency policies. In some Member States, the recognition of the economic, social, political and environmental benefits of energy efficiency drive ambitious legislation and funding programmes whereas others just do the bare minimum required by the European Directives (and sometimes not even that).
Comprehensive and stable support for energy efficiency is based on political will, motivated by an understanding of benefits of energy efficiency for the society. Experts are concerned by the fact that energy efficiency has not sufficiently managed to attract the attention of the highest political levels. Especially in times of financial crisis - which in many countries resulted in a reduction of programmes for energy efficiency - it remains a key challenge to provide proof that energy efficiency is not a burden on public finances but the opposite: a way to save money in public buildings and a significant factor for job creation and tax income.

The renewable energy sector has led the way in presenting itself as a powerful sector in creating jobs and innovation, provided that a stable legal and financial framework exists. An increased effort from energy efficiency stakeholders and the European institutions in communicating the benefits of energy efficiency as concretely as possible are required.
A new and ambitious framework of energy efficiency policies needed

A large number of experts - especially from countries where energy efficiency is currently not a political priority - stressed the crucial role of EU legislation in driving national energy efficiency policies. They mentioned that without EU directives no or nearly no activities would have been carried out in their countries. Especially the (first) EBPD (Directive 2002/91/EC on the energy performance of buildings) was seen by many experts as a milestone, catalysing a new legal framework for buildings.

However, in overall terms, progress in energy efficiency in the last years across Member States was rather modest. Especially in sectors specifically mentioned by the ESD, e.g. energy efficiency in public procurement, the conditions for energy efficiency services, financial instruments for energy savings, market development was very limited according to the experts. Also, the public sector has not taken the exemplary role required by the ESD to a large extent.

EU 27: progress of energy efficiency policies in the last 3 years

- no or very little progress
- a few additional policies
- a range of additional policies
- many additional policies
Many experts noted that policies are often fragmented, they lack focus and stability over time and they are not built upon a clear strategy and vision.

Therefore, a new policy framework which strongly accelerates progress in energy efficiency policies is needed according to the energy efficiency experts. Many stressed the importance of straightforward requirements and strict follow-up up on the implementation. They welcomed the new Energy Efficiency Directive (EED) and expressed their hope that the ensuing policy measures will bring the European Union on track in achieving the 20% energy efficiency target. In times of tight public budgets, smart combinations of legislative, financial and information measures need to be found.

**Improved governance: multi-level, with clearer responsibilities and more staff**

According to the experts, successful energy efficiency policies have to be built upon multi-level governance which integrates the local, the regional, the national and the European levels and uses the strengths of each level.

In a number of countries, experts see the regional and local level as a main driver of energy efficiency - also because the benefits of energy efficiency are easier to communicate to political decision makers locally and regionally. Across Europe, there is an increasing number of regions and local authorities which are willing to make energy efficiency a priority. This is also confirmed by the rising number of signatories of the Covenant of Mayors.

The important role of energy agencies on national, regional and local levels was emphasised by many experts. In many countries, experts regretted the insufficient numbers of regional and local energy agencies.

Another institutional challenge mentioned by a number of experts is that in many Member States, regions and cities, but also on the European level, there is a shortage of staff dealing with energy efficiency. This lack of staff often has an impact on the quality of
transposition of European Directives but even more so on monitoring compliance and enforcement of the legislation.

On Member States level, but also regionally or locally, this is exacerbated by the fact that the energy efficiency dossier is spread among several departments or ministries. Experts mention that often it has been especially hard to interest finance departments in the energy efficiency agenda.

**Progress in energy efficiency in transport is the weakest**

A main message from the survey is the complete lack of comprehensive policies on energy efficiency in transport, including the European level. Even though there are some positive examples in specific sectors and countries, including changes in car taxation in a few Member States, experts criticise the absence of political will to act in this sector in most Member States. They see a lack of a clear strategy for the mobility sector across Europe. Of all end-use sectors, experts see the highest gaps in energy efficiency policies in the transport field.

**Building renovation and how to finance it**

Another key issue raised by the experts was the urgent need for extensive building renovation across the European Union and the related issue of how to finance it. Most EU countries have programmes in this field. However, it is becoming more and more evident that these will not suffice to achieve significantly increased renovation rates.

Many experts believe that the positive economic impact of large-scale building refurbishment is underestimated by political decision makers and they call for a clear long-term strategy (as now foreseen in Article 4 of the EED). Such strategies will hopefully ensure a better continuity of funding programmes and will help to overcome the user/investor problem. Also, up-scaling of building refurbishment will require a strong mobilisation of local actors (authorities, building owners, banks, construction companies etc.).

**Many other barriers than money**

While recognising the importance of improved financing and funding, experts stressed that many other barriers to energy efficiency remain to be addressed - legal, institutional, in the fields of information, awareness raising and training etc.

A simplistic approach - thinking that if an energy efficiency investment is economic and access to capital is available, the investment will be made - will in many cases fail due to other market barriers.
One example for the existence of such non-economic barriers is the failure of most European countries to develop a market for energy performance contracting (EPC). Administrative and legal barriers as well as the lack of information and quality assurance measures prevent its use in the public and the private sectors. However, experts warn that EPC is not the "silver bullet" for all energy efficiency investments but mostly for "low-hanging fruit" (energy efficiency potentials with short pay-back periods).

One instrument to address information barriers are energy advice/energy audit programmes. They were mentioned by many experts as having a crucial role in transforming markets and in overcoming information barriers, especially when implemented in a package with other policy incentives. There are a number of countries which have a long tradition of public-funded, product-independent energy advice through dedicated advice centres, serving households and in some cases SMEs. Among specific energy efficiency policy instruments, it was seen as the most effective in the survey (74 % of the experts agree that it is very or partly effective).

---

**EU 27: degree of effectiveness of different policy instruments**

<table>
<thead>
<tr>
<th>Policy Instrument</th>
<th>Effectiveness</th>
</tr>
</thead>
<tbody>
<tr>
<td>White Certificates</td>
<td>20%</td>
</tr>
<tr>
<td>Voluntary Agreements</td>
<td>40%</td>
</tr>
<tr>
<td>Obligations for energy companies</td>
<td>60%</td>
</tr>
<tr>
<td>Energy Audits</td>
<td>80%</td>
</tr>
<tr>
<td>Qualification, accreditation &amp; certification schemes</td>
<td>80%</td>
</tr>
<tr>
<td>EE Funds</td>
<td>80%</td>
</tr>
<tr>
<td>Smart Metering</td>
<td>80%</td>
</tr>
</tbody>
</table>

- **not effective at all**
- **partly effective**
- **very effective**
- **unknown/ not implemented**
Introduction and objectives

The policy framework

Energy efficiency can make a significant contribution to three key policy priorities of the European Union: climate protection, energy security and the technology leadership of EU industry.

In 2006, the European Union took an new legislative iniative and adopted the Directive on energy end-use efficiency and energy services (Directive 2006/32/EC, in the following called "ESD") as one policy measure to harness the benefits of energy efficiency for the European society. The purpose of this directive is to make the end use of energy more economic and efficient.

According to the ESD, Member State have to adopt and achieve an indicative energy saving target of 9 % by 2016. It sets obligations on national authorities as regards energy savings and energy efficient procurement, and measures to promote energy efficiency and energy services.

The ESD requires Member States to submit three National Energy Efficiency Action Plans (NEEAPs), scheduled for 2007, 2011and 2014. In their NEEAPs, Member States must show how they intend to reach the 9 % indicative energy savings target by 2016 and describe the planned energy efficiency measures. Furthermore, NEEAPs must show how Member States comply with the requirements of the ESD on the "exemplary role of the public sector" and the provision of information and advice to final consumers.

Additionally, in the first NEEAPs (2007), Member States had to set intermediate targets, and the second (2011) and third NEEAP (2014) must show results of the energy efficiency improvements and savings made.

During the finalisation of the survey, the Energy Efficiency Directive was in its adoption phase, setting new requirements for energy efficiency and a new reporting framework. This report offers analysis and guidance on specific areas of weaknesses and strengths in energy efficiency policies in specific Member States and across countries. These results can also be very useful for developing specific actions for the implementation of the Energy Efficiency Directive.

The Energy Efficiency Watch Project 2 (EEW2)

The Energy Efficiency Watch Project 2 (EEW2) aims to facilitate the implementation of the ESD. It is co-funded by the Intelligent Energy Europe programme and coordinated by Eufores. It runs from autumn 2010 to summer 2013 and builds upon the EEW1 project (Sept. 2007 - February 2010, further information about this project at www.energy-efficiency-watch.org).
The EEW2 project activities are grouped around the three main areas:

- activating and consulting networks of relevant actor groups (e.g. regional and local actors, energy efficiency experts, members of parliaments, energy efficiency industries)
- building up knowledge via surveys, questionnaires and policy screening and
- disseminating results (e.g. briefings, conferences, brochures).

The NEEAPs lie in the very heart of the EEW2 project. EEW2 project activities include developing recommendations and advice for the second NEEAPs (based on the results of the EEW1 project) as well as a screening of the second NEEAPs when delivered. Up to 20 events are carried out with the purpose of exchanging good practices, raise awareness and encourage discussion among stakeholders from industry, public administrations, energy agencies, policy makers and other experts. The EEW2 project aims to create an even stronger network with the regions and cities that are of utmost importance for the implementation of energy efficiency policies laid out in the NEEAPs. Therefore, the networks Fedarene, Energy Cities and ECEEE are partners of the project consortium.

The EEW2 survey: the experts perspective on the progress in energy efficiency policies since the first NEEAP

One key activity of the EEW2 project was an extensive survey on the implementation results of the first NEEAPs in the 27 Member States. The aim of the survey was to learn from stakeholders, experts and relevant networks how they see the "real-life" progress in energy efficiency policies and their implementation in their respective country in the past years. It aimed to give voice to their views and profit from their experiences in assessing policy development progress.
In order to get a broad picture, it gathered opinions and experience from a wide range of key actors. Networks and stakeholders were consulted in order to learn about the progress in energy efficiency policy on Member State level since the first NEEAPs in 2007. The aim was to learn how far the implementation of energy efficiency policies has progressed in the opinion of persons with day-to-day work in the energy efficiency field.

The survey consisted of two different elements:

- a quantitative survey, using a questionnaire (655 questionnaires were completed and used to draw conclusions) and
- a qualitative survey, using a interview guideline (3 experts in each Member States were interviewed, in total, 81 experts).

The focus of the questions both in the quantitative and in the qualitative survey was on the progress of energy efficiency policies and their implementation in different sectors since the first NEEAP. More information on the approach and the results of these two surveys can be found in the following chapters and in the annex.

Additionally, the partner networks of the EEW 2 project, Fedarene, Energy Cities and ECEEE, consulted their members and discussed progress (or the lack thereof) from the perspectives of their network members. To complement this stakeholder process, EUFores collected views on the progress from a number of other relevant European energy efficiency networks and NGOs. The main findings of this process are summarised in the following chapters, the network report summaries are found in the Annex.

In total, more than 700 experts from all EU Member States were consulted.

Another element of the Energy Efficiency Watch project is a screening of the texts of the NEEAps, carried out by the project partners Wuppertal Institute and Ecofys, giving another perspective on the ESD implementation process: whereas the survey focus on the perception of the actual progress in the development and implementation of energy efficiency policies, the screening analyses the texts of NEEAPs itself.
Approach and methodology of the survey

The approaches chosen for the stakeholder survey aimed at reflecting the variety of experiences of a broad range of actors spanning 27 countries with vast differences both in energy efficiency policy traditions as well as in specific progress in the past years.

Stakeholders consulted came from the national, regional and local levels (administrations and energy agencies), from the research and consultancy community as well as from NGOs, professional associations and businesses.

The following methods were chosen to collect inputs:

- the quantitative survey, using a relatively short questionnaire, aimed at reaching a large number of stakeholder and providing an insight into overall trends, mostly in which sectors was progress made and which sectors not

- the qualitative survey (interviewing carefully selected energy efficiency experts in each Member State using an interview guideline) had the objective of getting a deeper understanding of specific reasons for the lack of progress as well as collecting good practice examples of energy efficiency policy implementation

- the inputs from the members of the 3 partner networks were collected during dedicated discussions among network members, held at the occasion of other network meetings. This format allowed for comparing the perspectives from different countries and drawing conclusions from the interactions.

- interviews were made with representatives of other major European energy efficiency networks and NGOs to collect sector-specific inputs based on an interview guideline.

<table>
<thead>
<tr>
<th>Elements of the EEW survey</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Quantitative Survey</strong></td>
</tr>
<tr>
<td>- quantitative information on energy efficiency progress, &quot;snapshot picture&quot;</td>
</tr>
<tr>
<td>- questionnaires (655 completed online or during main European conferences)</td>
</tr>
<tr>
<td><strong>Qualitative Survey</strong></td>
</tr>
<tr>
<td>- qualitative information on energy efficiency progress</td>
</tr>
<tr>
<td>- oral interviews with 3 experts per Member State based on an interview guideline</td>
</tr>
<tr>
<td><strong>Network Reports by Fedarene, Energy Cities, ECEEE and EUFORES (external network partners)</strong></td>
</tr>
<tr>
<td>- network opinions on progress of energy efficiency progress and ESD implementation</td>
</tr>
<tr>
<td>- network meetings</td>
</tr>
<tr>
<td>- gathering inputs from major European energy efficiency networks and NGOs</td>
</tr>
</tbody>
</table>
A meeting among the project partners was held in summer 2012 to discuss the main results from these different approaches and to agree on conclusions.

Quantitative survey

In co-operation with the project partners and the University of Linz (Institute for Environmental Management in Companies and Regions) a relatively short questionnaire was developed and tested. It aimed at collecting quantitative data on the progress in energy efficiency policies and their implementation in each Member State since the adoption of the first NEEAP. This method allowed to reach a large number of stakeholders.

The questionnaire was grouped around the following main topics (a copy of the questionnaire can be found in the annex):

- overall ambition of the energy policy of the addressed Member State, the progress in the last years, the national energy savings targets
- policy fields and instruments especially addressed by the ESD (procurement, energy efficiency services, financial instruments, the availability of energy efficiency information, white certificates, energy audits, metering etc.)
- most important gaps in national energy efficiency policies as well as barriers
- energy efficiency policy measures to be introduced at European level as well as the overall impacts of energy efficiency policies

In order to be able to reach out to a large number of stakeholders, a two-fold approach was taken:

- conferences: experts were invited to answer the questionnaires at the occasion of major energy efficiency events, e.g. the World Sustainable Energy Days 2011 (held in Wels/Austria in March 2011), the EUSEW (European Union Sustainable Energy Week, held in Brussels in April 2011), the ECEEE summer study (held in Presqu’île de Giens/France in June 2011)
- online completion: the questionnaire was made available through the website of Eufores. The EEW partners informed and motivated experts from their networks and through partner energy efficiency networks in all Member States to participate in the survey.

Between March and November 2011, in total 655 completed questionnaires were collected.
Completed questionnaires by countries

<table>
<thead>
<tr>
<th>Country</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>51</td>
</tr>
<tr>
<td>Belgium</td>
<td>50</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>9</td>
</tr>
<tr>
<td>Cyprus</td>
<td>8</td>
</tr>
<tr>
<td>Czech Rep.</td>
<td>11</td>
</tr>
<tr>
<td>Denmark</td>
<td>15</td>
</tr>
<tr>
<td>Estonia</td>
<td>11</td>
</tr>
<tr>
<td>Finland</td>
<td>16</td>
</tr>
<tr>
<td>France</td>
<td>42</td>
</tr>
<tr>
<td>Germany</td>
<td>63</td>
</tr>
<tr>
<td>Greece</td>
<td>39</td>
</tr>
<tr>
<td>Hungary</td>
<td>13</td>
</tr>
<tr>
<td>Ireland</td>
<td>13</td>
</tr>
<tr>
<td>Italy</td>
<td>61</td>
</tr>
<tr>
<td>Latvia</td>
<td>17</td>
</tr>
<tr>
<td>Lithuania</td>
<td>13</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>7</td>
</tr>
<tr>
<td>Malta</td>
<td>7</td>
</tr>
<tr>
<td>NL</td>
<td>19</td>
</tr>
<tr>
<td>Poland</td>
<td>22</td>
</tr>
<tr>
<td>Portugal</td>
<td>21</td>
</tr>
<tr>
<td>Romania</td>
<td>21</td>
</tr>
<tr>
<td>Slovak Rep.</td>
<td>14</td>
</tr>
<tr>
<td>Slovenia</td>
<td>12</td>
</tr>
<tr>
<td>Spain</td>
<td>31</td>
</tr>
<tr>
<td>Sweden</td>
<td>34</td>
</tr>
<tr>
<td>UK</td>
<td>35</td>
</tr>
<tr>
<td>Total</td>
<td>655</td>
</tr>
</tbody>
</table>

The varying number of participants across Member States had to do with the presence of experts in the international events and the partner networks, language issues (the questionnaire was in English) as well as the size of the country (the lowest participation came from the 3 smallest EU countries).

Participants in the survey came from the business sector (25 %), from universities and research organisations (23 %), from the public sector (22 %), from energy agencies (12 %) and from other sectors (18 %).
Qualitative survey

Complementing the quantitative data, a qualitative survey was carried out. It aimed at developing a deeper understanding of specific reasons for the lack of progress as well as collecting good practice examples of energy efficiency policy implementation.

In order to achieve best possible results, the approach to this survey was developed jointly by the partners.

As a first step, an interview guideline was developed and tested. It focused on critical issues as well as positive developments in different energy efficiency sectors (public, residential, service, industry and transport sectors).

A special emphasis was put on carefully selecting the interviewees aiming for a balance of different perspectives in each Member State. First, a list was collected by the project partners which included about 200 experts across all 27 Member states. The names came from the professional networks of the project partners, with an emphasis on experts from the participating networks. Also, experts involved in the Odysee-Mure project were included. All experts included in the list were deemed to have a good overview of the energy efficiency policies in their respective countries as well as having worked in energy efficiency for a number of years and having gained a good insight into policy development and implementation.

As a next step, the experts were grouped in different categories (experts working on local, regional and national level, in research and consulting, in professional associations and NGOs).

In a partner meeting, the experts to be interviewed were jointly selected, with the aim to ensure a high-level of knowledge and a balanced representation of different actors in each Member State. Also a reserve list was drawn up in case the experts selected were not available for an interview.

Each of the three involved networks (Fedarene, Energy Cities and ECEEE) took over 9 countries. An introductory eMail was sent out by Eufores informing the potential interviewees of the importance of participating. This was followed by eMails and phone calls from the respective network partner to set up a date for a phone interview.

In overall terms - keeping in mind how many surveys are carried out - the response was rather positive and many of the experts included in the first list were interviewed (without needed to resort to the reserve list). However, in many cases, it took a number of contacts to establish a suitable date. In some cases, where experts turned out to be unavailable or not willing to participate, experts from the reserve list were selected.

After the phone interviews were carried out (which generally took between 45 and 90 minutes), a transcript was sent to the interviewee allowing him/her to clear up possible
misunderstandings as well as offering the option to provide additional information. The interviews were carried out between April and September 2012.

The interviewers summarised the results from the 3 interviews in each Member State in a short "country summary", these are included in the annex.

In order to collect real insights and opinions, the answers of the interviewees are treated confidentially which is a standard approach in surveys. Their names are not disclosed - due to the small number of interviewees per country, reading through the country summaries might allow making a direct connection between certain statements and the persons involved.

In summer, a partner meeting was held in which the results from the quantitative and the qualitative survey were brought together, discussed and double-checked. Common conclusions for each country were agreed by the partners (which can be found in the following chapter). At this meeting, these results were also compared to the initial results of the NEEAP screenings carried out as another activities of the Energy Efficiency Watch project.

The project team agreed that the know-how available "on the ground" was very valuable and many experts - also due the projects’ diligent approach - were willing to share their knowledge and insights. The members of the project team were impressed by the commitment and also very good work carried out in some countries despite very challenging policy and financial framework conditions.
Survey Results

The following chapter summarises the main results of the survey, first on a country by country basis and then across the Member States.

As with any survey, the results in this report present the perceptions of the interviewees and their opinions on energy efficiency policies in their own countries. This report is not an analysis of the absolute levels of energy efficiency in each Member State, using common measurement indicators, but the views on the progress in energy efficiency policies in each Member State of the experts in that specific country. Therefore, these results are not views of the authors of this study.

The focus of the survey was to get an impression on the progress of energy efficiency policies since the first NEEAPs and not to establish a ranking of absolute levels of energy policy developments.

Surveys are always "snapshot pictures" which are influenced by current events. The quantitative survey was carried between March and November 2011 and the qualitative survey between April and September 2012. The impact of the economic crisis on reported policy developments is to be seen in this timing context.

This timeframe also explains why several questions of the quantitative survey look back 3 years - this was the timeframe between the start of the survey and the presentation of the first NEEAPs.

Survey Results by Member State

The following country specific analysis combines the results of the quantitative and the qualitative survey (countries in alphabetical order). It highlights issues that stood out either positively and negatively from the comparison across countries (quantitative survey). From the qualitative survey, those issues are presented here that were mentioned by more than one of the experts in the oral interviews. The annex includes country summaries with more comprehensive results per country.
Austria

Austria is among the Member States that has made medium progress in energy efficiency policies since the first NEEAPs (country progress indicator: 13 out of 27 - see page 81). Opinions are divided on the ambition of energy efficiency policies in Austria: half of the experts see policies as ambitious whereas the other half believes that policy ambitions are rather low. Two thirds think that in the last 3 years, only a few additional policies were introduced or there was no or little progress. Nearly 50 % believe that the energy efficiency target will not be achieved.

Most critical issues mentioned by the experts include the lack of a transport policy which takes energy efficiency into account and the lack of binding savings targets. In general, more policies are needed to reduce consumption.

On the positive side, the experts mention that the regions have been quite active in recent years, especially in setting ambitious energy efficiency standards for new residential buildings and also in their housing programmes.

In the institutional framework, regional actors are seen as rather active, cooperation among regional and national actors could be improved.

---

**Austria: overall ambition of the energy efficiency policies**

- Generally, rather low: 37%
- Ambitious in a few sectors, less so in most others: 6%
- Ambitious in a range of sectors, less so in a few others: 14%
- Generally, rather high: 43%

**Austria: progress of energy efficiency policies in the last 3 years**

- No or very little progress: 18%
- A few additional policies: 33%
- A range of additional policies: 47%
- Many additional policies: 2%
According to the experts, in the public sector, even though some progress has been made in building refurbishment, there is a lack of funding and also of an obligation to renovate buildings.

In the residential sector, the increasing electricity consumption is seen as a main challenge.

In the service and the industry sector, experts observe a lack of obligations for companies to become active in reducing their energy consumption.

The transport sector is seen as the area with the most important policy gap in energy efficiency policies (second highest gap across sectors and countries). Among others, the lower fuel taxes compared to neighbouring countries and the lack of good public transport (outside the cities and main transport connection lines) were mentioned.
Among specific energy efficiency policy instruments, energy audits are rather popular among the Austrian energy experts: 92 % consider them as at least partly effective, among these nearly 40 % as very effective (second most positive indicator of all countries). On the other side, 53 % consider voluntary agreements as not effective (most negative indicator of all countries).

Belgium

According to the Belgian experts, Belgium is among the countries that has made medium-to-low progress in energy efficiency policies since the first NEEAP (country progress indicator: 18 out of 27 - see page 81). 70 % of the experts think that energy policies are only ambitious in a few sectors and less so in most others or generally rather low. Also around 70 % believe that only a few additional policies were introduced (or even no progress was made) in the last years. More than 40 % think that the national energy savings target will not be achieved.

A main challenge observed by the experts is the financing of the energy efficiency programmes. They are concerned that these programmes see increasing budgetary constraints and uncertainties from year to year.

Positive issues mentioned include a tax reduction programme on national level and incentives provided by the regions as well as some voluntary agreement programmes in industry.
In the public sector, the level of activities differs between the three Belgian regions according to the experts, financing is a generally seen as a challenge.

In the residential sector, experts report that all three regions offer a range of financial incentives for energy efficiency investments.

In the service and industry sector, there are voluntary branch agreements for industry as well as some incentives given by regions for energy efficiency and renewable energy.

In the transport sector, experts call for more tax incentives to promote energy efficiency.

Regarding specific energy efficiency policies, the Belgian experts see qualification, accreditation and certification schemes relatively as the most effective (55 % see them as very or as partly effective).
Bulgaria is among the Member States that has made medium progress in energy efficiency policies since the first NEEAPs (country progress indicator: 16 out of 27 - see page 81). The majority of experts considers the overall ambition of the energy efficiency as rather low (one of the lowest indicators across Europe). A few additional policies were introduced in the last 3 years.

Opinions are divided on the achievement of the energy efficiency target: 40% believe that energy efficiency target will not be achieved, 40% believe that energy efficiency target is likely to be achieved.

Experts are concerned that energy efficiency does not have sufficient political priority on national level. They see a high need for building refurbishment and insufficient funding for this challenge.

They comment positively that building legislation has changed towards energy efficiency due to European Directives and that some funding programmes are available (partly from European funds).
In the public sector, some municipalities are implementing energy efficiency projects, in general, according to the experts, there is a lack of resources, skills and partly also interest.

In the residential sector, experts are concerned about the lack of an overall strategy how to tackle energy efficiency in this sector: they ask for a combination of legislation, funding programmes and information measures - all were considered to currently be insufficient.

For the service and industry sector, a need for modernisation was seen.

The transport sector, the need of improved public transport was mentioned as well as for better mobility management.
In terms of specific energy efficiency instruments, energy audits (nearly 80% think they are at least partly effective) and energy efficiency funds (67% partly or very effective) are rated as the most effective policy instruments.

![Diagram of Bulgaria: degree of effectiveness of different policy instruments]

Cyprus

According to the Cypriot experts, in comparison to other EU Member States, Cyprus is among the countries that has made relatively little progress in energy efficiency policies since the first NEEAP (country progress indicator: 22 out of 27 - see page 81). Experts consider the ambition of energy efficiency policies as generally rather low (62% see as "generally, rather low", the lowest value all countries). However, opinions are divided on the actual progress in the last 3 years: nearly 40% see a range or even many additional policies and also nearly 40% see no or very little progress.

Main challenges reported are energy efficiency in buildings and the effective implementation of the (first) EPBD (Directive 2002/91/EC on the energy performance of buildings). Also the development of public transport systems is seen as a key issue.

However, experts recognise that - compared to a few years ago - policies in buildings and in transport are starting to develop, both in legislation and in funding.

Regarding the institutional framework, experts are concerned by the lack of ambition of the relevant ministries. Positive comments were made about the activities of the Cyprus Energy Agency in promoting energy efficiency.
In the public sector, experts were commenting on the lack of a comprehensive strategy to promote energy efficiency. However, municipalities are getting more active in energy efficiency.

Energy efficiency in the existing housing stock is considered to be rather low. Support programmes exist, however, they have seen interruptions due to lack of sufficient funding. Generally, experts call for a more reliable and long-term framework for investments in the residential sector. They observe that support programmes in general put much higher priorities on renewable energy sources than energy efficiency.

Increasing prices had a positive impact on energy efficiency in the service and industry sector.
Historically, the offer of public transport was extremely limited. Experts see that this is slowly starting to change, however, there is a clear need for increasing performance and consumer information.

Very differently from many other countries, 50% consider energy audits as not effective (most negative indicator of all countries - EU average 15%) and similarly, 50% consider qualification, accreditation & certification as not effective (again most negative indicator of all countries - EU average 19%).

### Cyprus: degree of effectiveness of different policy instruments

<table>
<thead>
<tr>
<th>Policy Instrument</th>
<th>0%</th>
<th>20%</th>
<th>40%</th>
<th>60%</th>
<th>80%</th>
<th>100%</th>
</tr>
</thead>
<tbody>
<tr>
<td>White Certificates</td>
<td>20</td>
<td>38</td>
<td>38</td>
<td>50</td>
<td>50</td>
<td>13</td>
</tr>
<tr>
<td>Voluntary Agreements</td>
<td>62</td>
<td>25</td>
<td>25</td>
<td>38</td>
<td>38</td>
<td>12</td>
</tr>
<tr>
<td>Obligations for energy companies</td>
<td>37</td>
<td>37</td>
<td>37</td>
<td>50</td>
<td>50</td>
<td>13</td>
</tr>
<tr>
<td>Energy Audits</td>
<td>12</td>
<td>12</td>
<td>12</td>
<td>12</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>Qualification, accreditation &amp; certification schemes</td>
<td>12</td>
<td>12</td>
<td>12</td>
<td>12</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>EE Funds</td>
<td>12</td>
<td>12</td>
<td>12</td>
<td>12</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>Smart Metering</td>
<td>75</td>
<td>75</td>
<td>75</td>
<td>75</td>
<td>75</td>
<td>75</td>
</tr>
</tbody>
</table>

#### Czech Republic

According to the Czech experts, the Czech Republic is among the countries that has made relatively little progress in energy efficiency policies since the first NEEAP (country progress indicator: 25 out of 27 - see page 81). Only a few additional policies were introduced.

They consider the ambition of the energy efficiency policies to be rather low (the lowest indicator of all countries). Critical issues include the lack of leadership and targets and that energy efficiency is perceived as a burden rather as an opportunity by many actors in the public sector. There is no national energy agency and also only a small number of regional and local energy agencies. There is significant concern regarding the continuation of funding programmes.
Progress was reported in energy contracting and in energy efficiency in buildings (also due to funding programmes). Experts observed that the citizens' awareness in energy and climate issues is increasing.

In the field of public buildings, an inter-ministerial committee for energy efficiency was created to monitor energy consumption of selected public buildings and improve their performance. Experts mention that the number of local authorities willing to take leadership in sustainable energy issues is growing. However, only a few cities have employed an energy manager and the number of comprehensive renovation projects of public buildings is still very limited.

The "Green for Savings Programme" and the programme "Panel" triggered significant investments in residential buildings, however, there is strong concern regarding future
funding. In the industry sector, experts report on the availability of funds for energy efficiency. Energy contracting is becoming popular and the number of good examples has multiplied.

Nevertheless, financing of energy efficiency investment is perceived as the key problem - 80% of all interviewees see it as the most important barrier (this is the highest value across all countries and all barriers).

Energy advice and audits are considered as an important instrument: The national government provides funding support to energy advice centers across the country and related training activities. The experts also see this instrument positively among different specific energy policy instruments: 90% consider energy audits at least as partly effective (third most positive indicator of all countries).
Denmark

According to the Danish experts, Denmark is the country where energy efficiency policies have progressed very well since the first NEEAP (country progress indicator: 2 out of 27 - see page 81).

More than 50 % believe that the overall ambition of the energy efficiency policy is generally rather high (highest indicator of all countries).

Opinions on the progress in the last 3 years are more mixed: a third sees many additional policies, another third only a few additional policies.

Nearly 80 % believe that the energy efficiency target is very likely to be achieved (second highest indicator of all countries)

Experts agree that the biggest challenge for Danish policy lies in energy efficiency in the transport sector.

On the other hand, a range of positive developments was mentioned, including building codes, building labelling and energy efficiency in electric appliances.
In the public sector, according to the experts, a range of actions to promote energy efficiency are implemented, especially on municipal level.

Also in the residential sector, several instruments are available to support energy efficiency, including loans for building renovation. In the service and industry sector, voluntary agreements are in place.

Experts see very significant gaps in energy efficiency policies in the transport sector (the highest gap across sectors and countries). Programmes to promote electric cars were mentioned.

The Danish energy experts have a very positive attitude towards a range of specific energy efficiency policies: 100 % consider obligations for energy efficiency companies at least as partly effective (most positive indicator of all countries), 94 % consider energy audits at least as partly effective (most positive indicator of all countries) and 73 % consider qualification, accreditation & certification at least as partly effective (third most positive indicator of all countries).
In the opinion of the Estonian experts, Estonia is among the EU countries that has made good progress in energy efficiency policies since the NEEAP 1 (country progress indicator: 3 out of 27 - see page 81). 82% of the experts say that a range of or many additional policies was introduced (highest progress in all EU member states). 55% believe that the national energy savings target is likely to be achieved (third highest indicator of all countries).

Critical issues include the lack of a coherent framework for energy efficiency, binding targets and financing and funding programmes. A lack of capacity in the public sectors is perceived by the experts, also as there is no national energy agency to support policy development, implementation and analysis. Also municipalities suffer from the lack of staff and financial resources.

Positive developments reported include the increased availability of funds (especially from emission trading), more businesses active in energy efficiency sector (especially building renovation and energy services) and more use of CHP.
Estonia suffers from a major financing problem. According to the experts, the general economic conditions are not conducive, the government has little funding for energy efficiency investments. However, there is funding available from the sale of emission rights (AAUs) under the Kyoto Protocol which provided the means to develop a successful grant schemes for the buildings sector (refurbishment of residential buildings but recently also for the public sector). Programmes are managed by Kredex, a financing institution.

Due to the availability of funds, experts see significant progress in financial instruments. Also, compared to previous eras, the availability of energy efficiency information has very much improved.

In the service sector, a lack of programmes to promote energy efficiency was reported. 40% of the experts see this sector as the one with the most important energy efficiency
policy gap (Estonia has the highest value of all EU countries in this sector). Many office buildings owners have, nevertheless, started to look into possibilities to act.

Across sectors (residential, industry & service), experts observed a still insufficient understanding of cost-effective solutions for energy efficiency potential for improvements.

Present car taxation is considered an important problem by the experts as only fuel is taxed (and not the purchase of vehicles) which induces consumers to purchase large, inefficient vehicles.

Among specific policy instruments, the Estonian experts rate the effectiveness of energy audits, energy efficiency funds and qualification, accreditation and certification schemes as rather high.
According to the Finish experts, Finland is the country where energy efficiency policies have progressed most since the first NEEAP (country progress indicator: 1 out of 27 - see page 81). Nearly 70% believe that energy policies are at least ambitious in a range of sectors. More than 80% state that a range or many new additional policies were introduced in the last 3 years (second highest indicator of all countries). 66% think that the energy efficiency target is likely to be achieved (third highest indicator of all countries).

A main concern expressed by the Finish experts was the implementation of the Directive on the energy performance of buildings. Also there is still a lack of awareness among consumers. According to the experts, too many municipalities and SMEs lack commitment and funding.

Among the positive developments mentioned are the expansion of the energy advice and audits (for municipalities and businesses). Also the voluntary energy efficiency agreements in commerce and industry expanded in terms of sectors and in terms of companies participating. There are a number of programmes providing financial support to energy efficiency.

As regards the institutional framework, the cooperation among ministries has improved and also energy agencies - Motiva on national level as well as regional and local ones - are important actors.
In the public sector, understanding and motivation among municipalities is seen as a critical issue. Also, a plan to decrease the number of municipalities took a lot of attention recently away from issues such as energy efficiency.

In the residential sector, a lack of guidance and advice to home owners was stated as one of the main challenges.

In the industrial sector, voluntary agreements are reported as having been very successful (covering a very high percentage of the Finnish industrial energy use) and there are complementary measures to help participating companies. However, getting SMEs involved has been very challenging according to the experts.

The survey results on specific policy instruments differ from other countries: 80 % consider smart metering at least as partly effective (most positive indicator of all countries - the EU average being 35 %). 56 % see obligations for energy efficiency companies at least as partly effective but also 31 % see them as "not effective at all". Very popular are also energy audits (79 % partly or very effective).
France is among the Member States that has made comparatively medium progress in energy efficiency policies since the first NEEAPs (country progress indicator: 10 out of 27 - see page 81).

Opinions are divided on the ambition of energy efficiency policies: half of the experts see policies as ambitious whereas the other half believes that policy ambitions are rather low. Progress in the last 3 years was seen relatively positively: 55 % think that a range or even many additional policies were introduced.

Also the opinions on achieving the energy efficiency target differ: about a third think the target will probably or certainly be achieved, another third believes that this will not be case.

Experts are concerned that the ambitious targets for building renovation will not be reached and they state that it is easier to find political support for renewable energies than for energy efficiency (renewable energies are seen as more attractive from a job creation and economic development perspective). The economic crises has also lead to a reduction in incentive programmes.

On the positive side, the "Grenelle de l'Environnement" in 2007 (a multi-party debate bringing together governmental and non-governmental actors) was seen as having an important role in triggering new policies and developing a more structured approach. The
experts mention, for example, significant allocation of public funding (compared to previous periods) and new legislation in the building sector. Also a system of energy efficiency certificates was created.

In the public sector, a number of activities were mentioned, including energy audits and public private partnerships for financing renovation of public buildings. Also the legislation on energy contracting was modified.

In the residential sector, a tax credit instrument, enabled by the energy efficiency certificates, was described as effective and very popular. However, experts expressed concern that it was not sufficiently promoting deep renovation (for example, significantly more efforts went into window replacement than insulating buildings). Also a soft loan programme was established and energy advice programmes were set up to guide energy efficiency investments.
According to the experts, the energy efficiency certificates also played a role in the service sector. In the industry sector, energy management and audit programmes were carried out.

In the transport sector, experts mentioned actions to improve public transport, especially on local and regional level.

In terms of specific energy policies instruments, energy audits are very well known and popular among the French experts (81 % consider energy audits at least as partly effective effective). 63 % consider White Certificates at least as partly effective (which is most positive indicator of all countries).

<table>
<thead>
<tr>
<th>White Certificates</th>
<th>Voluntary Agreements</th>
<th>Obligations for energy companies</th>
<th>Energy Audits</th>
<th>Qualification, accreditation &amp; certification schemes</th>
<th>EE Funds</th>
<th>Smart Metering</th>
</tr>
</thead>
<tbody>
<tr>
<td>53</td>
<td>29</td>
<td>17</td>
<td>17</td>
<td>20</td>
<td>15</td>
<td>30</td>
</tr>
<tr>
<td>10</td>
<td>52</td>
<td>50</td>
<td>62</td>
<td>63</td>
<td>39</td>
<td>28</td>
</tr>
<tr>
<td>37</td>
<td>19</td>
<td>21</td>
<td>19</td>
<td>7</td>
<td>10</td>
<td>10</td>
</tr>
</tbody>
</table>

France: degree of effectiveness of different policy instruments

Germany

According to the German experts, Germany is among the countries where energy efficiency policies has seen good-to-medium progress since the first NEEAP (country progress indicator: 8 out of 27 - see page 81). They see a relatively high overall ambition of energy efficiency policies - 61 % consider it at least ambitious in a range of sectors.

The interviewees were divided regarding the introduction of new policies: more than 40 % saw a range or many additional policies, 52 % only a few additional policies. Accordingly, opinions also differ on the achievement of the energy savings target: about 40 % think that
the target will certainly or probably be achieved, about 30 % believe that the target will not be achieved.

Critical issues observed by the experts include the lack of progress in the efficiency of electricity use, the transport sector, the lack of binding targets and that there is still a dominance of "supply-side" policies. They also reported that in the institutional sector, conflicts on energy efficiency issues among national ministries exist.

Positive developments reported include the funding programmes in the building sector ("KfW" programmes, about 500 million Euro per year), the energy efficiency programmes for the industry sector and for municipalities. They also state that energy efficiency has become a key pillar of Germany energy strategy.

In the public sector, according to the experts, many municipalities have introduced effective energy management, have adopted passive standards for new buildings and
make use of green procurement. A roadmap to improve state owned buildings exists. However, significantly more public bodies could make use of contracting.

In the residential sector, the funding programmes (KfW) are seen as very beneficial, especially for deep renovation and the construction of passive buildings. A change in the tenancy law is expected to have positive impacts on building renovation. However, the interviewees reported that the (first) EPBD (Directive 2002/91/EC on the energy performance of buildings) had not been well transposed as the energy certification does show effects on the market (impacting real estate prices). Legislation regarding energy efficiency in the residential sector is seen as positive, however, there are deficits in the implementation. A critical issue is also that no funding programmes exist to address electricity efficiency in households.

Also in the service sector, according to the experts, electricity efficiency remains an important challenge and more use should be made of contracting. In the industry sector, there seems to be a lack of coherent policies and not many benefits are seen from the ETS. Positive developments include existing funding programmes for energy audits as well as the creation of local specialised networks of companies for energy efficiency.

In the transport sector, the dominance of cars and a lack of political will to act in this field was reported, including the fact that still no general speed limits exists for motorways. Critical issues observed include the energy labelling for cars ("favouring" larger cars) and the investment focus on large, controversial projects (such as "Stuttgart 21"). Positive is a rather well developed public transport and that a road charge for trucks was introduced.

Among specific instruments, energy audits (82 % partly or very effective) and qualification, accreditation and certification schemes (71 % partly or very effective) are seen as the most effective policy instruments.
According to the Greek experts, Greece is among the countries that has made medium progress in energy efficiency policies since the first NEEAP (country progress indicator: 16 out of 27 - see page 81). Opinions among the experts are divided: about half see good progress (a range or even many additional policies), the other half sees little or no progress. 45 % believe that the energy savings target will not be achieved.

The experts observe that the economic crisis - with the related reduction in services and industries as well as a need for cost reduction - leads to a decrease in energy consumption. However, finding investors in the current climate is very difficult. Also, more use is made of public transport. There is still a significant dependency on fossil fuels which needs to be addressed by energy efficiency and renewable energy measures.

In the institutional framework for energy efficiency, CRES, the national energy agency, has seen important budget cuts.
In the public sector, funding for demonstration projects exists, including educational buildings and energy contracting. However, the survey showed that the public sector is perceived as the most important gap in energy efficiency policies (44% see this sector as the largest gaps, compared to 15% in the EU average).

Experts report that in the residential sector, strict regulations are in place for new buildings which seems to be well received. Also a funding programme for building refurbishment was set up.

The public transport sector has seen some incentives as well as the construction of bike lanes.

Among specific energy efficiency policy instruments energy audits and energy efficiency funds are seen as the most effective.
According to the Hungarian experts, Hungary is among the countries that has made relatively little progress in energy efficiency policies since the first NEEAP (country progress indicator: 20 out of 27 - see page 81). 38% think that there was no or very little progress in the last 3 years (together with Cyprus, the highest percentage among Member States).

Experts comment positively on the explicit formal recognition of the importance of energy efficiency in policy documents. However, too few actual policies in terms of legislation or funding programmes are introduced. A lack of longer-term stable policies was observed which would be necessary to attract investment. Concern was expressed on the investment needs in the building sector and the lack of adequate funding schemes.

42% believe that the energy savings target will be achieved but it will not lead to a lot of additional savings.

In the institutional framework, experts observe a lack of communication and cooperation between the national ministries as energy efficiency competencies are split among three ministries.
In the public sector, according to the experts there is a lack of dedicated programmes and data availability as well as some uncertainty on the regulatory environment. In the residential sector, funds for an investment programme were reported to have been depleted within a very short period and so far, no new calls were made. Experts are concerned about the lack of a longer term policy and financing framework. Also, current construction standards were considered to be inadequate.

In the industry sector, the increases in energy prices seem to drive energy efficiency investments.

The transport sector is seen as one of the most problematic sectors - according to the interviewees due to the lack of respective policies and the challenges in modernising the infrastructure for public transport.
Schemes for qualification, accreditation and certification (69 % partly or very effective), energy efficiency funds (69 % partly or very effective) as well as energy audits (69 % partly or very effective) are seen as the most effective instruments.

<table>
<thead>
<tr>
<th>Hungary: degree of effectiveness of different policy instruments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>White Certificates</strong></td>
</tr>
<tr>
<td>8</td>
</tr>
<tr>
<td><strong>Voluntary Agreements</strong></td>
</tr>
<tr>
<td>31</td>
</tr>
<tr>
<td><strong>Obligations for energy companies</strong></td>
</tr>
<tr>
<td>33</td>
</tr>
<tr>
<td><strong>Energy Audits</strong></td>
</tr>
<tr>
<td>15</td>
</tr>
<tr>
<td><strong>Qualification, accreditation &amp; certification schemes</strong></td>
</tr>
<tr>
<td>23</td>
</tr>
<tr>
<td><strong>EE Funds</strong></td>
</tr>
<tr>
<td>81</td>
</tr>
<tr>
<td><strong>Smart Metering</strong></td>
</tr>
<tr>
<td>8</td>
</tr>
</tbody>
</table>

Ireland

Ireland is among the Member States that has made medium progress in energy efficiency policies since the NEEAPs (country progress indicator: 11 out of 27 - see page 81). A range of new policies initiatives was introduced. However, more than 60 % of the interviewees believe that the energy savings target will not be achieved (this is among the highest values of all Member States).

Significant progress is reported in building legislation and car taxation. Critical issues include the lack of binding targets, of financing and of sufficient analysis to guide policy making. A need for improved dialogue between local and national government was stated.
Currently, the financial crises is affecting energy efficiency policy. The political focus on energy efficiency seemed to be dwindling. Experts report budget cuts and that little progress is made in developing and introducing financial instruments for energy savings (50 % see no progress in this field which is among the lowest progress indicator of all EU countries).

The budget reduction has also affected the capacity to support market development and to implement and enforce laws.

However, the change in car taxation in 2008 is deemed to be a great success, also compared to many other European countries. The new system has moved away from assessing vehicles based on engine size to one that is based solely on the CO₂ emissions per kilometre. This provided a strong encouragement to people to buy smaller and more efficient cars: between 2007 and 2011 the CO₂ emission dropped from 164 g/km to 133 g/km.
The feedback on the building sector gives a mixed picture: building regulations are perceived to be much improved as is the building certification and rating. There is good capacity in terms of professionals for renovation and other energy efficiency activities. However, in the current economic, there is a risk that specialised companies go out of business. The national retrofit programme for residential buildings was recently extended also to commercial and public buildings. The programme is now switching from grant scheme to supplier obligations. Concern was expressed by the experts whether the new mechanism will deliver. For public buildings, experts missed a specific strategy as well as dedicated funding.

In terms of specific policy instruments, energy audits are rated to be the most effective (77% see them as partly or very effective), followed by energy efficiency funds.

![Ireland: degree of effectiveness of different policy instruments](image)

According to the Italian experts, Italy is the country that has made the least progress among Member States since first NEEAP (country progress indicator: 27 out of 27 - see page 81). More than 50 % consider the ambition of energy efficiency policy generally rather low. According to the majority of the experts, only a few additional policies were introduced. Nearly 50 % believe that the energy savings target will not be achieved.

Critical issues mentioned include the lack of mid- and long-term energy efficiency strategies, the lack of political commitment and the manner European Directives are
implemented. Positive developments mentioned include White Certificates, tax deductions for energy efficiency measures and the Kyoto fund which provides low interest loans.

In the public sector, many municipalities joined the Covenant of Mayors. In the residential sector, there are several support instruments in place. Experts consider more attention should be given to energy efficiency in the service sector.

ESCOs play an important role in the market due to the system of White Certificates.

In the transport sector, experts observe a lack of strategic planning as well as concrete measures on national level. A range of municipalities are active in promoting sustainable transport initiatives.
Among specific energy policy instruments, qualification, accreditation and certification schemes are seen as most effective. 57% consider White Certificates at least as partly effective (second most positive indicator of all countries).

Latvia

Latvia is among the Member States that has made medium progress in energy efficiency policies since the NEEAPs (country progress indicator: 12 out of 27 - see page 81). Opinions on the progress in energy efficiency are divided: more than 40% consider the progress as relatively good where nearly 60% see only a bit or no progress.

And also more than 40% of the interviewees believe that the energy savings target will not be achieved.

The building sector is seen as the most critical sector in terms of energy efficiency policies, especially funding of energy efficiency in the residential buildings and the quality of building efficiency measures. Also, the implementation of the EPBD, the European Buildings Directive, is reported to be very slow.

On the positive side, experts report that municipalities have become much more active in energy efficiency and taken concrete actions. Awareness both among consumers and stakeholders on energy efficiency issues has increased. Through various channels some limited funds are available for energy efficiency measures.
Experts report that in the residential sector, Latvia is faced with a high percentage of multi-apartment buildings in need of refurbishment. As most apartments are owned by the occupants, solid majorities among the owners are needed for positive decision to implement energy efficiency measures, these are usually hard to come by.

Latvia has a highly centralised heating sector with high costs for district heating. Many residential blocks have large unpaid bills. In Riga, for example, the district heating system is owned by the city where the lack of the cash flow from the unpaid heating bills makes it harder for the city to invest in efficiency.

In the service and industry sector, a lack of awareness on energy efficiency and the saving potentials was reported. Energy management schemes are to be established, but the process is seen as very slow.
In the transport sector, modernising and optimising the systems is the main challenge.

Among specific policy measures, energy audits (88 % partly or very effective) are seen the most effective policy instrument, followed by qualification, accreditation and certification schemes (56 % partly or very effective).

Lithuania

According to the Lithuanian experts, Lithuania is among the countries that has made medium-to-low progress in energy efficiency policies since the first NEEAP (country progress indicator: 18 out of 27 - see page 81). More than half of the experts think that energy policies are only ambitious in a few sectors and less so in most others. 85 % believe that no or only a few additional policies were introduced (third lowest indicator among EU countries).

A main challenge to be overcome is the refurbishment of the wide-spread multi-family buildings. The current renovation rate is seen as too low despite an existing programme.

Experts note that the national ministry - and in general public sector bodies - dealing with energy efficiency suffer from a lack of staff capacities and that the role of the national energy agency should be strengthened.
In the public sector, structural funds are now used for renovation of public buildings.

The residential sector is considered as the field with the highest need to act. As in some of the neighbouring countries, the majority of the population live in multi-family buildings where the flats are owned by the occupants. Renovation measures require majorities among owners which are hard to come by. Generally, experts see still an important lack of awareness among households in energy efficiency.

So far, there are very few activities in relation to energy contracting and there are nearly no ESCOs active in the industry and service sector.
Experts report that in the transport sector, more bike lanes were constructed and also public transport infrastructure was improved but that there is still not enough action to support energy efficiency in transport.

Among specific policy instruments, energy audits (46% partly or very effective), energy efficiency funds (38% partly or very effective) and smart metering (38% partly effective) are the policy instruments seen as the most effective.

![Lithuania: degree of effectiveness of different policy instruments](image)

**Lithuania**

In the opinion of the Luxembourgish experts, Luxembourg is among the EU countries that has made good progress in energy efficiency policies since the NEEAP 1 (country progress indicator: 3 out of 27 - see page 81). More than 40% believe that the ambition of the energy policies is general rather high (second highest of all EU countries).

57% of the experts say that a range or many of additional policies were introduced. Nearly 60% think that national energy savings target will be achieved but that this will not lead to a lot of additional savings.

Experts mentioned energy efficiency in existing buildings and transport as the most critical issues. Positive developments included new building legislation based on the EPBD, the European Directive on the energy performance of buildings.
Myenergy was mentioned as an important actor to disseminate energy efficiency information.

In the public sector, experts welcome the upcoming requirements to renovate public buildings.

In the residential sector, the growth of the building stock represents a challenge. Both in the residential and the service sector, the new legislation will drive energy efficiency in new buildings.

Experts see very significant gaps in energy efficiency policies in the transport sector (the third highest gap across sectors and countries). Increasing numbers of cars and low fuel prices were mentioned.
In terms of specific energy efficiency policy instruments, the experts see energy audits (86% partly or very effective) and qualification, accreditation and certification schemes (71% partly or very effective) as very effective. Half of the interviewees consider voluntary agreements as not effective at all (the second highest percentage of all Member States).

**Lux: the most important gap in energy efficiency policies**

<table>
<thead>
<tr>
<th>Sector</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential sector</td>
<td>0%</td>
</tr>
<tr>
<td>Public sector</td>
<td>14%</td>
</tr>
<tr>
<td>Industry &amp; service sector</td>
<td>14%</td>
</tr>
<tr>
<td>Transport sector</td>
<td>58%</td>
</tr>
<tr>
<td>Energy sector</td>
<td>14%</td>
</tr>
<tr>
<td>Others/ Comment</td>
<td>0%</td>
</tr>
</tbody>
</table>

**Lux: degree of effectiveness of different policy instruments**

- **White Certificates**: 43% partly effective, 57% very effective
- **Voluntary Agreements**: 50% partly effective, 33% very effective, 17% not effective at all
- **Obligations for energy companies**: 29% partly effective, 43% very effective, 28% not effective at all
- **Energy Audits**: 14% not effective at all, 72% partly effective, 14% very effective
- **Qualification, accreditation & certification schemes**: 57% partly effective, 14% very effective, 29% not effective at all
- **EE Funds**: 57% partly effective, 43% very effective
- **Smart Metering**: 14% not effective at all, 57% partly effective, 29% very effective

Legend:
- Red: not effective at all
- Green: partly effective
- Light green: very effective
- Grey: unknown/ not implemented
Malta

According to the Maltese experts, Malta is among the countries where energy efficiency policies progressed - by comparison with other countries and with previous periods - very well since the first NEEAP (country progress indicator: 3 out of 27 - see page 81).

Nearly 60% believe that energy efficiency policies are at least ambitious in a range of sectors or generally high.

Especially in comparison of previous policy frameworks, progress is seen as significant since the first NEEAP: 71% see a range or even many new policies (highest indicator of all countries). Opinions are divided on achieving the energy efficiency target.

Critical issues mentioned were energy efficiency in the building sector, including financing but also the lack of information and skills across the value chain (owners, construction companies etc.). The transport sector lacks infrastructure and awareness raising measures.

On the positive side, the adoption of energy efficiency legislation (based in European Directives) and new grant programmes, addressing different sectors, were mentioned. Also increased energy prices were reported as having a positive impact on energy efficiency.
In the public sector, experts see a lack of human resources for energy efficiency as well as the lack of obligations to act on energy efficiency in this sector. According to the experts, more energy audits in public building need to be carried out. However, increased action on local level was reported, and a number of municipalities are developing Sustainable Energy Actions Plans, based on their signature of the Covenant of Mayors.

In the residential sector, there are some limited grants available for energy efficiency measures (including double glazing and roof insulation). Also in the service and industry sector (important sectors include hotels and the electronic industry), some grants are available through ERDF funding.

In the transport sector, the old buses were replaced by new and more efficient ones. Also there is a programme for promoting electric cars, however, according the experts, the market is still very small.

In terms of specific energy efficiency policy instruments, the Maltese experts have - by comparison to other countries - a rather positive attitude: 71 % consider energy efficiency funds at least as partly effective, 66 % consider qualification, accreditation & certification at least as partly effective and 57 % consider smart metering at least as partly effective.
The Dutch experts rank the progress in energy efficiency policies as rather slow since the first NEEAP (country progress indicator: 24 out of 27 - see page 81). 28% of the interviewees think that no or very little progress was made, 55% say that only a few additional policies were introduced. Nearly 60% believe that the national energy savings target will not be achieved.

The lack of ambition and enthusiasm of energy efficiency policies, of stable investment climate due to frequent changes and of funding programmes for building renovation are among the reported critical issues. Positive developments include an increase in fuel taxes which creates better economies for energy savings as well as more private initiatives for energy efficiency, also on regional level.

Concern was expressed over significant budget and staff reduction of the national energy agency which lead to discontinuation of a range of services.
In the public sector, the experts observe a lack of ambition in the policies. However, the standards for new public building are considered to be ambitious and progress is reported on ESCO initiatives as well as a funding programme for local climate protection programmes (however, future funding for this programme seems unsure).

In the opinion of the experts, in the residential sector, the implementation measures of the (first) EPBD (the Directive 2010/31/EU on the energy performance of buildings) are in place but have yet to show an impact, implementation could also be more ambitious. Positive expectations were expressed regarding a new legislation in the social housing field which may help to overcome the "user/investor" challenge (investor does not profit from energy savings after a renovation but the user).
In the industry and service sector, not many incentives for energy efficiency are in existence according to the experts. However, a long-term agreement until 2020 between the government and the industry sector exists.

Experts report that lower taxes for cleaner vehicles exist, a well-developed public transport system, well-established bike lane systems and good interconnections between transport modes. However, recently the speed limit for motorways was increased from 120 to 130 km/h.

Among specific energy policy instruments, the Dutch experts rate the progress in public procurement relatively higher than in other countries: 94 % see at least some or significant progress in EE in public procurement (second highest progress indicator among the EU countries).

Among specific policy instruments, the Dutch experts see energy voluntary agreements and energy audits as the most effective (respectively 79 % and 72 % see them as very or partly effective), smart metering is either unknown or considered as not implemented.
Poland

The Polish experts rank the progress in energy efficiency policies as relatively low since the first NEEAP (country progress indicator: 21 out of 27 - see page 81).

85% of the interviewees see that the overall ambition in energy efficiency policies as either generally low or only ambitious in a few sectors. 76% state that only a few additional policies were introduced or that no progress was made.

A main concern expressed by the experts relates to the delay in legislation, especially the adoption of the energy efficiency law which would introduce White Certificates. Also, the lack of awareness and energy efficiency action among companies was critically mentioned. Experts comment negatively on the lack of a national energy agency with a mission to strategically support the national government in energy efficiency policies.

On the positive side, experts noted that energy efficiency is now recognised as an important issue in policy documents, especially thanks to European Directives. Also the adoption of the Energy Efficiency Act and the creation of related grant programmes were seen positively.
In the public sector, 62% see no progress in energy efficiency in public procurement (the lowest value of all EU countries).

In the residential sector, a programme for funding renovation is available and expected to continue. According to the experts, the impact of the energy performance certification is lower than expected.

In the industry and service sector, funding programmes exist, however, the increasing energy costs are seen as the main driver for energy efficiency. Energy efficiency in transport is not receiving sufficient policy attention, according the experts the focus in the road transport.

The experts state that at the moment, an energy efficiency contracting market does not exist. However, a dialogue has been started to change regulations and facilitate the market entry of ESCOs.

The Polish experts regard the lack of legislation and its implementation as by the greatest barrier to energy efficiency (and not financing).
Looking at a range of energy efficiency policy instruments, the Polish energy experts rate energy audits and energy efficiency funds as the most effective (respectively 77 % and 64 % see them as very or partly effective). They seem to have less trust in voluntary agreements.

### Poland: degree of effectiveness of different policy instruments

<table>
<thead>
<tr>
<th>Policy Instrument</th>
<th>Not effective at all</th>
<th>Partly effective</th>
<th>Very effective</th>
<th>Unknown/Not implemented</th>
</tr>
</thead>
<tbody>
<tr>
<td>White Certificates</td>
<td>14</td>
<td>14</td>
<td>72</td>
<td>0</td>
</tr>
<tr>
<td>Voluntary Agreements</td>
<td>35</td>
<td>15</td>
<td>50</td>
<td>0</td>
</tr>
<tr>
<td>Obligations for energy companies</td>
<td>14</td>
<td>48</td>
<td>3</td>
<td>33</td>
</tr>
<tr>
<td>Energy Audits</td>
<td>14</td>
<td>63</td>
<td>14</td>
<td>9</td>
</tr>
<tr>
<td>Qualification, accreditation &amp; certification schemes</td>
<td>29</td>
<td>33</td>
<td>14</td>
<td>24</td>
</tr>
<tr>
<td>EE Funds</td>
<td>18</td>
<td>55</td>
<td>9</td>
<td>18</td>
</tr>
<tr>
<td>Smart Metering</td>
<td>23</td>
<td>3</td>
<td>72</td>
<td>0</td>
</tr>
</tbody>
</table>

The interviewees were divided regarding the introduction of new policies: 52 % saw a range or many additional policies, 48 % only a few or no additional policies. Accordingly, opinions also differ on the achievement of the energy savings target: about a third thinks that the target will certainly or probably be achieved, and another third believes that the target will not be achieved.

Most critical issues mentioned include the lack of funding, especially in the face of the financial crises. Also, an ESCO market has not yet developed.

On the positive side, experts report the implementation of the (first) EPBD (the Directive 2010/31/EU on the energy performance of buildings) and an upcoming new legislative framework for ESCOs.

---

**Portugal**

According to the Portuguese experts, Portugal is among the countries where energy efficiency policies progressed comparatively well since the first NEEAP (country progress indicator: 6 out of 27 - see page 81). They see a relatively high overall ambition of energy efficiency policies as 62 % consider it at least ambitious in a range of sectors (third highest indicator of all countries).

The interviewees were divided regarding the introduction of new policies: 52 % saw a range or many additional policies, 48 % only a few or no additional policies. Accordingly, opinions also differ on the achievement of the energy savings target: about a third thinks that the target will certainly or probably be achieved, and another third believes that the target will not be achieved.

Most critical issues mentioned include the lack of funding, especially in the face of the financial crises. Also, an ESCO market has not yet developed.

On the positive side, experts report the implementation of the (first) EPBD (the Directive 2010/31/EU on the energy performance of buildings) and an upcoming new legislative framework for ESCOs.
The active role of the national energy agency Adene in energy efficiency programmes was mentioned.

In the public sector, the lack of funding is particularly challenging. Also, the complexity of organisational structures is reported as a barrier.

In the residential sector, experts observe the removal of the financial incentives for energy efficiency.

In the industrial sector, a programme for the energy-intensive industry exists which obliges companies to draw up energy efficiency plans.

In the transport sector, local initiatives to promote electric cars were described by the experts.
Energy audits (83 % partly or very effective), qualification, accreditation and certification schemes (68 % partly or very effective) and smart metering (58 % partly or very effective) are considered to be the most effective among specific energy efficiency policy instruments.

Romania

According to the Romanian experts, Romania is among the countries that has made relatively little progress in energy efficiency policies since the first NEEAP (country progress indicator: 23 out of 27 - see page 81).

They consider the ambition of the energy efficiency policies to be relatively low - 70 % think it is only ambitious in a few sectors or generally rather low. More than half think that only a few additional policies were introduced since the first NEEAP. And similarly, over 50 % believe that the energy savings target will not be achieved.

The most critical issue - according to the experts - is funding energy efficiency measures. Also the lack of staff capacity in the public sector and the changes in the institutional framework are considered as a challenge.

On the positive side, relevant EU legislation was transposed, providing a legislative framework and also some funding mechanisms are available.
In the public sector, there are very limited financial resources for investing in energy efficiency and measures foreseen the legislation and action plans can not be implemented due to lack of budgets.

In the residential sector, some financial programmes are available which include tax reductions as well as financial support for the renovation of multi-family buildings. In the industry sector, experts report that there is a legal requirement for carrying out regular energy audits.

In the transport sector, experts list some initiatives relating to energy efficiency, a main challenge is public transport which is reported to have deteriorated.
Among specific energy efficiency policy instruments, energy audits (57% partly or very effective) and qualification, accreditation and certification schemes (52% partly or very effective) are seen as the most effective ones.

![Romania: degree of effectiveness of different policy instruments](image)

**Slovak Republic**

According to the Slovak experts, the Slovak Republic is among the countries that has made relatively little progress in energy efficiency policies since the first NEEAP (country progress indicator: 26 out of 27 - see page 81). They consider the ambition of the energy efficiency policies to be rather low (second lowest indicator of all countries). According to the experts, only a few additional policies were introduced. More than 40% believe that the energy savings target will not be achieved.

Critical issues mentioned by the experts include financing and public funding of energy efficiency, the lack of data on energy efficiency potentials and the resource challenges for a small country to meet all its EU obligations.

Positive aspects include the adoption of key legislation, especially in relation to the European Buildings Directive and a positive change in attitude towards energy efficiency on policy level.

A lack of staff and financial resources within the institutions on energy efficiency issues was observed.
In the public sector, procurement was mentioned by the experts as a key field with needs for improvements. Also compared to other Member States, relatively little progress was made in this field.
In the residential sector, a fund is available for the renovation of apartment buildings, with a focus on low cost solutions.

In the industry sector, energy audits are mandatory for companies above a certain consumption threshold.

Energy audits (72 % partly or very effective) are perceived as the most effective among specific energy policies instruments.

Survey Report: Progress in energy efficiency policies
According to the Slovene experts, Slovenia is among the countries where energy efficiency policies progressed comparatively well since the first NEEAP (country progress indicator: 7 out of 27 - see see page 81).

They see a relatively high overall ambition of energy efficiency policies - 67 % consider it at least ambitious in a range of sectors. The same percentage believes that a range or many additional energy were introduced in the last years.

However, more than 40 % believe that the national energy savings target will not be achieved.

According to the experts critical issues include the building certification and in general a slow implementation of the (first) EPBD. Generally, the experts see a lack of strategic approach to energy efficiency sectors on national level.

Experts mention the introduction of a new fund for energy efficiency as a positive development and also that more business actors are getting involved in energy efficiency issues.
In the public sector, experts mention that obligatory energy bookkeeping is now mandatory but not yet widely implemented. Fragmentation of responsibilities among ministries are a challenge. There are initiatives for green procurements but more could be done.

In the residential sector, the implementation of the (first) EPBD (the Directive 2010/31/EU on the energy performance of buildings) has been very slow according to the experts.

In the industrial sector, some energy management systems were introduced.

According the experts, the public transport system is not in good shape and there is a lack of policy in this field. Some initiatives to promote electric cars are implemented.

Among specific energy policy instruments, energy efficiency funds are seen as most effective (most positive indicator of all countries with 100 % seeing them as partly or very effective), followed by energy audits (84 % partly or very effective).
Spain

Spain is among the Member States that - according to the experts - has made medium progress in energy efficiency policies since the first NEEAPs (country progress indicator: 15 out of 27 - see page 81). Opinions on the level of overall ambition in energy efficiency policies are divided: more than 40 % think it is ambitious in a range of sectors or even generally rather high whereas more than 50 % believe only ambitious in a few sectors or generally rather low.

Nearly 60 % see only a few additional policies in the last years or even no or very little progress. 44 % believe that the energy savings target will not be achieved.

Main challenges mentioned by the experts include the lack of funding for energy efficiency investments and for awareness raising and promotion. Positive developments mentioned include the development of the ESCO market.

![Survey Report: Progress in energy efficiency policies](Survey_Report_Progress_in_energy_efficiency_policies.png)
In the public sector, programmes to renovate public buildings and street lighting, also involving ESCOs, in some regions and municipalities were positively mentioned. Clearly, there are financial constraints in the public sectors and also the need for more specialised staff was observed.

In the residential sector, there are some national funds to promote energy efficiency. In the service and industry sector, there are energy audit programmes.

In the transport sector, experts still observe a rather high use of public transports by the population but also the need for infrastructure investments.

In terms of specific energy efficiency policy instruments, energy audits and energy efficiency funds are seen as the most effective policy instruments. 45 % consider voluntary agreements as not effective (third most negative indicator of all countries)
According to the Swedish experts, Sweden is among the countries where energy efficiency policies has seen good-to-medium progress since the first NEEAP (country progress indicator: 9 out of 27 - see page 81). They see a relatively high overall ambition of energy efficiency policies as - 59 % consider it at least ambitious in a range of sectors or generally as rather high.

In terms of progress in the last 3 years, nearly 60 % say that only a few additional policies were introduced or no or very little progress was made. Opinions are also divided on the energy savings target: around 30 % think that the energy savings targets will certainly or probably be achieved and 38 % state that the target will not be achieved.

Critical issues observed by the experts include the lack of political will for more ambitious and proactive energy efficiency policies. Experts see a lack of understanding of the economic benefits of energy efficiency and a too strong belief in market forces alone. Concerns were also expressed on the lack of ambition in energy efficiency in buildings (e.g. in the national definition of "Nearly Zero Energy Buildings").

Positive developments observed include an increased commitment and activities by local and regional actors. Also a number of permanent "buyer groups" - professional networks in the field of buildings and industry - have been very successful in paving the way for deployment of new technologies and solutions.
The public sector should be a trend setter for new solutions - from the point of view of the experts, activities on the national sector could be significantly more ambitious.

In the residential sector, according to the experts, legal requirements are insufficient and - again - the positive impacts of improved energy efficiency are not sufficiently understood by the actors in this field and therefore not taken into account.

The industry and service sectors, the PFE programme (a programme for increasing energy efficiency in energy intensive industry) was perceived to be a success by the experts but they mentioned that its scope was too limited and that it is also expected to be terminated. Especially in the service sector, energy consumption was reported to have increased significantly.

In the transport sector, like in many other European countries, the experts observe a tradition of large and heavy cars and not enough investments in public transport.

In terms of specific energy efficiency policy instruments, voluntary agreements (highest indicator among member states - 85 % see them as partly or very effective) and energy audits (84 % partly or very effective) are seen most positively.
The UK is among the Member States that has made medium progress in energy efficiency policies since the first NEEAPs (country progress indicator: 13 out of 27 - see page 81). Opinions on the ambition of the energy efficiency policy are divided: about half see an ambition in at least a range of sectors or that it is generally rather high, whereas the other half believes that the ambition is limited to a few sectors, or in general rather low. Around 70% think that only a few additional policies were introduced or no or very little progress was made. And nearly 50% believe that the energy efficiency target will not be achieved (second lowest indicator of all countries).

Critical issues reported include an ageing housing stock with low renovation rates as well as a lack of awareness raising activities, both for households and for SMEs. According to the experts, effective programmes to advise end consumers and also businesses have recently been reduced or abolished. Also they mention that the start of new programmes and initiatives has been delayed in several instances, creating market uncertainties and delays in investment decisions by end consumers and businesses.

There is significant concern among the experts about the planned "green deal" (the UK government's energy efficiency initiative). They see a risk of failure, especially in terms of making it practically work. However, there could be significant positive impacts, mainly by bringing new players and financing to the market.
In the public sector, in previous years, local authorities were given performance targets. Recently, these were redefined and are reported to be less ambitious than previously.

Experts see the largest energy efficiency potential in the residential sector. Financing remains the major challenge, also because of the investor/user conflict. Fuel poverty is also seen as a continued problem.

In the service and industry sector, a "carbon reduction commitment" programme for large consumers was a driver in the past. The experts comment that the carbon related activities are taking effect (ETS). However, no programmes exist for behavioural change in companies and in general, there seems to be a lack of programmes for smaller SMEs.
In the transport sector, a lack of a coherent policy was mentioned and that there was still too much emphasis on cars and too less on improving public transport (e.g. rail transport is seen as very expensive and there are no strategies to bring costs down). However, there are some positive developments, such as the congestion charges, the reduction of car parking spaces and well-working public transport systems in some cities. As in other countries, experts mentioned the need to redesign the car label to better reflect performance of the car in terms fuel consumption.

Among selected policy instruments, 86 % consider obligations for energy efficiency companies at least as partly effective effective (second most positive indicator of all countries). 45 % consider White Certificates at least as partly effective (third most positive indicator of all countries).
Survey Results across Member States

Quantitative survey

Progress indicator

In order to compare the progress across countries and policy field, a "progress indicator" was calculated from four relevant questions of the quantitative survey (see annex for the questionnaire), namely question 1 (ambition of energy efficiency policies), question 2 (progress in the last 3 years), question 3 (national energy savings target) and question 5 (improvements in the "ESD focus areas" procurement, energy efficiency services, financial instruments and energy efficiency information). The answers were weighted (the most positive answer by 100, the least positive one by 0).

The ranking resulting from this calculation showed Finland, Denmark and Malta as the three countries where energy efficiency policies progressed most since the first NEEAP and Italy, the Slovak and the Czech Republic as those three where the least progress was made.

<table>
<thead>
<tr>
<th>Country</th>
<th>Progress Indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>13</td>
</tr>
<tr>
<td>Belgium</td>
<td>18</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>16</td>
</tr>
<tr>
<td>Cyprus</td>
<td>22</td>
</tr>
<tr>
<td>Czech Rep.</td>
<td>25</td>
</tr>
<tr>
<td>Denmark</td>
<td>2</td>
</tr>
<tr>
<td>Estonia</td>
<td>3</td>
</tr>
<tr>
<td>Finland</td>
<td>1</td>
</tr>
<tr>
<td>France</td>
<td>10</td>
</tr>
<tr>
<td>Germany</td>
<td>8</td>
</tr>
<tr>
<td>Greece</td>
<td>16</td>
</tr>
<tr>
<td>Hungary</td>
<td>20</td>
</tr>
<tr>
<td>Ireland</td>
<td>11</td>
</tr>
<tr>
<td>Italy</td>
<td>27</td>
</tr>
<tr>
<td>Latvia</td>
<td>12</td>
</tr>
<tr>
<td>Lithuania</td>
<td>18</td>
</tr>
<tr>
<td>Lux</td>
<td>3</td>
</tr>
<tr>
<td>Malta</td>
<td>3</td>
</tr>
<tr>
<td>NL</td>
<td>24</td>
</tr>
<tr>
<td>Poland</td>
<td>21</td>
</tr>
<tr>
<td>Portugal</td>
<td>6</td>
</tr>
<tr>
<td>Romania</td>
<td>23</td>
</tr>
<tr>
<td>Slovak Rep.</td>
<td>26</td>
</tr>
<tr>
<td>Slovenia</td>
<td>7</td>
</tr>
<tr>
<td>Spain</td>
<td>15</td>
</tr>
<tr>
<td>Sweden</td>
<td>9</td>
</tr>
<tr>
<td>UK</td>
<td>13</td>
</tr>
</tbody>
</table>
Overall ambition

The first question of the survey intended to get an impression of the "energy efficiency policy climate" in each country and a feeling of how the experts saw the general aspirations of their country in energy efficiency policies.

A very varied picture presents itself: Combining those that see the ambition as either "generally rather low" and those that see policies as "ambitious in a few sectors, less so in most others", the following picture emerges: the Czech Republic, the Slovak Republic, Italy, Cyprus and Poland are seen as the least ambitious by the experts from the respective countries. On the other end, Denmark, Luxembourg and Finland are rated highest by their country experts ("ambitious in a range of sectors" combined with "generally, rather high ambition"). This mixed picture across Member States results in an average across countries with 60 % with rather low levels of ambition and 40 % with higher levels of ambition.

<table>
<thead>
<tr>
<th>Country</th>
<th>EU27: overall ambition of the energy efficiency policies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>generally, rather low</td>
</tr>
<tr>
<td>Belgium</td>
<td>ambitious in a few sectors, less so in most others</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>generally, rather low</td>
</tr>
<tr>
<td>Cyprus</td>
<td>ambitious in a few sectors, less so in most others</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>generally, rather low</td>
</tr>
<tr>
<td>Denmark</td>
<td>ambitious in a range of sectors, less so in a few others</td>
</tr>
<tr>
<td>Estonia</td>
<td>generally, rather low</td>
</tr>
<tr>
<td>Finland</td>
<td>ambitious in a range of sectors, less so in a few others</td>
</tr>
<tr>
<td>France</td>
<td>generally, rather low</td>
</tr>
<tr>
<td>Germany</td>
<td>ambitious in a range of sectors, less so in a few others</td>
</tr>
<tr>
<td>Greece</td>
<td>generally, rather low</td>
</tr>
<tr>
<td>Hungary</td>
<td>ambitious in a range of sectors, less so in a few others</td>
</tr>
<tr>
<td>Ireland</td>
<td>generally, rather low</td>
</tr>
<tr>
<td>Italy</td>
<td>generally, rather low</td>
</tr>
<tr>
<td>Latvia</td>
<td>ambitious in a range of sectors, less so in a few others</td>
</tr>
<tr>
<td>Lithuania</td>
<td>generally, rather low</td>
</tr>
<tr>
<td>Lux</td>
<td>ambitious in a range of sectors, less so in a few others</td>
</tr>
<tr>
<td>Malta</td>
<td>generally, rather low</td>
</tr>
<tr>
<td>Netherlands</td>
<td>ambitious in a range of sectors, less so in a few others</td>
</tr>
<tr>
<td>Poland</td>
<td>generally, rather low</td>
</tr>
<tr>
<td>Portugal</td>
<td>ambitious in a range of sectors, less so in a few others</td>
</tr>
<tr>
<td>Romania</td>
<td>generally, rather low</td>
</tr>
<tr>
<td>Slovak Republic</td>
<td>ambitious in a range of sectors, less so in a few others</td>
</tr>
<tr>
<td>Slovenia</td>
<td>ambitious in a range of sectors, less so in a few others</td>
</tr>
<tr>
<td>Spain</td>
<td>generally, rather low</td>
</tr>
<tr>
<td>Sweden</td>
<td>ambitious in a range of sectors, less so in a few others</td>
</tr>
<tr>
<td>UK</td>
<td>generally, rather low</td>
</tr>
</tbody>
</table>
Progress in the last 3 years

The second question focuses on the specific progress in the last 3 years (at the time when the survey started, this was the timeframe since the first NEEAP period).

The highest values for "no or very little progress" combined with "a few additional policies" are given by the experts from the Slovak Republic, the Czech Republic, Hungary and Lithuania with values around 90 %. Experts from Italy and the Netherlands follow with values of more than 80 %.

On the other hand, the experts from Estonia and Finland see the highest recent progress (around 80 %), followed by Malta (71 %).
**National energy savings targets**

The next question relates to the national energy savings target foreseen in the ESD and how the experts saw the performance of their respective country in achieving this target.

The most pessimistic were the experts from Ireland, the Netherlands and Romania (more than 50 % think that their national target will not be achieved), followed by Austria, the UK and Italy. The most optimistic were the Danish experts (80 % believe that their country will probably or certainly achieve the energy savings target), followed by the Finish (67 %) and the Estonian (55 %).
Improvements in ESD focus areas

A group of questions focuses on the improvements in actual implementation in fields that are treated with special attention in the ESD:

- energy efficiency in public procurement
- the conditions for energy efficiency services
- financial instruments for energy savings (e.g. energy performance contracting)
- the availability of energy efficiency information.

In the fields of public procurement, of conditions for energy efficiency services and of financial instruments, the progress is seen as rather moderate. Also there are only very limited differences between the three fields. The dominant answer is "some progress" (average across EU Member States: 54 % for financial instruments, 60 % for conditions for energy efficiency services and 61 % for procurement). Only a small number of experts - 12 % (procurement), 15 % (conditions for energy efficiency services) and 19 % (financial instruments) - observed significant or high progress.

The availability of energy efficiency information clearly saw a better development: 43 % observe significant or even very high progress.

In public procurement, the countries with lowest level of progress reported are Poland (62 % of the experts said that there was no progress in this field in their country in the last 3 year), the Slovak Republic (57 % "no progress") and the Czech Republic (45 % "no progress). Interestingly, as a contrast, the Czech Republic is also among the countries were comparatively the highest progress rates are reported in this field (27 % see "significant progress"), only surpassed by the experts from Luxemburg (33 % "significant or very high progress").

No progress in the conditions for energy efficiency services is seen by 48 % of the Polish experts and by 46 % respectively of the Lithuanian and Hungarian expert. A positive
development (significant or very high progress) is observed by 50 % in Luxembourg, by 33 % in Malta and by 30 % in Portugal.

50 % or more of the experts report that there was no progress in the implementation of financial instruments for energy savings (e.g. energy performance contracting) in Hungary, Lithuania and Ireland. On the other end of the spectrum, 57 % of the experts in Malta see significant or very high progress, followed by Estonia (55 %) and France (37 %).

According to the experts, the availability of energy efficiency information was improved most in Slovenia (67 % significant or very high progress), in Estonia (64 %), in Finland (63 %) and in Portugal (62 %). No progress is stated by 33 % of the Bulgarian experts, 27 % of the Czech experts and 20 % of the Italian experts.

The detailed results per Member States are included in the annex.

**Gaps in energy efficiency policies**

Experts were also asked in which sector they saw the most important gap in the energy efficiency policies in their respective countries. In the average across EU countries, transport is in the lead (34 % see the largest gaps in this field), followed by the residential sector with 24 %.

However, answers differ strongly across countries:

The largest gap is found in the transport sector in the Denmark and in Austria: 73 % respectively 70 % see energy efficiency in transport as the most important policy gap. Also high gaps in transports are reported from Luxembourg (57 %) and Portugal (52 %). Comparatively high gaps in the residential sector are observed by the experts from Lithuania (46 %) and Latvia (41 %). The Greek experts see the most important gap in the public sector (44 %), the Estonian experts in the industry & service sector (40 %).
Barriers to energy efficiency

Another question aimed to find out where the experts saw the greatest barrier to energy efficiency in their countries.

Not surprisingly, across EU countries, 47% see it in financing of energy efficiency investment, followed by the lack of legislation or its implementation (28%).

Financing is perceived as the highest barrier by the experts in the Czech Republic (80%), Portugal (76%) and Slovenia (67%). 54% of the experts in Lithuania and 50% in Luxembourg see lack of legislation or its implementation as the greatest barrier.
Specific energy efficiency policy instruments

A set of questions relates to a range of specific energy efficiency policy instruments mentioned in the ESD. They look at the perceptions of their effectiveness in the Member States.

In overall terms, energy audits are the instruments with the highest acceptance - 74 % of the experts agree that they are at least partly effective. White Certificates are the least known or implemented instrument. 25 % of the experts consider voluntary agreements as not effective in their countries.
Across instruments, the Danish, the British and French experts show the most positive attitude, whereas the Cypriot, the Lithuanian and the Hungarian show the least positive opinions.

According to the experts, "White Certificates" are not known or implemented in Malta (100 % of the experts chose this answer), in Slovenia (90 %), in the Netherlands (89 %) and in Bulgaria (89 %). 63 % of the French experts see them as partly or very effective, 57 % of the Italian experts and 45 % of the British experts.

Voluntary agreements are unknown or not implemented according to 69 % of the Hungarian experts, 64 % of the Estonian and 63 % of the Cypriot experts. Opinions are divided about the effectiveness of this instrument: whereas Austrian (53 %), Luxembourghish (50 %) and Spanish experts (45 %) see it as "not effective at all", a large majority finds it partly or very effective in Sweden (84 %), the Netherlands (79 %) and Denmark (73 %).

Obligations for energy efficiency companies are least known or least implemented in the Netherlands (68 %), in Portugal (47 %) and in Latvia (44 %). They are considered to be not effective mostly by experts from Cyprus (38 %), Lithuania (38 %) and Hungary (34 %). 100 % of the Danish experts consider them at least as partly effective, 86 % of the British and 73 % of the Slovene experts.

Energy audits are in general well-known and implemented in most EU countries. They are most popular in Denmark (93 % consider them at least partly effective), Austria (92 %) and the Czech Republic (90 %) - all three countries have a long tradition of energy advice programmes. Only in Cyprus, 50 % consider it an instrument which is not effective at all, followed by Lithuania (31 %) and Belgium (31 %).

Qualification, accreditation & certification schemes (e.g. for energy service providers) are least known or implemented in the Netherlands (50 %), in Lithuania (46 %) and
Romania (38 %). They are not considered effective by 50 % of the Cypriot experts. Experts in Estonia (82 %), in Austria (75 %) and in Denmark (73 %) consider them at least partly as effective.

**Energy efficiency funds** are most popular among the Slovene experts - 100 % consider them at least as partly effective. Also a very positive view is expressed by the Cypriot (88 %) and the Czech experts (82 %). They are seen as not effective by 37 % of the Portuguese, 32 % of the Italian and 29 % of the Romanian experts.

**Smart metering** is least known or implemented Cyprus (75 %), Poland (73 %) and the Slovak Republic (67 %). It is not considered as effective by 39 % of the Dutch experts and by 36 % respectively of the Estonian, German and Slovene experts.
<table>
<thead>
<tr>
<th>Policy Area</th>
<th>Like Country</th>
<th>Like Percentage</th>
<th>Dislike Country</th>
<th>Dislike Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>White Certificates</td>
<td>France</td>
<td>63%</td>
<td>Austria</td>
<td>53%</td>
</tr>
<tr>
<td></td>
<td>Italy</td>
<td>57%</td>
<td>Lux</td>
<td>50%</td>
</tr>
<tr>
<td></td>
<td>UK</td>
<td>45%</td>
<td>Spain</td>
<td>45%</td>
</tr>
<tr>
<td>Voluntary Agreements</td>
<td>Sweden</td>
<td>84%</td>
<td>Austria</td>
<td>53%</td>
</tr>
<tr>
<td></td>
<td>NL</td>
<td>79%</td>
<td>Lux</td>
<td>50%</td>
</tr>
<tr>
<td></td>
<td>Denmark</td>
<td>73%</td>
<td>Spain</td>
<td>45%</td>
</tr>
<tr>
<td>Obligations for energy companies</td>
<td>Denmark</td>
<td>100%</td>
<td>Cyprus</td>
<td>38%</td>
</tr>
<tr>
<td></td>
<td>UK</td>
<td>86%</td>
<td>Lithuania</td>
<td>38%</td>
</tr>
<tr>
<td></td>
<td>Slovenia</td>
<td>73%</td>
<td>Hungary</td>
<td>33%</td>
</tr>
<tr>
<td>Energy Audits</td>
<td>Denmark</td>
<td>93%</td>
<td>Cyprus</td>
<td>50%</td>
</tr>
<tr>
<td></td>
<td>Austria</td>
<td>92%</td>
<td>Lithuania</td>
<td>31%</td>
</tr>
<tr>
<td></td>
<td>Czech R.</td>
<td>90%</td>
<td>Belgium</td>
<td>31%</td>
</tr>
<tr>
<td>Qualification, accreditation &amp;</td>
<td>Estonia</td>
<td>82%</td>
<td>Cyprus</td>
<td>50%</td>
</tr>
<tr>
<td>certification (e.g. E Service</td>
<td>Austria</td>
<td>75%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Providers)</td>
<td>Denmark</td>
<td>73%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EE Funds</td>
<td>Slovenia</td>
<td>100%</td>
<td>Italy</td>
<td>32%</td>
</tr>
<tr>
<td></td>
<td>Cyprus</td>
<td>88%</td>
<td>Portugal</td>
<td>37%</td>
</tr>
<tr>
<td></td>
<td>Czech R.</td>
<td>82%</td>
<td>Romania</td>
<td>29%</td>
</tr>
<tr>
<td>Smart Metering</td>
<td>Finland</td>
<td>80%</td>
<td>NL</td>
<td>39%</td>
</tr>
<tr>
<td></td>
<td>Estonia</td>
<td>36%</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Germany</td>
<td>36%</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Slovenia</td>
<td>36%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Need to act on European level**

The final set of questions aimed at assessing where the experts see the highest need to act on European level:

The vast majority of the 655 energy efficiency experts call for strong regulatory measures from the EU level: 87% want to see "stricter minimum standards for buildings and appliances", 85% are in favour of "mandatory energy efficiency standards in public procurements". 83% support a "significant expansion of energy labelling for appliances and equipment" and 81% "stricter binding energy efficiency targets for the public sector".
“Road charges for all roads” are the least popular measure (60 % are against it), followed by “free public transport funded by revenues from road charges” (40 % rejection).
Qualitative survey: good practice examples

In the course of the interviews carried out, several interesting policy practice examples emerged.

In Ireland, a change in car taxation in 2008 is deemed to be a success. The new system has moved away from assessing vehicles based on engine size to one that is based solely on the CO₂ emissions per kilometre. This provided a strong encouragement to buy smaller and more efficient cars: between 2007 and 2011 the CO₂ emission dropped from 164 g/km to 133 g/km.

In the Czech Republic, energy performance contracting is becoming more popular: good projects have multiplied and now more than 150 projects have bee realised. The growing number of projects has increased confidence in this instrument. The ESCOs have also taken a very active role in promoting the instrument and have recently formed an association.

Estonia has "earmarked" revenues of the sales of "unspent" JI quotas (AAUs) for energy efficiency. Amounts in the order of several 100 million Euro are invested in building programmes, in the residential and in the public sector. This included significant amounts also from the Austrian government.

The German "KfW programme" provides funding from the national government for deep renovation and construction of low energy buildings. In most cases, the owners/investors are given long term, low interest loans supported with professional, independent energy advice. Through its size (about 0.5 billion per year are spent) and the fact that it is well-known, it has succeed in setting new standards.

The Swedish industrial efficiency programme successfully introduced energy management schemes, those undertaking a set of measures get a modest rebate on the energy tax. The comparatively small financial signal has unleashed investments that would have been profitable but were not taken so far.

Austria has a long tradition of energy advice programmes funded by the regional governments and managed by regional energy agencies. The advice is provided by trained energy advisers and quality assurance measures are in place. The success of the programmes also depends on the fact that the advisers are independent of the sales of any product.
Results from the network discussions

As a part of the Energy Efficiency Watch project, the partner networks Fedarene, Energy Cities and ECEEE consulted their members and discussed progress in energy efficiency policies (or the lack thereof) from the perspectives of their network members. They held several discussion meetings at the occasion of their regular network meetings.

To complement this stakeholder consultation process, EUFORES collected views on energy efficiency policies progress from a number of other relevant European energy efficiency networks and associations. Representatives of 11 relevant European networks (including building materials and equipment, social housing, CHP, appliances) and NGOs were interviewed.

The following text summarises main issues raised in the discussions and the interviews. Summaries of the four reports can be found in the annex.

The political and institutional framework for energy efficiency

Network members reported on an enormous disparity among Member States in the level of the ambition of their energy efficiency policies. In some Member States, the recognition of the economic, social, political and environmental benefits of energy efficiency drive ambitious legislation and funding programmes whereas others just do the bare minimum required by the European Directives (and sometimes not even that). Experts are concerned by the fact that energy efficiency has not sufficiently managed to attract the attention of the highest political levels in the same manner as renewable energy has done.

Especially in times of financial crises - which in many countries resulted in a reduction of programmes for energy efficiency - it remains a key challenge to provide proof that energy efficiency is not a burden on public finances but the opposite: a way to save money in public buildings and a significant factor for job creation and tax income. The European Union spends several hundred billion Euros every year to import fossil fuels - increased energy efficiency will directly benefit the EU businesses and citizens by moving some of this expenditure into European economy.

In many countries, the regional and local level is reported as a main driver of energy efficiency - also because the benefits of energy efficiency are easier to communicate to political decision makers locally and regionally. Across Europe, there is an increasing number of regions and local authorities which are - often despite challenging economic circumstances - willing to make energy efficiency a priority. This is also confirmed by the increasing number of signatories of the Covenant of Mayors.

According to the experts, any successful energy efficiency policy will need to be built upon multi-level governance which integrates the local, the regional, the national and the European level.
The important role of energy agencies on national, regional and local levels was emphasised by many experts and in a range of countries. Where they exist, they were mentioned (by non-agency experts) as key players. In many countries, experts regret the insufficient numbers of regional and local energy agencies.

Another institutional challenge mentioned by a number of experts is that in many Member States, regions and cities, but also on the European level, there is a shortage of staff dealing with energy efficiency. This lack of staff often has an impact on the quality of transposition of European Directives but even more so on monitoring compliance and enforcement of the legislation.

On Member States level, but also regionally or locally, this is exacerbated by the fact that the energy efficiency dossier is spread among several departments or ministries. Experts mention that often it has been especially hard to interest finance ministries or departments in the energy efficiency agenda.

Building renovation and how to finance it

One key issue raised by experts was the urgent need for extensive building renovation across the European Union and the related issue of how to finance it. Most EU countries have programmes in this field and a number of positive examples for building refurbishment programmes were mentioned, including those using structural funds or income generated from selling excess carbon quotas. However, it is becoming more and more evident that these will not suffice to achieve significantly increased renovation rates.

Many experts believe that the positive economic impact of large-scale building refurbishment is underestimated by political decision makers and call for a clear long-term strategy. Such strategies should ensure a better continuity of funding programmes and help to overcome the user/investor problem. Also, up-scaling of building refurbishment will require new approaches in multi-level governance as well as a strong mobilisation of local actors (authorities, building owners, banks, construction companies etc.).

The European Directives on energy performance of buildings

According to the network discussion, the (first) EPBD (Directive 2002/91/EC on the energy performance of buildings) was considered as transposed to a large extent. On the positive side, experts see increasingly stricter building standards for new buildings coming into place in many countries, however, practical impacts on the real estate market and increased refurbishment rates are not yet visible to the experts. There is strong debate among experts about definitions of nearly zero energy buildings, following the (recast) EPBD (Directive 2010/31/EU on the energy performance of buildings).
European funding and financing programmes

Many experts in the networks welcome the increased priority given to sustainable energy in structural funds. However, they see a high need for streamlining and simplifying administrative requirements and decreasing their complexity.

They emphasise the continued need for European programmes to support tackling non-technological barriers, especially in the building sector (such as the Intelligent Energy Europe Programme).

Energy Performance Contracting

Only a few countries in Europe managed to develop a market for energy performance contracting (EPC). In most countries, administrative and legal barriers as well as the lack of information and quality assurance measures prevent its use in the public sector. The need to act in this field was stressed in all networks. However, experts warn that EPC is not the "silver bullet" for all energy efficiency investments but mostly for "low-hanging fruit" (energy efficiency potentials with short pay-back periods).

Many other barriers than money

While recognising the importance of improved financing and funding, experts stress that many other barriers to energy efficiency remain to be addressed - legal, institutional, in the fields of information, awareness raising and training etc.

Experts are concerned that a simplistic approach - if an energy efficiency investment is economic and access to capital is available, the investment will be made – will in many cases fail due to other market barriers.

Transport

A very strong message was given by all networks regarding the lack of comprehensive policies to promote energy efficiency in transport. Even though there are some positive examples, including changes in car taxation in a few Member States, experts criticise the absence of political will to act in this sector in many Member States. They see a lack of a clear vision and strategy for the mobility sector across Europe.

The local level is of particular importance in promoting sustainable transport. There are a number of local authorities which successfully demonstrate how changes in transport patterns can be achieved but again, however, their number is limited. Of all end-use sectors, experts see the highest gaps in energy efficiency policies in the transport field.
Is efficient sufficient?

Experts raised the question whether increased efficiency is sufficient as improved energy efficiency does not necessarily lead to a reduction in consumption. With larger homes, larger TVs and more powerful cars, the energy consumption keeps increasing despite improved technical efficiency. This is a very difficult issue as it touches upon the way of living and consuming. Future political action in this field will need to start tackling it.