



EUROPEAN COMMISSION  
DIRECTORATE-GENERAL FOR ENERGY

Directorate C - Renewables, Research and Innovation, Energy  
Efficiency

**C.3 - Energy efficiency**

PUBLIC CONSULTATION

"INTELLIGENT ENERGY – EUROPE III IN HORIZON 2020"

FINAL CONSULTATION REPORT

**INTRODUCTION**

As the present Intelligent Energy-Europe II (IEE II) Programme (2007-2013) ceases in 2013, options for following it up with a successor programme need to be considered. The final evaluation of IEE II concluded in 2011 that "the programme is relevant and useful as it replies to the evolving needs, problems and barriers related to sustainable energy issues that Europe is facing" and that there was a need for a successor programme. This finding was corroborated by the results of the ex-ante evaluation of a successor to the IEE II programme which demonstrated that continuing the programme would generate higher net benefits than not continuing the programme.

A public consultation was launched in 2012 to find out how a successor programme should build on the work of IEE II, and to help shape it under the Energy Challenge of the future EU programme for Research and Innovation "Horizon 2020".

The objective of the consultation was to seek the view of all relevant stakeholders given IEE's aim to provide focused and effective support for market deployment of sustainable energy measures to achieve the 20-20-20 targets and support the EU 2050 energy roadmap. The stakeholders included public authorities, the financial sector, the energy and transport sectors, and non-governmental organisations.

**CONSULTATION**

The public consultation was open from 20 June to 12 September 2012.

The Commission received a total of 643 responses. 10 replies were received outside the consultation period and could only partially be taken into account.

There were questions with multiple choice answers and question with free text format answers. The replies to the open questions were sometimes manifold, varied and specific, and an attempt was made to group them.

## 1. Background

Multiple answers were possible for this question concerning the background of respondents.

Amongst those who responded to the consultation, more than half were not beneficiaries of grants from the programme. 43% of the participants had been involved as beneficiaries of grants. 32% had been involved as applicants, 6% as evaluators, 4% as programme committee member or national contact point, and 35% had other backgrounds.

The following three countries had the highest number of respondents: Italy 13%, Germany 11% and Spain 11%. France and the United Kingdom each sent ca. 6% of the replies, then followed Sweden, Austria and Portugal with ca. 4-5% of replies. From Romania, The Netherlands, Bulgaria, Denmark, Cyprus, Poland, Greece, Ireland and Slovenia came each ca. 2-3% of the replies, Norway, Finland, Croatia, Czech Republic, Hungary, Latvia, Iceland, Lithuania and Malta each around 1%, and very few or no replies were received from participants in the former Yugoslav Republic of Macedonia, Liechtenstein, Luxemburg, Slovakia or Estonia.

The majority of replies, 31%, came from private non-profit organisations, 30% from a governmental organization, 26% from private commercial organisations, and 9% from other organisations. 4% of the participants were public commercial organisations, and 1% from European Economic Interest Groups and International Organisations.

## 2. Addressing market failures

*2.1 Is a successor to IEE II needed to address the removal of non-technological barriers hindering the deployment of energy efficient and renewable energy technologies?*

A clear majority of almost 90% participants wished to have a follow-up to IEE II, 7% were not certain and 4% did not wish to have a continuation of the programme.

*2.2 Which barrier(s) hindering the deployment of energy efficient and renewable energy technologies do you see as most significant?*

This first question with free format replies received most replies, over 500. The replies focussed on lack of knowledge and skills, lack of financing, and on policy related legislative and administrative barriers.

The following barriers were mentioned:

- behavioural/acceptance aspects on many levels; lack of training/skills, skilled workforce
- lack of market surveillance; different regulatory framework in MS; bureaucratic burdens
- special problems of small municipalities; geographic differences
- fossil fuel subsidies
- lack of long term strategy/planning/commitment; lack of standards

- improvement in best practise sharing required; lack of case studies
- lack of suitable business models/feasibility studies; high initial costs; lack of subsidies in MS; economic uncertainty; external costs
- access to grid/ grid issues; storage solutions; lack of data on energy consumption; transport should not be neglected

### 2.3 How could the barrier(s) you mentioned in the previous question be best addressed?

For addressing these barriers, there were many different suggestions, most of which are non-technological, and can be summarised either as awareness raising/capacity building, or securing financing, or help with implementation of policies.

#### a) Awareness raising/capacity building

Some participants suggested to further improve the exchange of good practise, disseminate results, but also not to lose sight of customer acceptance. Some thought that demonstration actions needed to be put forward, whereas some others wished to concentrate on research. Sectorial European working groups for safe design and operation of new energy systems (biogas) were another idea to overcome barriers. The support of Energy Services Companies (ESCO's) was also mentioned. To conclude, social innovation, improvements in infrastructure and education were mentioned as possible solutions to overcome barriers.

#### b) Financing

It was suggested, for instance, to continue ELENA / MLEI or to reinforce links with existing financing programmes, such as ERDF. Other suggestions were to concentrate on regional funding, to promote green procurement, innovative financing schemes, or to internalize external costs. Some participants proposed to focus on small scale and fund small projects, while others preferred support for large projects.

#### c) Help with implementation of policies

Long term strategies and a stable framework were recognised as important policy issues, and participants put forward monitoring, and market surveillance as possible solutions for overcoming barriers. The participants also thought that IEE could help with simplifying the bureaucracy, standardization, and with harmonizing EU and national legislation to overcome barriers. Some participants thought that IEE should also address issues around the Intellectual property rights.

#### d) Others

Some participants thought that concentrating on the local level, to include policy makers, public bodies and financial institutions could help to overcome barriers; they also saw SME, private homes, forest owners/farmers and finally industrial players as possible target groups.

A shift in direction, for instance from products to services, was seen as a possible solution, but also joint projects with environment, public-private partnerships, enhancing the link with measures implemented under the SET-plan, as well as other integrated approaches.

There was support for further work on market uptake, including support over the full innovation cycle and for particular market ready solutions, and emphasis on the need to involve multipliers for market deployment. Some emphasised the need for business plans, and to support the full value chain of energy services.

Some participants thought that dealing with technological aspects was important, and mentioned heating/cooling, energy storage, nuclear, carbon capture and storage, distribution, grid access, hydro power, waste heat recovery, and low carbon equipment. Others suggested more work on mobility management/transport or noise reduction, harmonizing smart meters, ICT/data availability, home labelling, or refurbishment. The harmonization of RE feed-in tariff schemes, buildings certificates or energy audit tools were other suggestions.

### **3. Shaping IEE III**

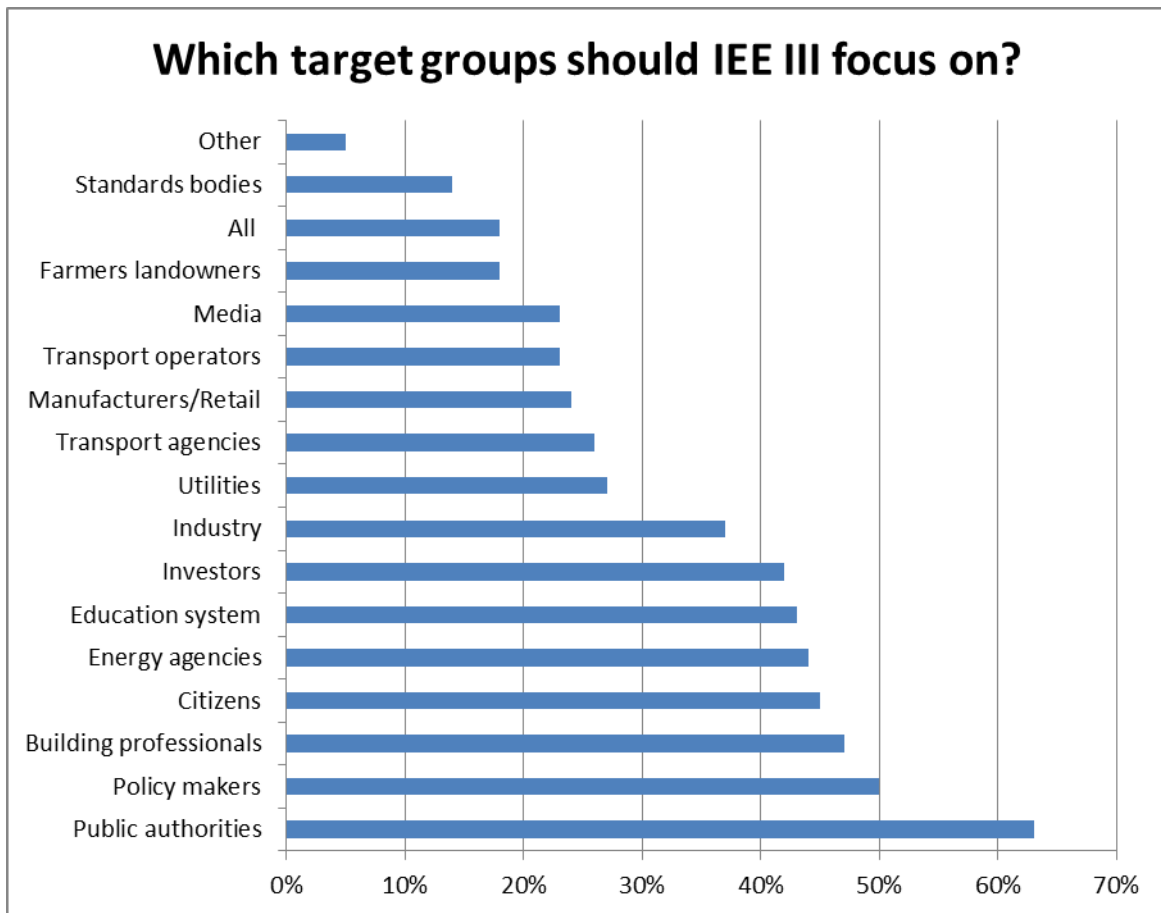
#### *3.1 Which target group should IEE III focus on?*

Multiple answers could be given for this question.

Principal target groups for IEE III, prioritised by the participants, were: public authorities with 64% of the replies, policy makers with 50% and building professionals with 47%.

Also given a high priority were citizens, energy agencies, the education system and investors, each of which were identified in ca. 42-45% of replies, while industry was ticked by 27% of the participants. This reflects the increasing involvement of industry and its importance for the energy/innovation challenge in H2020.

Utilities, transport agencies, manufacturers and retailers, transport operators and media received ca. 25% of the answers, while farmers/landowners received 18% and standards bodies 13%. 18% of the participants ticked all the above groups, 5% ticked "other", and 0.6% did not know.



### 3.2 *If public authority, at which level?*

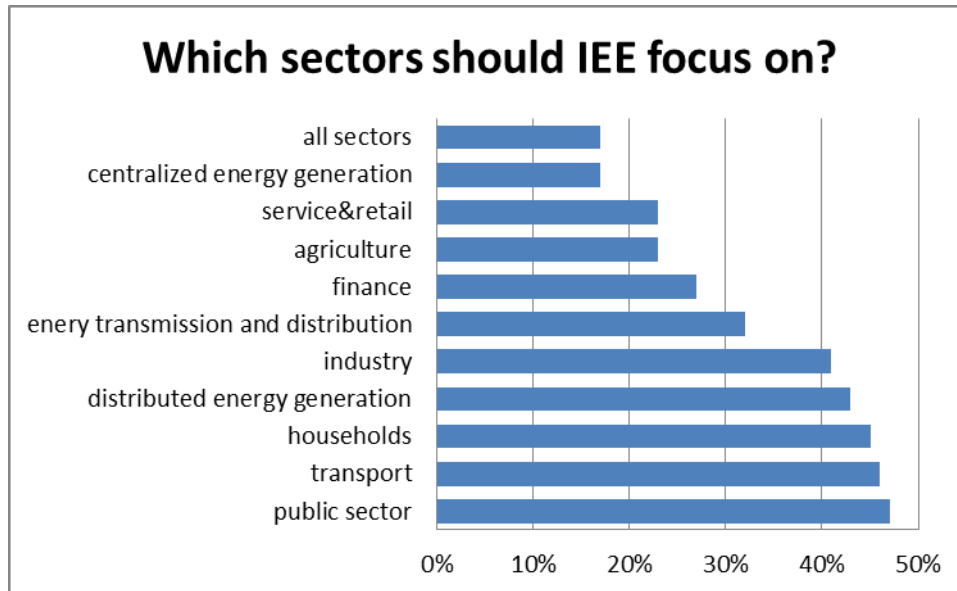
Regarding target groups, regional and local authorities were identified as having a higher priority, both with ca. 72% of the answers, while national authorities were ticked by 56% of participants.

### 3.3 *If others, please specify*

The participants suggested other target groups on which IEE III could focus, such as SME and (public/private)-research organisations, but also non-profit organisations, user oriented associations, chambers of commerce or business support centres. Further they mentioned energy distribution system operators, public/private housing companies, social economy enterprises, waste management companies, regional initiatives across borders, energy and transport agencies. Intelligent public energy procurement and non-formal education organisations were also suggested as possible target groups.

### 3.4. Which sectors should IEE III focus on?

The public sector received 47% of the answers, then transport just over 46% and households 45%, followed by distributed energy generation (43%), industry (41%) and energy transmission and distribution (32%). Fewer respondents wished to see a focus on finance (27%), agriculture (23%), service & retail (23%), centralised energy generation (17%), or all the above sectors (17%).



### 3.5 If you selected more than one sector in your previous answer, please indicate which one should be addressed in priority by IEE and why

Free text answers could be given here. The following sectors and/or keywords were mentioned most: public sector, transport, households, and industry. Others mentioned were buildings, distributed energy generation, renewable energy, finance, agriculture.

### 3.6. If other, please specify

The following other sectors were mentioned: local energy agencies, private and public housing companies/building owners, SME, building sector, urban planning, green public procurement, health, marine, service providers, transport, waste.

### 3.7 IEE II has moved away from awareness raising. Do you agree with this change in direction?

The opinion of the participants was divided on this question: 43% voted for and 42% voted against this change in direction. This division in opinion is also reflected in the answers from the countries of the respondents: a third of the countries voted for yes, in just over a third of the countries the opinion was divided, and just under a third of the countries voted no. A geographical grouping could not be found.

3.8 *IEE II has moved towards preparing the ground for new investments. Do you agree with this change in direction?*

The majority, more than 75% of the participants, agreed with the move towards preparing the grounds for new investments. 14% did not know and 9% did not agree with this change in direction.

3.9 *Please give your opinion on the relevance of the following three target areas to address the needs, issues and problems related to the wider use of sustainable energy in Europe*

### 3.9.1 Build capacity (skills development)

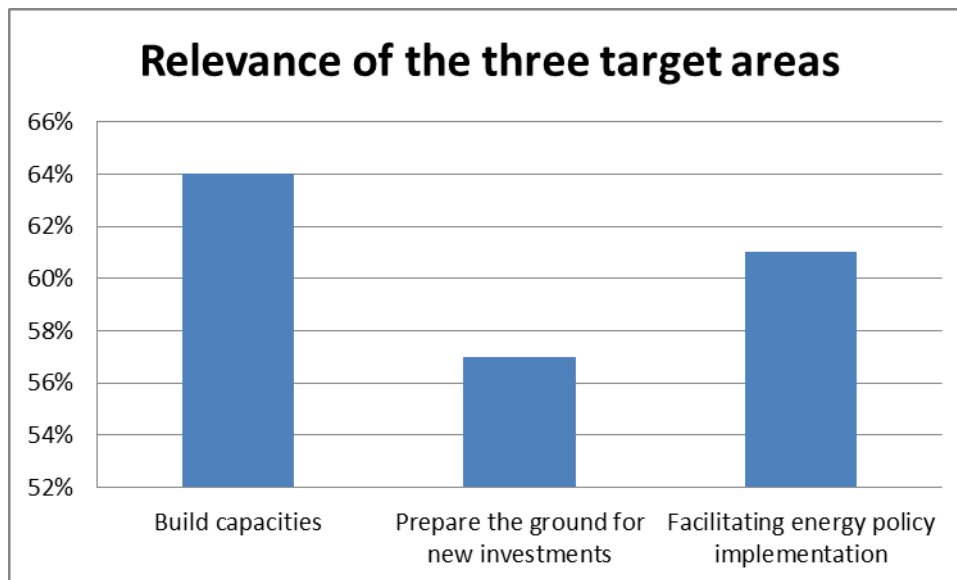
64% repliers suggested that capacity building (skills development) was highly relevant as a target area, while 30% believed that it was of medium and 6% of low relevance.

### 3.9.2 Prepare the ground for new investments

57% participants thought that preparing the ground for new investments was highly relevant as a target area, while 35% believed that it was of medium and 6% of low relevance.

### 3.9.3 Facilitating energy policy implementation

61% stakeholders replied that facilitating energy policy implementation was highly relevant as a target area, while 28% believed that it was of medium and 9% of low relevance.



3.10 *Are there any other areas apart from the ones mentioned in the previous question on which IEE III should focus?*

Participants could reply in free text format to this question. A large group of the replies underlined the importance of awareness raising and public acceptance, and suggested that IEE should continue to support these. Capacity building (including non-technical skills, skills for technicians, banks, and politicians) was mentioned very often again in this section.

Next to these, the following ideas came up repeatedly:

- more private investment, innovative financing, access to finance for SMEs, involve investors at early stage, reduce financial risks, ELENA for local authorities
- assist in policy implementation, removal of regulatory and administrative barriers
- market uptake of innovation, market replication projects/best practise, bridge gap between research and market, focus on market implementation of products and services, market integration of RES,
- mobility management
- local energy agencies, local/regional level
- build trust, stable framework, sustainable future, unproven long-term quality of EE products
- grid access for renewable power, grid management
- standardization for the benefit of SME, ESCO for SME, actions for SME, certification of equipment
- integration of systems (electricity with heating/cooling; weather and climate services with energy production; link resource, supply and demand), holistic approach
- catch countries lagging behind, take into account particularities of MS, more attention for new MS
- additional funding to complete research activities before launching the products on the market, focus on technological development, demonstration actions.

Other ideas of the participants were related to:

- technology development: hydrogen storage for RE, focus on building sector, focus on carbon saving, heating & cooling, waste recovery, increase technology performance at lower costs, energy storage, improve supply of biomass, decentralized energy generation, move to RES
- communication/information/ICT: promotion of technologies, dissemination, sharing best practise, online-tools for consumer information, smart energy networks, real time info for travellers, ICT, monitor restructured energy markets, find different/optimal schemes for energy consumption for individuals, monitor EU directives on the ground, data collection on energy use, promote quality management systems, measure EE improvements



- support for public authorities: green public procurement, intelligent public procurement, energy management for local authorities, Covenant of Mayors, concerted action for national renovation roadmaps, support for market deployment to reach 2020 targets, build clusters EU-NGO and non-EU, partnerships between regions

- programme innovations: focus on smaller initiatives, bottom-up approach, build market demand, research for holistic measures, establish codes of practise in national regulations, co-ordination of the supply chain, networking, move to organisational innovation

*3.11 To what extent do you agree with the following statement? The relevance/impact of the IEE programme should be increased by raising the budget per project (currently € 1-1.5 m). So bigger projects would get priority, though there would be fewer projects.*

Approximately 43% disagreed with this statement, while 22% agreed that the impact of the IEE programme should be increased by raising the budget per project.

*3.12 How can a strong synergy with the other priorities under Horizon 2020 as well as other EU funding programmes such as Structural Funds and LIFE + be achieved?*

The replies for this question were varied, spreading from general ideas concerning synergies over specific ideas for IEE, to suggestions for joint calls and for links and synergies with other programmes. An overview of the suggestions is given below.

The participants suggested keeping the main pillars of the IEE programme (capacity building, policy implementation support and access to finance) preferably the programme would be implemented, as before, by EACI, and there should be no links to other programmes.

In this context it was also suggested that different barriers (regulatory, technical, and financial) could be tackled in different funding programmes, and to avoid multi-funding of proposals. Some participants suggested creating more distinction between programmes.

Some participants suggested that IEE could act as incubator for large projects in other programmes. Others again preferred to continue to fund small/midsize projects. Some participants hoped to see a focus on demonstration actions with participants from research and big industries, while for others IEE should be the link between research, innovation, market development at national and at regional level.

Favouring an impact in local communities, including rural areas, was brought forward by some, while others hoped to get public authorities and national energy agencies more involved. In this context some participants thought that the co-ordination between EU and local authorities could be improved.

Some participants hoped to see niches targeted not covered by other programmes, while others suggested a clear focus on innovation.

Other participants wished for a continuation of IEE, because it lead to increase of SME innovation capacity, while however, also granting more access to capital and support for SME. The idea for an SME helpdesk was put forward.

The dissemination and capitalization of results was also on the mind of participants, they were suggesting among others to improve knowledge sharing, to improve the

dissemination of results, also outside usual stakeholder communities, to have a compulsory dissemination of results in countries with low intelligent energy development, and to give results more visibility, possibly via a website, more local media coverage or a database. An overview of all projects with the same topic or an overview of all programmes was suggested by some participants. Several participants wished to have an exchange of information through all phases. Some called for the collaboration of stakeholders/networking. Others hoped to increase the co-operation between funded projects. It was suggested to use the output of other programmes to identify future gaps.

The participants also shared some general ideas concerning synergies and mentioned the importance of transparency, clear boundaries and an added value for the EU. Some wished to see economies of scale and completeness; some hoped to obtain an added value on local level, others to make the activities measurable. Some participants warned about duplication, others again hoped for less bureaucracy.

Many participants suggested allowing funding under several programmes, or that programmes build on each other, and fund, in sequence, different steps, up to and including market uptake.

It was suggested that the evaluation should assess possible impact, and not only carbon savings, or that private investors could be appointed to selection committees. The co-ordination of the communication on performance indicators aligned with EU policies was mentioned. Some participants wished that projects should demonstrate synergies.

Some participants suggested that calls should embrace principles of sustainable development and holistic thinking; others wished that they should include criteria for compulsory use of RE technology, or that long-term goals for a 2050 roadmap should be set and monitored.

The participants were in favour of a well linked IEE, in particular with the Structural Funds, but also Life+, COSME and H2020. Some participants suggested linking the new programme with other EU programmes focusing on Southeast Asia and China.

Some participants were in favour of a centralized programme management approach including a single entry point, joint/thematic calls, single deadline, joint evaluation, single ranking, standard procedures, rules and funding rates, cross programme supervisory board, and the definition of cross cutting issues and innovative activities and global problems, and inter-programme co-operation including reviews.

### *3.13 Do you see other ways to change the programme that might increase its relevance/impact?*

The participants offered many different suggestions. Mainly, they suggested building on what has been done in IEE II, and developing its activities in specific directions, which, in their view, have not received sufficient attention until now. Many of the suggestions are specific in nature and they address quite different aspects of the programme. Several of the quite detailed suggestions could be helpful to the development of IEE III.

The suggestions could be grouped as follows.

## **Suggestion on IEE topics**

The following non-technological suggestions were given by participants to increase the impact of the programme:

- Market uptake; use balance between IEE funds and market impact as selection criterion; focus on replication of successful projects; introduce standards
- Focus on human capacities, focus on projects that can be identified by broad audience; emotional strategies for energy efficient transport modes;
- Recommendations from SET-plan as future focus area; look at failures of NEEAP.
- Policy: regulate energy performance; fund development of conceptual framework to better understand options of future energy policy support;
- Finance; implement ESCO in more projects in MS, recovery of carbon-allowance by cities under Covenant of Mayors; Covenant of Mayors should be priority; transformation of urban space/quality of life for children; focus on housing;
- Communication: data collection on energy topics; more co-operation and information exchange; create common methodological basis; continue to analyse which barriers are relevant; better communication on building sector; create network with national initiatives; develop a "brand" for intelligent energy; use social media; build citizen's trust;
- Create competition between countries; look at high efficient equipment; set cap on use of energy; introduce standards;

The participants thought that the capitalization of results was important and suggested continuing to improve the knowledge sharing, also outside the usual community. There were some suggestions for a website with results, local media coverage, or a database.

Some participants brought up ideas to focus on technological solutions to create more impact for the programme, for instance on hydrogen-storage for RE, on the transformation sector, on waste energy, on heating/cooling and/or renewable heat and solar heat, on CCS technologies, or to create energy networks or new power plants; finally some participants thought that research should be included and that "material science" was required for long-term breakthrough.

## **Suggestions for the implementation of IEE III**

The participants also had suggestions concerning the IEE Work Programme and its implementation, for instance to keep annual work programmes, have fewer priorities, allow demonstration pilot projects, improve the continuity of projects, shift from one-off action to permanent initiatives or organize targeted calls for transferring best practise to other countries/sectors. Other participants thought of expanding the scope of the programme, organizing additional strategic calls, two annual calls for smaller projects or organizing open calls, or to include practitioners and public authorities in the selection process and create the possibility for proposals to address several priorities.

Concerning the budget the participants expressed the wish to see an own budget line for IEE. In view of the size of the budget itself, the suggestions were varied, some

participants would like to have an increase of the budget and fund larger projects, or increase the budget per project and the number of projects, while others prefer to have small projects and others again would like to increase the project duration. Finally there were suggestions to combine with subsidies for investment and to have project clusters with frequent exchange.

The participants had some suggestions on how to improve the impact of the programme in relation to the target groups and participants of the programme. Some wished to keep diversity in stakeholders including vertical representation of the sectors, or have more participation from new MS; others would like to involve more citizens and NGO; some participants thought that more involvement of industry/large companies could be beneficial, while others wished to involve more SME to have a local impact.

There were some suggestions concerning the management of costs in the programme. Some participants thought about 100% funding for non-profit organisations and others about more flexibility in grant spending. Some participants suggested looking into possibilities for increased funding for small energy services companies, which would take into account the rapidly growing activity of small scale ESCO's.

The participants also had suggestions concerning the administration of the programme. The participants hoped to have simpler application formalities, in particular for SME, a shorter time-to-grant, a simplified reporting system, mid-term workshops for evaluation of performance, a standard IEE consortium agreement for co-ordinators, more quality control, more/other indicators and measurable impacts.

Some participants wished to improve the communication with EU staff on the performance of project and/or have more EACI staff attend project meetings for feedback and guidance; some also hoped for more co-ordination between co-ordinators and partners; finally a help desk to help choose for which programme a proposal suits best, was suggested.

## CONCLUSIONS AND NEXT STEPS

A large majority of the participants, including those who have never received a grant, considered that a follow-up of IEE II was needed to address the removal of non-technological barriers hindering the deployment of energy efficient and renewable energy technologies. This is consistent with the results of the final evaluation of IEE II and the ex-ante evaluation of a successor to the IEE II programme.

The main barriers identified by the participants were lack of knowledge and skills, lack of financing and policy related legislative and administrative barriers.

The participants saw possible ways of overcoming these barriers with awareness raising campaigns/capacity building, securing financing or getting help with the implementation of policies.

The principal target groups prioritised by the participants were public authorities, policy makers, building professionals and SMEs.

Regarding public authorities as target groups, regional and local authorities were identified as having a higher priority than national authorities.

As other target groups than the ones above, research organisations were mentioned more often than non-profit organisations or chambers of commerce.

According to the participants, IEE should focus on the public sector, transport and households as priority, then distributed energy generation, industry and energy transmission and distribution.

The opinion of the participants was divided on the question of whether the move away from awareness raising was right.

The majority of the participants agreed with the move towards preparing the grounds for new investments.

The majority of respondents thought that capacity building (skills development) was highly relevant as a target area.

The majority of respondents thought that facilitating energy policy implementation was highly relevant as a target area.

The participants confirmed that next to capacity building, new investments and energy policy implementation, awareness raising was a very important area for IEE to focus on.

Around one fifth of the participants agreed that the IEE programme should go towards raising the project size.

The repliers gave varied suggestions concerning synergies with other priorities of Horizon2020 or other EU funding programmes.

The participants had many ideas for how to change the programme in order to increase its relevance/impact, including priority topics and suggestions for the implementation of IEE III.

### Next steps

The inputs from this stakeholder consultation will be taken into consideration in shaping the IEE II successor programme – the 'Market Uptake of Energy Innovation' priority area of Horizon 2020's Energy Challenge on Secure, clean and efficient energy.

Furthermore, these consultation results will be reflected in the forthcoming Communication on Energy technologies and Innovation, laying the long-term vision for decarbonisation of the energy system.