

Joint CIP Committees Meeting

CIP Performance Report

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This report provides a summary of the overall performance of the Competitiveness and Innovation Framework Programme (CIP)¹. It was primarily written for the Member States' representatives in the CIP Programme Committees² but is also aimed at a wider audience interested in the impact of the programme.

The report, which has been drafted by Commission staff responsible for the management of the CIP, does not cover all the actions financed under the CIP since 2007. It is an updated version of the CIP Performance Report that was published in early 2012³. The three sub-programmes of CIP⁴ have their own specific reports where more detailed information is provided on the activities carried out.⁵

It should be taken into account that, whereas many actions have been completed and have therefore already produced visible impacts, others started being implemented at a later stage and their impact may not yet be (fully) visible. This is not necessarily an indication of bad performance — the final picture will only be available when the programme has been fully implemented around 2017.

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¹ http://ec.europa.eu/cip/index en.htm.

² The Entrepreneurship and Innovation Programme Committee (EIPC), the Information and Communication Technology Policy Support Programme Committee (ICT-PSP Committee) and the Intelligent Energy Europe Programme Committee (IEEC).

³ http://ec.europa.eu/cip/files/cip/cip-performance-report en.pdf.

⁴ The Entrepreneurship and Innovation Programme (EIP), the Information and Communication Technology Policy Support Programme (ICT-PSP) and the Intelligent Energy Europe Programme (IEE).

⁵ http://ec.europa.eu/cip/documents/implementation-reports/index en.htm.

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1. INTRODUCTION

The Competitiveness and Innovation Framework Programme (CIP)⁶ is the key EU funding programme to address the challenges of EU industry during the 2007-2013 period.

With small and medium-sized enterprises (SMEs) as its main target, the CIP supports innovation activities (including eco-innovation), provides better access to finance and delivers business support services to SMEs in all parts of Europe. It encourages better take-up and use of information and communication technologies (ICT) and helps to develop the information society. It also contributes to the increased use of renewable energies and the promotion of energy efficiency.

As confirmed by the CIP final evaluation,⁷ **CIP remains highly relevant in the context of the recent economic crisis.** The CIP has made it possible to finance a number of growth-enhancing measures essential to the whole economy and especially to European small and medium-sized enterprises (SMEs).

The CIP is divided into three operational programmes:

- the Entrepreneurship and Innovation Programme (EIP);
- the Information and Communication Technology Policy Support Programme (ICT-PSP);
- the Intelligent Energy-Europe Programme (IEE).

A total of €3.6 billion was earmarked for the CIP for the period 2007-2013.

This report gives a broad overview of the main achievements of the CIP since 2007. Its aim is to show concrete results and successes achieved at the end of the programme period. More detailed information is provided in the specific performance reports, and in the final evaluations of the CIP and its three sub-programmes ⁹.

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⁶ http://ec.europa.eu/cip/index en.htm.

⁷ http://ec.europa.eu/cip/files/cip/cip final evaluation final report en.pdf.

⁸ The availability period of loans under the CIP financial instruments may run until September 2017. A complete picture of the performance of the programme can therefore not be provided before 2017.

⁹ The latest performance and evaluation reports of the CIP and its three sub-programmes, as well as the annual beneficiaries and implementation reports, can be found here: http://ec.europa.eu/cip/documents/implementation-reports/index en.htm.

2. Entrepreneurship and Innovation Programme (EIP)

2.1. Introduction

A key aim of the Europe 2020 Strategy — the EU's growth and jobs strategy for this decade — is to improve the competitiveness of European businesses and create more jobs and prosperity in the Union. The Entrepreneurship and Innovation Programme (EIP) – one of the three specific programmes of the CIP – is the main EU funding programme to address the competitiveness and innovation challenges industry faces. More than €2 226 million have been committed for the EIP during the period 2007-2013 to achieve the following six objectives:

- access to finance for the start-up and growth of SMEs and investment in innovation activities;
- creation of an environment favourable to SME cooperation, particularly in the field of cross-border cooperation;
- all forms of innovation in enterprises;
- eco-innovation;
- entrepreneurship and innovation culture; and
- enterprise and innovation-related economic and administrative reform.

The EIP has made it possible to finance a number of growth-enhancing measures essential to the whole economy and especially to European small and medium-sized enterprises (SMEs). This report outlines some of the main achievements, concrete results and successes of the EIP. Overall the data confirms that the programme is on track to achieve the anticipated impacts.

2.2. Main achievements

Improving access to finance Major market gaps have been identified with regard to SMEs' access to finance. The **financial instruments** in the form of guarantee schemes, risk-sharing facilities and equity and quasi-equity support were designed to facilitate access to loans and equity finance for small businesses and to act as catalysts for public and private investors. The positive impact on the economic situation and business prospects of participating SMEs takes the form of stronger business growth and employment sustainability. With a budget of €1.1 billion for financial instruments, the EIP has helped to mobilise over €14 billion of loans and €2.3 billion of venture capital for SMEs across Europe. Under its SME guarantee facility (SMEG), the EIP has helped more than 240 000 SMEs to access loans. These loan guarantees are used in cases where the entrepreneur or the small enterprises do not have sufficient collateral to offer and the bank will not provide a loan. 90% of the beneficiaries have 10 or less employees and this is the category that has most difficulties to get a loan. The average guaranteed loan is about €65 000. The estimated number of jobs created under SMEG is more than 240 000¹⁰.

¹⁰ Estimate based on the methodology outlined in the Final Evaluation of the Entrepreneurship and Innovation Programme, Final Report, April 2011. No more recent information is available as of September 2013.

Providing business support services

Despite the existence of the Single Market, doing business across borders in Europe is still subject to significant barriers for SMEs. The Enterprise Europe Network brings together business support organisations from more than 50 countries. They are connected through powerful databases and know Europe inside out. What's more, they have been working together for years, some even for decades. The Enterprise Europe Network has been in contact with more than two million SMEs each year. More than half of the SMEs which used the services of the Enterprise Europe Network confirmed that they had accessed new markets or developed new products. For example for the partnership services, on average, the impact on turnover was about €200000 per company. The total impact on sales growth is estimated at €625 million. Between 2008 and 2012, 4 429 jobs have been created by firms under partnership agreements. The trend of the increasing number of partnerships per year is expected to further continue in the coming years.

The Enterprise Europe Network provides integrated services to SMEs through its more than 3 000 staff in 600 regional offices. ¹¹ The Network helps SMEs to access market information, to find potential business and technology partners and to participate in the 7th Framework Programme for Research and Technological Development (FP7). It offers advice on funding and internationalisation services. More than 25 000 promotion, information, match-making and brokerage events have been organised; 9 275 cross-border partnership agreements between companies have already been concluded through the Network. The number of partnership agreements between SMEs is growing steadily. Some 20% of technology profiles have led to formal technology transfer agreements brought about by the Network. The success rate for turning research profiles into agreements to submit joint proposals under FP7 stands at almost 45%.

In 2012 there were 78 framework partnership agreements in place from EU27 and 14 from CIP participating countries with specific grant agreements signed to cover the operational period 2011-2012. Four additional consortia were added in 2012 (India, Canada Morocco and Eastern China) resulting in 22 cooperation agreements signed with third countries. Furthermore, conditional terms for associated and affiliated membership were signed with 16 (+4) and 10 (+1) organisations respectively as well as technological partnership agreements with JRC, EUREKA, CERN and ESA. All of the framework partnership agreements are managed by the Executive Agency for Competitiveness and Innovation (EACI).

The Network is also a very effective mechanism in receiving feedback from SMEs. Over 25 000 contributions from SMEs have been collected, in particular on public consultations (e.g. Top 10 Burdensome legislations, business-to-business Alternative Dispute Resolution).

Intellectual Property Rights (**IPR**) have the potential of stimulating research, innovation, inventiveness and creativity. Small and medium-sized businesses are frequently not able to make the most of their creativity, because they do not incorporate IPR issues into their business strategies. Public support is often provided on a national basis alone or is entirely lacking. EU-level projects were therefore initiated to improve IPR support.

During its three years of operation (2007-2010) the **IPeuropAware project** organised 39 seminars on IPR enforcement and awareness-raising in 15 countries with more than 400

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¹¹ The network's geographical coverage includes EU Member States, candidate countries, and other third countries. For more information, see http://een.ec.europa.eu.

participants, tested 72 new IP services and tools on SMEs, which were then implemented by the national IP offices, trained around 250 IP officials on enforcement issues, advised more than 4 000 universities, public research organisations and SMEs and created a pan-European website with input from nearly all the European National IP Offices.

In addition to the IPR support in the EU, a dedicated helpdesk was set up to provide similar support for EU SMEs doing business in China.

The China IPR SME Helpdesk provides training for European SMEs on how to protect their IP when doing business in China. Since its creation in 2008, it has served some 80,000 website users and offered over 1000 private confidential consultations. As a result of Helpdesk advice, 75 % of the surveyed users of the present Helpdesk edition took a specific course of action (e.g. retaining lawyers, registering trademarks, undertaking administrative enforcement). This has increased the likely hood of effective protection for European SME-owned IPR, as well as offering protection against infringement, something which could potentially inflict substantial damage costs.

Based on the success of the China IPR SME Helpdesk, a similar ASEAN IPR SME helpdesk has been created in 2013 and another MERCOSUR IPR SME Helpdesk is currently being established.

Support all forms of innovation

The programme is also instrumental in supporting innovation policy itself and making sector conditions as well as business support more innovation-friendly.

Throughout 2006-2012, Europe INNOVA has been the laboratory for the development, testing and promotion of new tools and instruments in support of innovation, with a view to helping innovative enterprises to innovate faster and better. Thus, it has served as a pan-European platform for innovation professionals, enabling them to discuss, develop, test and exchange 'better practices' in support of innovative SMEs and to contribute to a better understanding of the innovation patterns in different sectors. In its second phase, 2009-2012, Europe INNOVA was focused around three European Innovation Platforms (IPs) addressing issues related to knowledge-intensive services (KIS) cluster cooperation and eco-innovation. Under each IP, public-private partnerships developed and tested new innovation support services for SMEs.

The KIS-IP succeeded in the setting up three new sector specialised venture capital funds and two new grants and voucher programmes. For what concerns the use of renewable energy sources, KIS-PIMS has accelerated cost driven innovation in these services with real-life testing in Austria, Finland and France. 233 project ideas have been analysed, of which 52 benefitted from a business analysis of the project idea by external experts through a voucher scheme.

Demonstrating ecoinnovation solutions The programme has also supported the market application of more than 200 ecoinnovation projects in various sectors such as recycling, green business, the food and drinks sector, water and the buildings sector. These projects have an added replication effect, by showing to the market the growth potential of these eco-innovations. This grant scheme is highly popular among SMEs, being an effective means of addressing the needs of innovative SMEs in the sector. Approximately 65 % of participants were SMEs of which 80% are small and micro enterprises. The programme has a significant leverage effect, given that participants are required to provide 50 % of the co-funding.

A dedicated study published in May 2013 outlined the results and achievements of the initiative. It revealed that, despite its young age with first projects starting in 2009, economic impacts are already substantial; 30 % of the projects have already led to commercial benefits. Project leaders indicate an average leverage factor of around 20 (€

1 of public investment on Eco-innovation leads to a gross revenue leverage factor of x 20, 2 years after the project ends). The average net employment generation is around 8 persons (full-time) per project. Environmental benefits result in a monetised benefit of $833M \in (1 \in \text{of public investment has generated} \in 10$ in environmental benefits) and a global economic and environment benefit of $\in 1.6$ billion.

Improving framework conditions for SMEs

The EIP is also concerned with fostering better framework condition for SMEs. A key component is to facilitate exchanges of best practices between the CIP participating countries. For example, the EIP has financed ways of measuring and supporting Member States' progress in simplifying the administrative procedures involved in starting up a small business, working towards targets set by the Competitiveness Council. This takes the form of annual checks and of identifying and exchanging good practices between the participating countries. The result has been a fall in the average time and cost required to start a company in the EU.

There has been a major reduction in the time taken and the costs involved in starting up and running a small business. In 2012 the average time and **cost of starting up a private** limited company was 5.4 days and \in 372, compared to 12 days and \in 485 in 2007; this improvement is partly due to best practice exchanges and benchmarking financed by the EIP.

Improving sectoral conditions

The EIP programme helps to **improve framework conditions for certain industrial sectors**. Unlike direct grants to SMEs, policy support measures play a part in changing the regulatory environment and thus have a significant influence on all the businesses in a specific sector.

As an example, EIP has helped to boost the competitiveness of the **construction** industry, which occupies an important place in the European economy. Not only does this industry generate around 10% of the GDP, it also provides 20 million direct jobs, mostly in micro and small enterprises. The programme has supported various competitiveness analyses of the construction sector. The conclusions and recommendations provided **key input to the preparation of Communication** COM(2012)433 on "Strategy for the sustainable competitiveness of the construction sector and its enterprises". The new regulatory environment will seek greater convergence in the way EU legislation is implemented at national level, facilitating cross-border services, reducing the administrative burden, and providing more opportunities for innovative solutions.

The study on the **Lead Market Initiative and sustainable construction** developed a generic 'burden catalogue' structure with deep analytical and qualitative insights into how information obligations translate into administrative burdens for companies. The conclusions and recommendations of the study feed into the future sustainable competitiveness agenda in the construction sector in terms of 'smart' regulation and administrative burden.

Another example is the programme to improve framework conditions of the tourism sector by supporting more than 30 **transnational tourism project partnerships**, contributing to the diversification of the European tourism offer of transnational/pan-European thematic products and enhancing the visibility of Europe as a destination on third country markets via an international tourism communication campaign. Furthermore, it greatly enhanced the socio-economic tourism knowledge base at European level by supporting, inter alia, the European Virtual Tourism Observatory, the European Tourism Indicators Systems, studies analysing the impact of the Cultural Routes on SMEs, the impact of the EU tourism policies on the sectors and its enterprises,

as well as the impact of visa policy facilitation on tourism, and the initiative EDEN – European Destinations of Excellence, which aims to promote sustainable tourism destination models and to enhance the visibility of emerging and lesser known tourist destinations in Europe.

Cycling tourism is a great example of sustainable, environmentally friendly tourism. With the programme, the Commission is raising awareness about its important role and is supporting the development and promotion of cycling routes through Europe by awarding grants to selected projects and initiatives. In 2011, the Commission supported the development of the EuroVelo.com portal which aims to promote and increase visibility of EuroVelo Network of cycle routes as well as to contribute to the promotion and development of more sustainable and responsible cycle tourism. In 2010, grants were awarded to 6 projects to improve the sustainability and competitiveness of European cycling tourism. One of them is the Iron Curtain trail. This 6 800 km cycle track - recognised as EuroVelo route no 13 – follows the former border "Iron Curtain", stretching from the Barents Sea to the Black Sea, combining European culture, history and sustainable tourism.

Monitoring policies, providing analysis and benchmarking

The EIP has also supported a wide range of policy-related measures such as **statistical analysis and benchmarking; policy monitoring and analysis**; workshops and exchanges of best practices between policy makers.

In particular, the Small Business Act (SBA) governance system was put in place in 2011 to promote the exchange of best practices and to monitor the implementation of the SBA. The governance structure is simple and effective: it comprises of the **Network of SME Envoys** chaired by the EU SME Envoy; this network meets four times per year and deals in concrete terms with all objectives of the SBA. It is complemented by an **annual SME Assembly** in the second half of the year; the Assembly takes stock and looks forward to the following year; it serves as a wide forum for SME organisations, SMEs themselves, policy makers and other stakeholders.

A second example is the **European Innovation Scoreboard, which** makes a yearly comparison of the innovation potential and performance of Member States and selected other countries, drawing on statistics from a variety of sources, primarily EUROSTAT and the OECD.

The reports are widely used by national and regional stakeholders in the EU in innovation policy related conferences and range of policy and academic workshops. The scoreboard is a reference source on innovation performance in the European innovation policy community. Its results are used as a background for press articles on innovation issues. It also benchmarks EU innovation performance against that of major economic partners (e.g. the US, China, Brazil and Russia), so its results are used in a variety of international meetings as background documents for expert and political meetings.



Another example of policy-related measures are the EU SME annual reports and the SBA country factsheets¹². The series of annual reports on the most important SME trends in the EU and the set of annually updated SBA country factsheets for a total of 37 countries (EU-27 Member States plus 10 non-member countries) are the result of extensive discussions and exchanges since 2009. These recurrent publications have helped to establish a central monitoring tool for measuring the implementation of the Small Business Act (SBA). At the same time, they have greatly helped to raise the awareness of the general public on SME issues, and SBA implementation in particular.

In the area of sustainable industrial policy, a number of studies were launched to identify the potential of sectoral approaches to limiting CO_2 emissions in a post-2012 international framework. These studies significantly contributed to the EU position on sectoral crediting in international climate change negotiations. Options for a possible mandate for a more formal type of business engagement in the international climate change negotiations were also identified. The first ideas were presented at the Copenhagen climate change conference in December 2009 and the final report at Cancun in December 2010.

The Sustainable Industry Low Carbon (SILC) scheme was launched in 2011 to fund innovation measures that help energy intensive manufacturing and process industries to reduce their greenhouse-gas emissions while maintaining their competitiveness. SILC cofinances sector-specific or cross-sector industrial projects carried out by industry-led consortia. This is planned to be followed by SILC II, which aims at funding large scale demonstrators to reduce the specific greenhouse gas emission intensity of selected industry sectors from 2014 onwards.

The analysis of European industry formed the basis for the Commission Decision on sectors at risk of carbon leakage. That was essential in ensuring the competitiveness of EU industry while maintaining the environmental effectiveness of the EU emissions trading scheme. These studies made a significant contribution to the EU's leadership role on international climate change negotiations.

Boosting entrepreneurship The programme has **boosted entrepreneurship and a culture of innovation** by its initiatives in the areas of **entrepreneurship education**, female entrepreneurial activity and the **Erasmus for Young Entrepreneurs** exchange programme, developed by the Commission and countries participating in the CIP. At present, the Commission supports sixteen Europe-wide projects in the field of entrepreneurship education. They will serve as models for introducing novel methods of entrepreneurship education in the Member States. The first nine projects are estimated to involve around 70 000 students and young people and some 900 teachers. However, the added value is not limited to the number of direct beneficiaries, but lies also in the creation of new models that can be widely replicated.

Also as a result of initiatives taken at European level in the area of entrepreneurship education, a number of Member States have significantly increased their efforts. According to a survey published in 2012^{13} , a specific strategy to promote entrepreneurship education was adopted in Denmark, Estonia, Lithuania, the

¹² http://ec.europa.eu/enterprise/policies/sme/facts-figures-analysis/performance-review/#h2-1.

¹³ Entrepreneurship Education at School in Europe, European Commission March 2012. http://eacea.ec.europa.eu/education/eurydice/documents/thematic_reports/135EN.pdf

Netherlands, Sweden, Norway, Wales (UK) and the Flemish part of Belgium. Moreover, other countries include now entrepreneurship education as part of their national lifelong learning, youth or growth strategies.

Female entrepreneurship is promoted by the European Network of Female Entrepreneurship Ambassadors and the European Network of Mentors for Women Entrepreneurs. The Ambassadors aim to have successful entrepreneurs campaigning on the ground to encourage women of all ages to set up their own businesses and become entrepreneurs. The Mentors support enterprises owned and run by women during the first few crucial years, by providing women entrepreneurs with advice and support with the start-up, functioning and growth of their businesses.

The European Network of Female Entrepreneurship Ambassadors has campaigned in 22 Member States to inspire women to set up businesses. 101 new women-led companies were created in the first year alone. Furthermore, the October 2012 European SME Week Summit focused exclusively on women's entrepreneurship, with more than 650 participants. In addition, the European Network to Promote Women's Entrepreneurship (WES) which is composed of government representatives responsible for the promotion of female entrepreneurship from 31 European countries, has also been established.

The Erasmus for Young Entrepreneurs cross-border exchange programme gives new or aspiring entrepreneurs the chance to learn from experienced entrepreneurs running small businesses in other CIP participating countries. Almost 2 000 exchanges have been initiated since the programme was launched in 2009.

Reducing administrative burden

The programme has also played a part in economic and administrative reforms, e.g. by helping to reduce regulatory and administrative burdens. The Commission adopted in 2007 an Action Programme for Reducing Administrative Burdens on business stemming from EU legislation by 25% by 2012. By the end of 2012, the Commission had proposed measures that could lead to savings of 33% (more than €40 billion). The Council and European Parliament had adopted measures estimated at producing a reduction of administrative burdens by 25% (€30.8 billion), so reaching the amount targeted in the Action Programme. 14 A High Level Group on Administrative Burdens was set up to advise the Commission on this work, funded by the EIP. By September 2013, the Group had produced almost 40 opinions on aspects of administrative burden reduction. In connection with the launch of the Regulatory Fitness and Performance Programme (REFIT) in December 2012, the mandate of the Group was extended to October 2014.

¹⁴ For a detailed overview of the results see the final report on the Action Programme available on http://ec.europa.eu/dgs/secretariat general/admin burden/result burden/result burden en.htm.

3. Information and Communication Technology Policy Support Programme (ICT PSP)

3.1. Introduction

The Information and Communication Technology Policy Support Programme (ICT PSP) aims to stimulate innovation and competitiveness, and accelerate the development of a sustainable, competitive, innovative and inclusive information society. It supports activities to accelerate innovation and implementation of ICT-based services and systems through the wider uptake and better use of ICT and the exploitation of digital content by citizens, governments and businesses.

Particular emphasis is put on areas of public interest, given their weight in the European economy, and the unique solutions that ICT can bring to the challenges facing society, such as health and ageing, inclusion, energy efficiency, sustainable mobility, access to cultural heritage, digital libraries and e-learning, as well as efficient public administrations.

Public policy has a leading role to play in these areas, as stressed through the EU strategy and EU policy goals expressed first in the i2010¹⁵ initiative, at the launch of the CIP, and now in the Digital Agenda for Europe.¹⁶

The major hurdles for a wider and better use of ICT in those areas include the unavailability of ICT-based services, the lack of interoperability of solutions across the Member States, as well as the market fragmentation of the information space and of ICT-based solutions.

The ICT PSP helps overcome barriers to the development of an information society. It aims to steer key stakeholders towards the EU policy goals. In doing so, the programme also helps develop markets for innovative ICT-based solutions and for the innovative use of digital content, namely in areas of public interest. This will open a wide range of new business opportunities, in particular for innovative SMEs that provide such solutions.

The ICT PSP supports mainly pilot actions aimed at solving interoperability issues and validating innovative ICT-based services in real settings. It also supports networking actions to develop experience sharing and consensus building. These actions are complemented by benchmarking the development of the information society in Europe, and supporting policy development and coordination through analysis and awareness raising actions.

The ICT PSP covers technological and non-technological innovations that have moved beyond the final research demonstration phase. It does not support research activities, but may cover, when needed, technical adaptation and integration work in order to achieve the objectives.

The ICT PSP has a budget of €728 million for the period 2007-2013. In addition, third countries participating in ICT PSP¹⁷ contribute financially.

¹⁷ Croatia, Iceland, Liechtenstein, Montenegro, Norway, Serbia and Turkey.

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http://ec.europa.eu/information_society/eeurope/i2010/index_en.htm.

http://ec.europa.eu/information_society/digital-agenda/index_en.htm.

3.2. Main achievements

After six years in operation, more than 210 actions will have been supported through the ICT PSP, representing nearly €50 million.¹⁸

Overall, public bodies represent 41% of participants in the proposals of the Call. SMEs represent 19% of the participants, and the remainder (40%) comprises other private entities such as intermediaries or user associations.

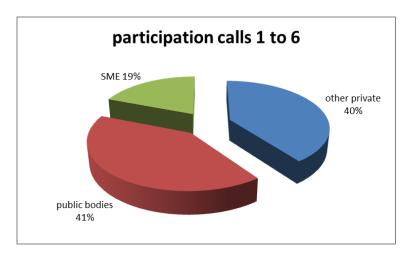


Figure 1: Participation in ICT PSP (over 2007-2012)¹⁹

The majority of the ICT PSP projects are still running, and it is premature to draw conclusions about the results and final impact.²⁰ However, several on-going projects are showing promising developments.

Progressing towards pan European services The most evident impact is the **improved interaction and cooperation** between public administrations, citizens and businesses, which owes much to the support given to **large scale pilot projects, bringing stakeholders,** such as decision makers and public authorities in Member States, together with service providers and reference centres across the EU, to address interoperability issues harmonising approaches and progressing towards **pan European services**.

The **PEPPOL** pilot project builds automated and simplified processes for procurement. By testing and validating solutions, front-runner countries not only save costs on procurement processes but make it easier for companies to bid for public sector contracts anywhere in the EU, thus making an important contribution to the single market. 11 countries are taking part in the pilot actions. Estimates vary, but based on experience from Sweden and Portugal, the total savings from simplified electronic procurement on a European level roll-out may be as high as €50 billion.

¹⁸ Seven calls have been organised from 2007 to 2013. The seventh call is still under negotiation.

Call 7 participation is still under negotiation; numbers are based on the implementation report. Based on former experience, the proportion of SME participants is likely to drop when contracts are signed, as the ratio in the implementation plans is based on the proposition. In FP7, we saw a decrease of some 30 % between self-declarations at proposal level and checked data at project level.

CIP ICT-PSP Evaluation Report (2011): http://ec.europa.eu/cip/files/cip/docs/ict_psp_implementation_report_2011.pdf.

The **epSOS** pilot project validates and improves patient summaries — which include general and medical information about patients and their current medication — and ePrescriptions, **to make the required medicine available in any foreign pharmacy** participating in the pilot, across EU borders. There are **23 participating countries** (including three associated countries).

The **STORK** project offers an interoperable solution for electronic identity (eID) based on a distributed architecture that will pave the way **towards full integration of EU eservices.** The solution provided is intended to be robust, transparent, safe to use and scalable. The **pilot is being tested and implemented through a consortium of 32 members from national governments**, academia and research, non-profit and private organisations.

The **e-Codex e-justice** project has beneficiaries from over 20 Member States and associated countries. The project finished the stock taking phase and definition of the technical requirements during the first half of 2012 and it has now reached the piloting phase. This phase starts with cases from the domain of civil law, where the focus will be on citizens and legal professionals communicating with courts, mostly through the European eJustice Portal. Another set of use cases, centred on criminal law, will start later. It will build on results from other pilots as PEPPOL and SPOCS.

Europeana, the online access point to Europe's cultural heritage with an EU-wide network of contributing institutions, has moved from a prototype to an operational service. From a prototype launched in 2008, it has grown over just three years to become a flagship of the digital agenda and a reference point for similar initiatives elsewhere (e.g. digital library of America). Almost 2000 institutions are involved, making available 20 million objects from e.g. National Archives, film archives, TV broadcasters and local cultural institutions. In 2011 it had more than 5 million visits, and there has been a steady and impressive growth in the volume of page hits on Europeana.eu since the autumn of 2011²¹. The ultimate aim is to make any digitised cultural content available through Europeana by 2020, and to stimulate the development of creative services through it. The projects starting after Call7 will be developing services using Europeana.

Promoting innovative ICT based services

Stakeholders from across the value chain have been engaged in **piloting innovative** services in areas of public interest. Portfolios of pilot projects have been built to validate, demonstrate and develop experience, and collect user-based evidence, showing the benefit of innovative ICT-based services in areas such as services for the ageing population and inclusion, energy efficiency and collaborative transport systems.

These portfolios aim to scale up experience gained in innovative services from small scale implementation in front-runner countries and regions, to **large experimentations** where solutions have been tested in real life scenarios on a significant scale, addressing a range of issues including organisational, legal aspects, security and training needs. This helps to build consensus on common approaches, methodologies, standards for ICT-based services across the EU and facilitate further replication and broader deployment across Europe.

²¹ http://ciber-research.eu/download/20130623-Europeana 2013 usage and performance update.pdf.

ICT for ageing well

The changing demographic towards an ageing population brings with it far-reaching changes in our society. ICT can help elderly individuals to improve their quality of life, stay healthier, live independently for longer, and counteract reduced capabilities which are more prevalent with age. ICT can enable them to remain active at work or in their community. 13 pilots have been launched involving more than **40 regional pilot sites** and **15000 to 20000 end users.** They cover topics such as independent living of elderly with multiple chronic diseases, cognitive impairment, integrated care, and fall prevention and detection.

Beyond the experience gained in each pilot, the portfolio help in raising awareness and sharing good practice; building consensus via stakeholder cooperation; promoting policies to stimulate innovation in the public sector and overcome technical and regulatory barriers to market development; and accelerating take-up and boosting innovation.

Since Call4 (projects started in 2011), several projects relates to ICT for Smart Cities, including energy efficiency and smart mobility, have also been funded. In this case CIP-PSP has mainly supported piloting actions and some thematic networks. The portfolio of projects is as usual focussed on large experimentation and testing of innovative solution in real context. Just in 2012, ten new projects have been launched with different aims, spanning from energy reduction in public buildings to the definition, implementation and testing of large scale platforms for e.g. the integration of new sensors, emerging social networks and the adaptation of services to specific environments as well as the development of smart city services by SMEs.

4. INTELLIGENT ENERGY-EUROPE PROGRAMME (IEE)

4.1. Introduction

The European Union has committed to the '20-20-20' objectives: reducing greenhouse gas emissions by 20%, increasing the share of renewables in energy consumption to 20% and improving energy efficiency by 20%, all by 2020. To put this into effect, the EU has adopted a comprehensive set of legislation and initiatives, together with the **Intelligent Energy - Europe II Programme (IEE II)** which contributes to achieve these objectives by supporting actions:

- to foster energy efficiency and the rational use of energy resources;
- to promote new and renewable energy sources and support energy diversification;
- to promote energy efficiency and the use of new and renewable energy sources in transport.

IEE II is the only EU funding instrument exclusively dedicated to sustainable energy. The total budget from 2007 to 2013 is about €730 million, mostly disbursed in the form of grants and tenders to stakeholders in sustainable energy, i.e. public and private organisations across Europe committed to collaborating towards a cleaner, more competitive and more secure energy future. IEE II projects will continue to deliver results until 2020.

A wide range of technologies and methods exist to improve energy performance, supply renewable energy sources and reduce emissions. However, market barriers prevent them from reaching their full potential. By creating a link between technology, innovation and the market, with its potential for mass deployment, the IEE programme sets its sights on activities that accelerate the market uptake of energy innovations.

The IEE II programme has supported actions which have EU added-value, and which aim to develop, apply, share and replicate sustainable energy solutions with a high leverage factor in EU sustainable energy markets across disciplines and levels of governance. The priorities for such a solution have been to accelerate progress towards the 2020 energy targets, by implementing actions which:

- create favourable market conditions;
- shape policy development and implementation;
- prepare the ground for investments;
- build capacity and skills;

• inform stakeholders and foster commitment.

The final evaluation of IEE II,²² published in June 2011, found that the programme was relevant and useful, that it responded to the evolving needs, problems and barriers related

²² IEE final evaluation: http://ec.europa.eu/cip/files/docs/2011 iee2 programme en.pdf.

to sustainable energy issues in Europe, and that overall its actions were of good quality. It concluded that the programme was a useful instrument that should be continued.

IEE II funds actions which facilitate the market uptake of sustainable energy technologies and approaches, including project development assistance facilities. Up to the end of 2012 the IEE II has supported more than 370 actions, mainly through grants, representing about €400 million. The interest in these projects is very high and the programme is continuously oversubscribed, with less than one out of five project proposals funded each year.

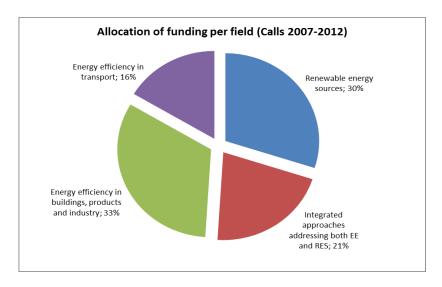


Figure 2: Allocation of funding for promotion & dissemination projects in IEE II (2007-2012)

IEE projects have concrete impacts. In 2012, for instance, projects with the goal of making a short term impact received €3 million from the programme. As a result, 130 000 tonnes fossil fuel will be saved yearly, along with almost 500 000 tonnes of CO_2 , and €490 million of investment generated.

Overall, public bodies represent roughly a third of the IEE promotion and dissemination project beneficiaries and two thirds are private entities including important European, national and regional multipliers and intermediaries as well as businesses. On average about 45% of all beneficiaries are SMEs.

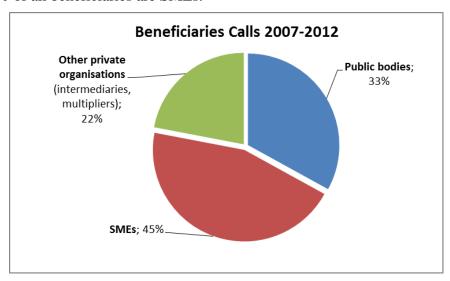


Figure 5: Beneficiaries in promotion and dissemination projects in IEE II (2007-2012)

Starting in 2008, the first projects have generated results since 2010. Some of the main achievements and concrete results of the programme are set out below.

4.2. Main achievements

Treating nore avourable narket conditions

The IEE has contributed **creation of more favourable market conditions** by helping to remove market barriers and introduce and further develop new market tools. For example in the building sector, which represents about 40% of EU energy use and creates work for a large number of SMEs, about 50 projects have received support. About a fourth of these have improved market conditions by delivering outputs that range from direct support to market associations to market penetration of passive house technologies. Several other projects have assisted in the implementation of the Directive on the energy performance of buildings (EPBD). Informing stakeholders, voluntary commitment schemes and energy management have formed the basis of another set of actions. About a fifth of all the building projects have had a clear focus on promoting 'nearly zero energy buildings'. These recently selected projects illustrate the trend towards addressing energy efficiency and renewable energies jointly and the changing energy supply landscape towards more distributed power generation.

The **POWER HOUSE EUROPE project**²³ capitalised on the results of 20 previous IEE projects addressing renovation of social housing (financed in the period 2003-2006), via the creation of six national platforms, online toolkits incorporating guidance, and targeted dissemination to the 39 000 CECODHAS-affiliated social housing operators. It has given impetus to public, cooperative and social housing operators which provide 12% of Europe's housing stock, strengthening their capacity for providing housing fit for the 21st century. In the CIP final evaluation, a specific assessment of POWER HOUSE EUROPE was conducted which concluded that this project 'represents an important model for promoting the adoption of best practice with lessons that go well beyond its immediate application'.

Building apacities and skills The programme has also **facilitated the launch of large-scale education and training schemes/activities** in the Member States to prepare the market for the implementation of the EPBD and the Renewable Energy Sources (RES) Directive. These projects are leading to the development of new curricula, particularly in establishments of higher education, which have been adapted to meet the market need for skilled building professionals.

However, it is critical to have a suitably qualified on-site workforce to reap the energy saving potential of the building sector or to capitalise on the possibilities for distributed production of energy from renewable sources in our built environment. Without a skilled workforce high-performance buildings would remain on the drawing board or planning permit. It is necessary to ensure that the construction sector has the capacity to deliver in the last stage of the supply chain for new and renovated buildings. To address the specific requirements of the on-site construction work force, the **BUILD UP Skills initiative** was launched in 2011 following its announcement in the European Commission's Energy Efficiency Plan.

Since 2011 **BUILD UP Skills** has successfully mobilised projects in 30 countries (27 Member States as well as Norway, Croatia and the Former Yugoslav Republic

²³ POWER HOUSE EUROPE 'The big green housing energy exchange' http://www.powerhouseeurope.eu/

of Macedonia). By the end of 2012, 21 countries have successfully completed their national status quo report, identifying potential skills needs and gaps for craftsmen and on-site workers in the building sector. Based on these, National roadmaps are being released throughout 2013.

These roadmaps prepare the ground for the implementation of ten large scale longlasting training schemes in ten countries. The projects have been approved for funding in the second phase of the initiative and are expected to start in autumn 2013.

The QUALICERT project developed common success criteria for certification (or equivalent qualification) schemes for installers of biomass stoves and boilers, shallow geothermal energy systems, heat pumps, photovoltaic and solar thermal systems, with a view to achieving mutual recognition across the EU, in line with Article 14 of the Renewable Energy Sources (RES) Directive. The project has stimulated businesses and strengthened local entrepreneurship (notably in SMEs) by training and qualifying installers across the EU. It has also helped to ensure higher quality installations and a more reliable and transparent market.

There have also been other actions undertaken to increase skills. Among energy consumers, young generations represent an important segment which has been targeted since 2007 through 13 actions on **intelligent energy education**. The aim of these actions was to provide new and innovative teaching concepts, launch awareness campaigns at schools and build competence among students and teachers for sustainable energy solutions. These projects have been mainly targeted at primary, secondary and vocational schools. Some of them had a massive outreach, e.g. the 'My Friend Boo' cartoon has been distributed in 22 countries in 17 languages and reached 25 million homes.

Shaping policies and converting priorities into action

Through the programme, **EU level priorities** in the field of sustainable energy have been **shaped and converted into concrete actions**, and **studies** financed by the IEE II programme have helped to develop, promote and implement EU policy on energy efficiency and renewable energy sources. Over the programme period, about 65 tenders received support, mainly serving as an input to the policy and legislative work in the field. As an example, the financing of **preparatory studies** and **impact assessments** have been indispensable in developing the Ecodesign, Energy Labelling and Tyre Labelling implementing measures. **Three IEE Concerted Actions** have made it possible for the national implementing bodies in the Member states to meet regularly and share experiences with the transposition of the EU Directives on energy performance of buildings, renewable energy and energy services.

Furthermore, 21 projects have focused on a range of equipment and target groups selected for their large energy-saving potential. The intention of the projects was to directly support the Eco-design Directive and the Energy Labelling Directive, notably by making market surveillance activities more effective. From 2010, additional projects have been selected to focus on household behaviour, addressing specific segments such as vulnerable consumers.

The energy services industry has been promoted through 12 specific projects. They have succeeded in moving the market forward by transferring best practices, developing model contracts, procurement guidelines and measurement protocols, raising confidence, supporting the development of new business models such as **energy performance contracting** (EPC) and pilot projects, analysing the market barriers and opportunities and

providing direct training and capacity building. The results of these projects were used in the impact assessment of the new Energy Efficiency Directive, which was adopted in October 2012.

The **EESI** project²⁴ aimed at broadly promoting the implementation of Energy Performance Contracting (EPC), thus contributing to the establishment of effective energy service markets in Europe. Target market sectors were mainly the public sector and the local administrations, but also private building owners and private real estate companies in 10 countries. One of the most important outcomes of the project was the support and the initiation of 24 signed EPC projects in the participating countries. With these projects, EESI succeeded in triggering more than \in 36 million of investments that will generate savings of around \in 4.5 million per year. In addition, capacity-building was provided to market actors through national online-help desks and numerous training events.

The **Ecoheat4EU** project²⁵ contributed to improve the legislative environment for district heating and cooling (DHC) across Europe. The project surveyed and analysed support legislation for DHC and produced 14 national DHC roadmaps. Additionally, a 'DH Barometer' was set-up in order to measure and monitor the development of DH on national markets so that the success of support measures can be assessed. The project results were widely disseminated at EU and national level at a time when the proposed Energy Efficiency directive put a special emphasis on the important role of district heating and cooling.

Bioenergy currently provides more than 2/3 of the renewable energy in the EU, and is expected to account for more than half of the EU's renewable energy in 2020, which corresponds to about 11% of the total EU energy consumption. Over 40 projects in this sector have received support to **develop supply chains** for solid biomass, liquid biofuels and biogas, together with EU, national and regional strategies for sustainable exploitation of bio-resources, including forestry, agricultural, industrial and municipal wastes.

Both agricultural biogas and waste treatment are addressed by the **Bio-methane Regions**²⁶ project, which started in 2011. Based on the successful predecessor project 'Biogas Regions'²⁷ - which mobilised more than \leq 40 million of investment in new biogas plants in 7 regions, resulting in savings of 60 000 tonnes $CO_2eq/year$ - Bio-Methane Regions accompanies 20 new biogas and bio methane projects, from the initial concept to the realisation of the infrastructure. The quantifiable impact is expected to be more than \leq 50 million investment mobilised and more than 25 000 toe/year biogas produced.

AgriforEnergy II²⁸, which ended in 2012, promoted sustainable biomass production from forestry and agriculture for energy production in seven European regions in Austria, Italy, Slovenia, Germany, Bulgaria, Sweden and Finland. The

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²⁴ EESI http://www.european-energy-service-initiative.net/

²⁵ Ecoheat4EU http://ecoheat4.eu

²⁶ Bio-methane Regions http://www.bio-methaneregions.eu/.

²⁷ Biogas Regions http://www.biogasregions.org

²⁸ Agri4Energy II, http://www.agriforenergy.com

project published real case studies in each sector, available in 7 languages. 11 000 people have been engaged in collective workshops, study tours, and one-to-one meetings. During the project, technical assistance was provided to 77 investment projects in bio heat, pure vegetable oil, biogas and bio methane, representing altogether over \leqslant 71 million of investments and 60 000 tCO₂ saved per year.

Renewable electricity (RES-e) was the first renewable energy market sector to benefit from a Directive (2001), and has now moved into the mainstream as a rapidly growing source of electricity. Thirty five RES-e projects have received support, 14 of which have been strategic in nature, contributing to policy implementation and addressing the challenging obligations of the 2009 renewable energy Directive.

OFFSHOREGRID²⁹ has developed designs and proposals for a regulatory framework as inputs to the Commission's 'Communication on Energy infrastructure priorities for 2020 and beyond'. Other projects have addressed the simplification of regulatory and administrative procedures and increasing social acceptance, thereby helping to speed up development and reduce project costs.

Some RES-e projects contributed to the growth of the RES market by helping to remove market barriers and to simplify approval procedures for the introduction of small-scale renewable systems in buildings. In **PV Legal**³⁰, the time and costs of the various legal requirements (such as permits) for different PV installations in 12 European countries have been fed into a PV Legal database, now being extended to 16 countries and covering more grid integration aspects under project '**PV Grid**'³¹.

ostering ommitment f businesses The IEE programme has **fostered commitment among businesses.** The industry has been targeted by 20 projects, mainly **aimed at Small and Medium-size Enterprises** (SMEs). Some of them have focused on developing strategic resources for specific branches, e.g. the chemical industry, plastic converters and surface engineering. Others have been developing resources that are relevant across several industry sectors, e.g. training schemes for SMEs, or decision-making tools to improve the thermal energy demand of businesses. The involvement of industry associations has ensured a strong commitment from business leaders as well as the achievement of a critical mass or multiplier effect at industry level.

The CARE+ project³² developed a tool to enable SMEs in the chemical sector to carry out energy audits. Supported by a detailed user manual, the tool allows SMEs to identify energy- saving measures and calculate the return on investment. The tool was extensively tested in an audit campaign that identified considerable energy savings in the 77 SMEs involved. For instance, the 19 energy audits carried out in Bulgaria alone identified energy saving measures amounting to more than 1717 toe/year (or more than EUR 787 000/year). Meanwhile, CARE+ has become part of the Responsible Care Initiative, the global initiative to improve health, safety and environmental performances in the chemical industry.

nforming takeholders The programme has been instrumental in **informing stakeholders on sustainable energy and energy efficiency.** For instance, 43 projects were aimed at making transport

²⁹ Offshoregrid, http://www.offshoregrid.eu/

³⁰ PV LEGAL, <u>www.pvlegal.eu</u>

³¹ PV GRID, <u>www.pvgrid.eu</u>

³² CARE+ 'Training chemical SMEs in responsible use of energy' www.cefic.org/Responsible-Care

more energy-efficient, covering both passenger and freight transport, and supporting more than 320 local and regional stakeholders in 28 countries.³³ Some of these projects have increased the number of cycled kilometres for a total estimated energy saving of 20 000 toe/year. Others have focused on the promotion of public transport or car-sharing, reaching more than a million citizens through their campaigns.

The EU Sustainable Energy Week (EUSEW) showcased best practices and project examples, and brought together stakeholders in public events, conferences and debates. At the Sustainable Energy Europe Awards Ceremony, winners are chosen from hundreds of projects submitted by public authorities, private companies, European associations, universities and NGOs committed to the promotion of energy efficiency, renewable energy, energy education and clean transport. The 2012 edition was the largest EUSEW so far, with 4 056 participants in Brussels, a 17% increase on 2011. Energy Day events (in Brussels and further afield) rose to 1020, a 40% increase on the previous year. The media work carried out in relation to the EUSEW paid off with 143 media mentions (reaching an estimated audience of 74 million people).

ground for nvestment

Preparing the The programme has been instrumental in mobilising investments in a wide range of sectors. By the end of September 2013, 26 projects were approved and signed under the ELENA (European Local Energy Assistance) technical assistance facility with the EIB, which was launched in 2009. The signed projects correspond to an amount of ELENA contribution of €43 million and should lead to investments of €2.5 billion. The average expected leverage factor for the signed projects is 60, i.e. three times the currently requested minimum level (20). The cumulated energy savings for all 26 projects could reach 1 145 GWh/y when fully implemented; the generation of energy through renewable sources could be estimated at 530 GWh/y and at least 485 000 tonnes of CO2 emissions could be avoided annually during the project life. The total investments committed by the end of 2012 through calls for tenders or contracted/implemented reached a value of more than €260 million. Under the ELENA-KfW window, four investment programmes by participating local banks were approved and one signed. The approved projects correspond to ELENA contribution of €6.5 million and should release loans for sustainable energy projects in amount of at least €200 million, in three EU countries. The impacts in terms of energy saved, renewable energy generated and GHG emissions reduced will be known once the programmes will get into the implementation phase.

> Complementing the ELENA facility, an integrated initiative, 'Mobilising Local Energy **Investments'** (MLEI) was introduced in 2011. It aims to support project development assistance for local or regional public authorities (either individual authorities or groupings of authorities) to work together with financial institutions and/or fund managers and/or ESCOs to prepare, mobilise financing for and launch investments in sustainable energy projects. In the period 2011-2012 16 projects have been funded under MLEI. The total costs of these projects amount to €18 million, with an expected triggered investment of €384 million, corresponding to an average leverage factor of 21.

The **ELENA Facility** provides grant support of €1.3 million to the city of Paris, for the development and launch of a large-scale Energy Performance Contracting

³³ The results of these transport projects have been widely disseminated through ELTIS, the European Commission's on-line portal on urban mobility (http://www.eltis.org/).

investment scheme targeting some 300 school buildings. The city of Paris aims to launch an overall investment programme of €180 million financed by a third party, an Energy Service Company (ESCO). This project should lead to significant cost and energy savings (10.86 GWh/year) without a need for public finance as the investment is being repaid by reduced energy bills.

So far, the project has resulted in implementing the first tranche of investments: internal procedures and preparation of the tender dossier; call for tenders and selection of the best bidder; contract signature and formal adoption by the city council; contract with external consultant for the follow-up of the works. Furthermore, an energy performance contract has been signed for carrying out work in the first 100 Parisian schools. The contract stipulates a minimum of 30 % energy savings and a bonus/malus system for the achievement of this objective. The contractual amount so far has been €28 million.

The **ManagEnergy initiative** has also been instrumental in converting EU energy policy into action. It provides information on EU sustainable energy policies and their implementation for local and regional public authorities and energy agencies, through its website (www.managenergy.net), networking and capacity building events. Furthermore, **79 new local and regional energy agencies** have been established since the beginning of the IEE programme, of which 21 have been established during the IEE-II programme.

Energy policies are affecting the investment decisions made by citizens, businesses and public authorities at local and regional levels. The **local energy leadership** projects aim to ensure coherence of energy policies up and down the governance chain, from EU level to local and regional authority levels. In total, 29 projects have been supported **involving more than 1000 cities and regions across the EU**, with a view to helping public authorities to draw up Sustainable Energy Action Plans (SEAPs) and to implement concrete measures and investments identified in those plans.

The projects have contributed to and built on the success of the **Covenant of Mayors** (**CoM**) **initiative**³⁴, bringing together committed European mayors in a sustainable network to exchange and apply good practices for improving energy efficiency and increasing the use of renewable energy in the urban environment.

So far, almost 5 000 cities have joined the **Covenant of Mayors** and the Commission services have received over 3 000 Sustainable Energy Action Plans from the signatories. An initial evaluation of a set of 525 SEAPs shows that signatories to the Covenant commit on average to nearly 30% CO_2 reduction target by 2020, demonstrating a potential for 73 million MWh annual energy savings in 2020, 23.7 million MWh annual energy generation (CHP, RES) in 2020³⁵. They set out an investment need of over \leqslant 40 billion.

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³⁴ http://www.covenantofmayors.eu/index_en.html

³⁵ Covenant of Mayors, Service Contract ENER/C3/2010-467/SI2.582538 Interim Report, 30/06/2012.

5. CONCLUSIONS

The data contained in this report confirm that the CIP is on track to achieve the anticipated impact.

The CIP final evaluation³⁶ concludes that the CIP as a whole has become a major vehicle for promoting innovation, thereby contributing to the competitiveness of the European economy. The current economic crisis highlights the fact that the principal objectives are as significant as ever, which increases the need to build on insights that have been shown to be successful and effective, such as the financial instruments.

Some of the main achievements within the **Entrepreneurship and Innovation Programme** are set out below:

Since 2007, the **Financial Instruments** have:

- assisted more than 240 000 companies;
- helped to mobilise over €13 billion of loans and €2.3 billion of venture capital for SMEs across Europe;

The **Enterprise Europe Network,** which brings together business support organisations from more than 50 countries, has:

- been in contact with more than 2 million SMEs each year. More than half of the SMEs
 which used its services confirmed that they had accessed new markets or developed new
 products.
- helped businesses find business partners. On average, the impact on turnover of these partnerships was 220000 EUR per company. The total impact on sales growth is estimated at €625 million. Between 2008 and 2012, more than 4 400 jobs have been created by firms under partnership agreements.

Intellectual Property Rights (IPRs) support was delivered through projects such as IpeuropAware and the China IPR SME Helpdesk.

- During its three years of operation, the IpeuropAware project organised 39 seminars on IPR enforcement, tested 72 new IP services and tools, was responsible for training some 250 IP officials on enforcement issues, advised more than 4000 universities, public research organisations and SMEs, and created a pan-European website to which nearly all the European National IP Offices contribute.
- Since 2008, the China IPR SME Helpdesk, which provides training for European SMEs on how to protect their IP when doing business in China, has served some 80,000 website users and offered over 1000 private confidential consultations.

Framework conditions for businesses were improved through the exchange of best practice for example by:

• simplifying the administrative procedures linked to starting up a small business: In 2012 the average time and **cost of starting up a private limited company has been reduced from** 12 days and €485 in 2007 to 5.4 days and €372 in 2012.

Innovation was promoted by, for example:

http://ec.europa.eu/cip/files/cip/cip final evaluation final report en.pdf.

supporting the market application of more than 200 eco-innovation projects in various sectors such as recycling, green business, the food and drinks sector, water and the buildings sector. Approximately 65% of participants were SMEs. The projects also have a significant leverage effect, as participants are required to provide 50% of the cofunding.

Policy-development was supported through analysis and benchmarking, policy monitoring, workshops and exchanges of best practices by means of, for example:

• the European Innovation Scoreboard, EU SME annual reports and the SBA country factsheets.

The program has **boosted entrepreneurship** by:

- supporting sixteen Europe-wide projects in the field of entrepreneurship education, which will serve as models for introducing innovative methods of entrepreneurship education in all the Member States. The nine first projects involved about 70 000 students and young people and some 900 teachers.
- campaigning through the European Network of Female Entrepreneurship Ambassadors in 22 Member States to inspire women to set up businesses. More than 100 new women-led companies were created in the first year alone.
- the establishment of Erasmus for Young Entrepreneurs programme, under which almost 2000 exchanges to help aspiring European entrepreneurs with the skills necessary to start and/or successfully run a small business in Europe have been launched.

The Information and Communication Technology Policy Support Programme (ICT PSP) has improved interaction and cooperation between public administrations, citizens and businesses, through large scale pilot projects by:

• initiating coordinated efforts for government interaction and cooperation, e.g. for common eID (STORK), common tools and processes for electronic procurement (PEPPOL), creating a common structure and portal for access to cultural content (Europeana), justice communication via Online data exchange (e-CODEX), points of single contact for businesses (SPOCS).

Furthermore, the ICT PSP programme has **promoted innovative ICT-based services** through pilot projects that are built to validate, demonstrate, develop experiences and collect users based evidences showing the benefit of such services in areas such services for:

- the ageing population and inclusion, e.g. through common platforms (Commonwell, SOCIABLE), test-beds for aging well services, and creation of coordinating efforts such as the Active and Healthy Ageing European Innovation Partnership (AHAP);
- energy efficiency, through pilots such as eHouses; pilots for more energy efficient social housing (ESESH); and more efficient use of street lights (LITES);
- collaborative transport systems, through e.g. eCall, an automated crash detection system that will move to deployment phase within two or three years, pilots on efficient urban freight (FREILOT) and efficient general travel management for European cities (IN-TIME).
- With the projects resulting from Call7, the ICT PSP will also anticipate some elements
 of H2020, having Open Bottom-up pilot projects for innovative public services and
 experimenting with Public Procurement for Innovative Solutions (PPI) in the area of
 Healthy-ageing.

The Intelligent Energy — Europe II Programme (IEE II) has created favourable market conditions by helping to remove market barriers and introduce and further develop new market tools:

For example, in response to the 2006 and 2011 EU Energy Efficiency Plans, actions
have led to the wider use of market-based instruments to further incentivise the use of
efficient technologies. These actions have been complemented by projects aimed at
sharing experience of innovative instruments to save energy in the building, transport
and industry sectors, and facilitating the use of energy performance contracting to
accelerate growth in the market for energy services.

EU priorities on sustainable energy have been converted into concrete actions to facilitate policy definition and implementation.

• The EU Directives on renewable energy, co-generation, energy services, eco-design, labelling and the energy performance of buildings have all been supported by studies, and exchanges of practices on implementation issues have been facilitated. Furthermore several projects fed in the discussions that led to the adoption of the new Energy Efficiency Directive in October 2012, and the implementation of the latter will be facilitated through an IEE-funded Concerted Action involving all national implementing bodies. This action is complementary to two other Concerted Actions also supported by IEE and which address respectively the Energy Performance in Buildings and the Renewable Energy Directives.

The IEE programme has been instrumental in **preparing the ground for investment by** bridging the gap between potential buyers/owners and the financing community, in order to leverage public and private sources of funding for the upgrading of energy systems in the building, industry and transport sectors. For example:

- measures have been taken to help empower purchasing authorities, which are responsible for the procurement of sustainable energy systems and services, e.g. through project development assistance under the ELENA initiative (and more recently under the Mobilising Local Energy Investment initiative, MLEI).
- actions are helping to build investor confidence, e.g. by establishing long-term innovative financing mechanisms that will accelerate the commercialisation and diffusion of energy innovations across the single market.

The IEE programme supports the **building up of capacity, knowledge and skills** to ensure that high quality energy technologies and services can be delivered.

- It has supported activities to train designers, suppliers, and installers of new energy technologies and services, especially in building SMEs, but also in industry, the services, and the public sector which authorises and licenses the use of new technologies and services at local or regional levels.
- Recently a Build Up Skills initiative has been launched to train on-site workers in the construction industry. The first results are very encouraging with 30 countries committed to defining their training roadmap towards 2020.

Furthermore, the IEE programme has **informed stakeholders and fostered commitment** namely on concrete ways to reduce the impact of energy use on the environment, economy and society.

 New ways of engaging the divers range of energy consumers have been developed by applying the results of behavioural and social sciences, adopting a cross-disciplinary approach, and exploiting the potential of new enabling technologies. Savings have been made by networking, sharing high quality information and demonstrating commitment across national borders.

- In addition, innovative actions leading to wider public acceptance have played an important role, e.g. mobilising additional renewable energy capacity and reinforcing or extending the grid infrastructures which are needed to deliver the EU 2020 targets.
- After six years of operation, the number of organisations wishing to participate in the IEE programme is still growing (more than 5 000 project beneficiaries in 32 countries have been funded, and its impacts in supporting sustainable energy policy implementation, capacity building and the mobilisation of investment across the EU are becoming ever more visible.
- Feedback from independent programme evaluations, from the Commission's own public consultation and from unsolicited letters sent by a wide range of stakeholders confirm that the IEE programme is indeed making a valuable contribution to the challenge of meeting the EU 2020 climate and energy goals, by complementing the work of other market actors and helping both the public and private sectors to implement the policies and legislation to which they are committed.

5.1. New programmes 2014-2020: COSME and Horizon 2020

In November 2011, the Commission presented its proposals for the new generation of EU programmes covering the next EU financial framework (2014-2020). The programmes are scheduled to be adopted in autumn 2013 and enter into force on 1 January 2014.

Building on the lessons learnt from the CIP, competitiveness and SMEs and innovation will be covered by two programmes: COSME and Horizon 2020. The Programme for the Competitiveness of Enterprises and small and medium-sized enterprises (COSME) will target competitiveness issues with a particular focus on SMEs. Innovation in SMEs and the themes addressed by the ICT PSP and the IEE will be covered by the Horizon 2020 Framework Programme for Research and Innovation.

Many of the successful features of CIP will be continued and further developed under COSME and Horizon 2020: the financial instruments will continue investing in SMEs, both during the start-up phase (Horizon 2020) and the growth phase (COSME); the Enterprise Europe Network will reach out to millions more of SMEs with support needs; a wide range of best practices will be identified and disseminated; and policies, regulations and framework conditions for entrepreneurship and SMEs will continuously be improved.