



CO-EFFICIENT NEWSLETTER NO.2.

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2. Editor's note

Dear reader,

Hard times are challenging but they are simultaneously times of great opportunities and innovations for SMEs. New concepts for cooperation and innovation enhancement are explored; new models are tested and implemented. SMEs are on the forefront of the innovation challenge since they have to stay “mean and lean” and a step above competition to survive and thrive in the time of need.

But SMEs can't do it alone. It is becoming apparent that new, real life environments that act as a test bed for innovations and in which users, researchers and developers can co-create products or services and test the ideas in the real life are needed.

In the last decade a trend in open innovation approach, called Living Lab, is gaining ground across Europe. It builds on the notion that companies are willing to use both internal and external ideas to bring innovation in their processes and technologies. Living Lab allows public (consumers, SMEs, clusters, associations), as users, to have direct influence on the research and development process due to user driven nature of it.

SMEs no longer want to be just objects of research they want to co-create innovative ideas that will secure their competitive advantage.

The framework of the Living Lab not only engages end-users directly in the product and/or service innovation, it also brings right expertise (R&D), ensures right input from the organizational level and implements innovative technical platforms. In this way it promotes creation of ideas, their development in concrete products/services and testing in real life surrounding.

In this edition of CO-EFFICIENT newsletter we are exploring the topic of Living Lab in more detail. We talk about its main components (users, structured methodology, organizational structure and technical platforms), requirements for successful implementation and we take a look at how many Living Labs are active in Mediterranean area and at their success rate.

And in our project we are testing the concept in real life environment. We are creating two sets of Living Labs in each country and implementing pilots that will test framework's fit for innovation in eService development and energy efficiency in production processes in SMEs.

We are inviting you to join us on this journey, to participate in our Living Labs and use this environment to gather or create ideas, develop solutions with different groups of users, disseminate your ideas or explore financing possibilities or market entry opportunities.

Should you need any further information on the topics and ideas referred to in this issue please contact directly any of the regional partners whose contact details can be found at <http://coefficient-project.eu/home/contact> .

Nada Kožul

Regional Development Agency of Slavonia and Baranja





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3. Innovation framework – analysis of regional circumstances, conditions and needs

In order to make informative decision on how to create better environment from which SMEs, R&Ds and other stakeholders can innovate within their regions, CO-EFFICIENT partners first decided to look at what already exists in their countries, EU and even on international level. What works, what doesn't? Which sectors and types of companies and institutions seem to work well together, how R&D financing functions in different countries, what about EU, who is in charge of energy efficiency initiatives and legislation, are there any Living Labs and how successful are they? Answers to all these questions (and many more) were collected, tracked, measured and visualized. All this will hopefully lead to a better innovation ecosystem for stakeholder involvement.

In order to accomplish this objective, five countries provided inputs on their regional and national circumstances, including the analysis on the EU level. These inputs were gathered at different levels, beginning with a top down approach from the European level, through national level and finally regional level. This provided a well-rounded view of areas such as R&D&I financing, the institutes of energy efficiency, logistics and transport sector structure and transport optimisation.

The findings provided an insight into each of the regions in terms of industrial development, geography, history, population and wealth, which are all contributing factors that needed to be considered when developing a Living Lab in the area.

Insight into current situation was given in the study of key manufacturing industries within the regions and specifically level of IT penetration in each of the regions. Analysis has clearly shown that larger, more populated regions were embracing technology on a much larger scale, even in small and medium companies. Although this is a major and important difference between the regions it could also be interpreted as an opportunity for development and promotion of information technology solutions and hence very interesting for development of living labs.

Particularly interesting conclusions are highlighted below:

- **R&D&I Financing:** Each of the following European countries, France, Spain, Italy, Croatia and Slovenia, were analysed and found to have varying levels of national support for innovation and research. This is even more diverse at regional level.
- **Institutions of Energy Efficiency:** From the national perspective, promotion and development of energy efficiency is under the responsibility of their governments and ministries. A number of public institutions exist to support and develop the existing framework.
- **Transport Optimization and Energy Efficiency Policies:** In terms of transport optimisation, there are a number of different initiatives currently in place in each of the countries studied
- **Living Labs:** France, Italy, Spain and Slovenia were found to have many active living labs, while Croatia has none. Only one living lab concentrating specifically on logistics innovation within Europe was identified.
- **The Logistics and Transport Sector Structure:** national logistics and transport sector structures differ largely between nations, with larger countries showing a much more diverse and established infrastructure.
- **Key Manufacturing Sectors:** Results obtained from questionnaires obtained from key manufacturing sectors show varying information such as the penetration of IT as mentioned previously.
- **Optimizing transport and energy efficiency:** current active national policies and plans for transport optimisation were analysed. Results show that there is general interest for active involvement in energy efficiency activities.

Of course, the results above are a very brief summary of the analysis and information gathered during the development process of the document. For further information please read full report available on CO-EFFICIENT webpage <http://coefficient-project.eu/downloads/deliverables>



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4. Activities for successful Living Lab implementation

Living Lab is a trend in open innovation approaches, which assumes that companies use both internal and external ideas to innovate their processes or technology. The aim of the Living Lab is to support innovation process with research platform resulting in a usable and innovative product or service. The Living Lab involves different stakeholders, such as researchers, developers, local authorities and end-users (SMEs), with the common objective to co-create innovative products and services in a real-world (living) environment. SMEs are no longer being observed or researched, but are invited to co-create innovative ideas to design their own future.

Within the scope of the CO-EFFICIENT project, a specific model consisting of 7 phases aiming to support the formation of two Living Labs, eServices and Energy Efficiency, was developed. The basic activities of the two Living Labs are similar; however the stakeholders' groups consist of different partners. In addition to supporting partners, the eServices Living Lab consists of diverse SMEs, while SMEs of the Energy Efficiency Living Lab have preferably similar activities and business area. Proposed 7 phases include activities as briefly presented below

7 phases of Living Lab development:

- **Initial phase:** the current situation (problem or opportunity) of the topic discussed in the Living Lab is identified and structured. A business model for the Living Lab is developed. SMEs with their current issues or business opportunities are of key importance since they are the owners of the discussed problems/opportunities.
- **Connect:** the network of complementary stakeholders is formed to connect the group of participants. In addition to the initiator of the Living Lab, SMEs, research organizations, local authorities, consultants and other organizations with related problems or ability to influence internally or externally are invited to join the group of stakeholders.

- **Plan:** the problem/opportunity is described in detail with objectives, roles, agreements and other management issues of the Living Lab. SMEs, as owners of problem/opportunity, are invited to participate in the definition of goals, while other stakeholders offer support with their own knowledge and experiences in similar or related projects.
- **Communicate and support:** the inputs, schedules and dissemination activities are defined to enable fluent flow of the Living Lab activities and effective support for the SMEs participating in the innovation process.
- **Operate and improve:** a solution is developed and continuous improvement of the innovation process defined by the Living Lab is proposed. All Living Lab stakeholders co-create a feasible and profitable solution of the discussed problem/opportunity. SMEs are able to test the solution they co-created and identify even more opportunities for improvements.
- **Deploy:** the developed solution is deployed and knowledge gained is promoted in the participating regions while inviting new stakeholders and pushing towards and infinite loop of improvements in the area. A business model to enable successful marketing of the solution can be developed to enable sustainability of the Living Lab.
- **Evaluate and Sustain:** activities to enhance the Living Lab performance and support the SMEs-driven open innovation process are carried out before a new circle is entered. All stakeholders are invited to actively participate with the ideas to improve Living Lab activities based on their experiences. Since the Living Lab acts as a living organism, the process of improvements and innovations is not finished after the developed solution, but upgraded to a higher level with more opportunities to grow and spread innovative solutions useful for the participating SMEs and their environment.



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5. Application of ESCO model in energy efficiency projects

Renewable energy sources (RES) are often mentioned in the same context as energy efficiency (EE). These are two different terms that are complementing each other perfectly when they are put in the same concept, but only if the measures for improvement of existing conditions of buildings, industrial processes or public lighting are well planned. There are no benefits if RES are used on energy inefficient buildings.

Application of RES is the final touch of good energy management.

What is the reason?

It is necessary to reduce energy needs and optimize energy consumption of building or industrial process before the implementation of RES.

The biggest obstacle for implementation of EE measures is the high cost. The introduction of ESCO (Energy Service Company) model has opened an entirely new market with great potential for entrepreneurs (construction, engineering, design, consulting) that brings positive effects for entrepreneurs and investors alike (through improving the quality of life and increasing property prices for private individuals or improvement of manufacturing processes for entrepreneurs).

ESCO operates on the principle of return of the financial investments through the implementation of EE measures. ESCO company is investing its own funds or third party funds (bank loan) for the implementation of EE measures, and signs the Energy Performance Contract with the client, which regulates all the details and relations between both sides, the timeframe of the activities and payback period for investments accomplished by energy savings. During the contract period (usually from 5 to 15 years) the client continues to pay the same amount for energy cost (amount is determined according to reference consumption for the period before the implementation of EE measure) throughout the entire contract period and the investment is paid from the difference between present cost for energy and cost that is determined by the reference consumption paid by the client.

For successful implementation of ESCO project it is necessary to align three main steps:

- **Technical** – make a quality and accurate assessment of the potential to achieve cost savings based on the current situation and existing energy consumption;
- **Financial** – setting the timeframe for payback period of the investment;
- **Operational** – permanent and regular monitoring and verification of accomplished energy savings.

ESCO model can be applied in several ways, regardless of whether it comes to improving the thermal performance of the building, increasing the efficiency of industrial processes or only by consulting services, the principle is always the same. It is basically a temporary takeover of responsibility for energy management during contract period. Application of RES in ESCO projects is favourable, but important precondition is to reduce energy demands before applying RES in buildings, while in industry RES are good solution if it is technically possible and economically acceptable to implement them. There are many other solutions to increase EE in industry besides RES, i.e. automation of processes, regulation of regime of performance of technical systems, installation of more efficient devices for heating and heat recovery ventilation etc.

Since ESCO company is investing its own financial assets in EE measure it is in its interest to do it in a high quality manner to achieve best results. In that way, the client does not take the financial risk, but on the other hand, it collects the benefits from savings after the end of the Energy Performance Contract.

ESCO brings multiple benefits to all participants, to private individuals by raising the living comfort or by improvement of processes for industries, followed by a direct financial benefit after the expiry of the Energy Performance Contract, and for ESCO companies by achieved energy savings that lead to direct financial benefit.



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7. Project events

Past Events

On 6th and 7th of March 2014 partners of the project came together at the third partners' meeting which was held in Modena, Italy. The meeting was accompanied with workshop titled "Energy integration in the building/plant system and consumption monitoring". More than 60 participants attended CO-EFFICIENT workshop organized by CNA in cooperation with Modena Chamber of Commerce. Workshop covered a range of topics from IT support to energy consumption control up to models and solutions in energy certification and refurbishing in construction. Lectures and presentations were constructed with SME's needs and resources in mind.

On 2nd and 3rd June 2014, Representatives of Regional Development Agency of Slavonia and Baranja attended SEE-MED Joint Communication Training that was organised in Bled (Slovenia). During the training, the communication managers of SEE and MED projects learnt more about how to create affective Communication strategies, use Social Media for the project purposes, organise Final Events, utilise Story-telling and advocate their projects at EU level.

For more information and access to all the materials and photos go to:

http://www.southeast-europe.net/en/news_and_events/events/other_events/2014/see-medjointcommunicationtrainin gpresentations.





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On 4th of June 2014, lead partners of several MED projects have gathered in order to explore opportunities for closer collaboration among projects. Although topics that projects are dealing with are quite diverse, some commonalities were identified in field of logistics, promotion of energy efficiency and renewable resources, energy management in SMEs and green procurement. Without hesitation, project representatives have agreed to work together on projects' promotion and dissemination of results as well as on other specific fields shared by projects such as sharing experiences with data exchange and knowledge database inputs on one to one basis.

You are kindly invited to explore more about projects presented at the event and visit their web pages.



E²STORMED
<http://www.e2stormed.eu/>



SMILE
<http://smile-urbanlogistics.eu/>



SINERGIA PROJECT
<http://www.sinergia-med.eu/>



GREEN PARTNERSHIPS
<http://www.greenpartnerships.eu/>



GRASP
<http://www.grasp-med.eu/>



CO-EFFICIENT
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On 11th of June 2014, Valenciaport Foundation for Research, Promotion and Commercial Studies of the Valencian region held a meeting with stakeholders, potential candidates for participation in CO-EFFICIENT project pilot Living Lab. Valenciaport has demonstrated the transport efficiency tools that are going to be used in Living lab pilot.

On 17th of June 2014, informal settings and interesting presentations attracted more than 50 participants to CO-EFFICIENT's Workshop focusing on small and medium companies and their handling of energy efficiency issues in production facilities and processes that was organized in Croatia. The workshop has been jointly organized by Center for Entrepreneurship Osijek and Regional Development Agency of Slavonia and Baranja.



The event provided opportunity for presenting findings of an SME interview that was conducted in each participating country but also for informal networking of companies and project experts. Follow - up to the Workshop is expected through the involvement of SMEs in project's living labs.

Upcoming Events

From 16th to 18th of September 2014, 4th CO-EFFICIENT partners meeting will be held in Valencia, Spain. Partners will discuss Project's implementation and next steps. The event will also incorporate workshop incorporating the topic of energy efficiency and SMEs.

17 September 2014, 18:00 CNA, Via Malavolti 27, Modena.

The training project was born from a need to integrate the various players in the sector and to provide tools to get a complete look on interventions: how to make a comprehensive analysis of the situation and choose interventions to save energy and ensure economic returns. The course, funded by the European Social Fund, is free. It is aimed at entrepreneurs and workers of construction companies, fabricators and installers of energy and heating systems. Speakers: Piergabriele Andreoli – Director of Agency for Energy and Sustainable Development Giovanni Busani – Expert consultant on energy

For all the current information on CO-EFFICIENT news, highlights and events please go to <http://coefficient-project.eu/>.



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8. Best practices – “Target CO₂”

In line with the objectives set by the European Union, the French government, together with the ADEME (French Agency for the Energy Management) has put in place the programme “Target CO₂ – carrier’s commitment”. This program aims at encouraging the carrier companies to take specific measures to reduce the gasoline consumption and therefore their CO₂ emissions.

With the help of a specialist, enterprises are accompanied in a volunteer process which is organized in different steps.

First the company, together with the specialist, implement a self-assessment of its CO₂ consumption, then a charter is signed, where the enterprise commit it-self to reduce CO₂ consumption by implementing some specific actions such as:

- modifications to the vehicle structures that will reduce the gasoline consumption;
- utilization of alternatives carburant or specific management software;
- eco-driving training for the company’s drivers;
- improvement of the company organisation.

Enterprises are followed step by step in the implementation of their actions. In the end, they will obtain the label: objective CO₂, which attests that the enterprise collaborated to the reduction of the CO₂ emissions, and at the same time, obtained an economic benefit, since its gasoline consumption will have decrease.

In several French regions, such as Languedoc – Roussillon and Rhône – Alpes region, Target CO₂ is managed in collaboration with the ATF that is hiring and supporting the regional expert.

More on project at www.objectifco2.fr





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The Project Partnership:

CO – EFFICIENT consists of a strong partnership composed of university, development agencies, research institutes and foundations, national SMEs and transport associations, innovation commercialization company and SMEs support institution that promote importance of implementing innovative solutions at SME level.

University of Maribor, (Slovenia): www.um.si

Regional Development Agency Mura (Slovenia): web.rra-mura.com

Institute for Transport and Logistic (Italy): www.fondazioneitl.org

CNA Modena (Italy): www.mo.cna.it

SATA (Italy): www.satanel.it

Valenciaport Foundation (Spain): www.fundacion.valenciaport.com

CIERVAL (Spain): www.cierval.es

AFT (France): www.aft-iftim.com

Regional Development Agency Slavonia and Baranja (Croatia):
www.slavonija.hr

Centre for Entrepreneurship Osijek (Croatia): www.czposijek.hr

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COLLABORATIVE FRAMEWORK FOR
ENERGY EFFICIENT SME SYSTEMS

