

REGIONS-CT-2013-320043-CLINES



Cluster-based Innovation through Embedded Systems technology

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Abstract:

This deliverable gives a brief overview of the showrooms identified by the partners as a way to show applied embedded technologies in the smart areas identified.

Keyword list: Demonstrator, Showroom, Living Lab

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1 Executive Summary

The deliverable D7.2 Report on showrooms established is a public document delivered in the context of WP7 "Showroom and Dissemination", Task 7.3 – Dissemination & Showrooms to regional, national and European public administrations for the CLINES project.

As part of the showrooms, selected demonstrators developed in other projects, have been described in order to visualize potential applications of embedded systems technology and thereby generate further innovative project ideas. The following application areas are addresses: Smart Environment, Smart Living, and Smart Mobility.

2 Introduction

The idea is to provide a set of project demonstrators that can be informative, interesting and easy to approach, and at the same time can be inspiring for further developments or cooperation between the cluster's companies involved in the project and other organizations.

In fact some of the showrooms have been already visited by the participants during the Workshop held in Brussels on 13th June 2014, and in the project meetings on 9-10th February, 2015.





Visit to Living Tomorrow on 13/6/2014



Visit to Kubik on 9/2/2015



Visit to Smart Energy Showroom on 9/2/2015

The results of the CLINES project (especially the regional profile and SWOTs) have been presented to local stakeholders in showrooms, for example at the Bavarian RIG kick-off on 25/11/2014 in Munich.



Regional results Showroom at the kick-off of the RIG Bavairia.

The CLINES consortium will develop an ecosystem to foster innovation within the application areas Smart Home&Buildings, Smart Mobility and Smart Environment (focusing on Smart Energy), and following this structure we present the identified showrooms.

The list provided in this deliverable is a snapshot of what is currently available, but it will be updated in the course of the project as more materials become available, especially as a result of the planned innovation workshops.

2.1 Smart Environment Showrooms

2.1.1 Bidelek Showroom - ES

Name:	Bidelek Showroom
Торіс	Smart Environment: Smart Energy
Specialization Activity Description	BIDELEK SAREAK has set up an exhibition area containing part of the real and operative equipment used in the deployment promoted by the Basque Energy Agency (EVE), Iberdrola Distribución Eléctrica and other companies involved in this project. In this show room, the main technological innovations introduced in the electric network, as well as applications and benefits for the electric system and users can be shown to other electric companies, equipment manufacturers, public administrations and other national or international institutions. This space is also a way of demonstrating the technological capability of Basque companies in the electric and smart grid development sector.
	 Layout The Show Room is divided in two different areas: Auditorium Area: This area surrounded by glass walls, is equipped with a video wall system and a central control station. This allows the participating companies to show visitors the main information about BIDELEK SAREAK

	project as well as the control and supervision capacity of the equipment installed in the Showroom
	• Exhibition Area: In this area, the equipment of the manufacturing companies involved in the Show Room has been installed and interconnected in order to show an exact copy of the operative system developed in the BIDELEK SAREAK project
Location	Zamudio - Basque Country - Spain
Website	http://bidelek.com/en/
Video	(Spanish) http://bidelek.com/en/show-room/
	(English) <u>https://www.youtube.com/watch?v=4BoUSMoViC8</u>
Photo	

2.1.2 Smart Energy Living Lab - DE

Name	Smart Energy Living LAB at the fortiss institute
Торіс	Smart Environment: Smart Energy
Specialization /Activity Description	In this project a real, self-balancing Smart Grid node demonstrator is developed and already deployed, which is integrated into the fortiss office environment. It combines different classes of devices from various areas of technology including energy (e.g. EnOcean actuators and sensors), intelligent electricity meters from multiple vendors (Ipswitch, Sentron Pac), photovoltaic systems, and solar batteries.
Location	Munich – Bavaria - Germany
Website	http://www.fortiss.org/en/research/projects/smart_energy_living_lab/

2.1.3 ISARE Microgrid - ES

Name	ISARE Microgrid

Торіс	Smart Environment: Smart Energy
Specialization /Activity Description	Creation of an efficient, reliable and secure interoperable microgrid that serves as test bench to develop and validate the status of different distributed renewable generator (micro- wind turbine, PV converter, fuel cell) and storage technologies (super capacitors, flywheel, Li-ion battery)
Location	Martutene – Basque Country - Spain
Website	http://www.i-sare.net/
Video	https://www.youtube.com/watch?v=F9ez5oUmZmg

2.1.4 Bird Living Lab - ES

Name	Bird Living Lab	
Торіс	Smart Environment	
Specialization /Activity Description	Urdaibai Bird Centre is a project of high naturalistic and environmental interest that studies and explains the migration of birds in a privileged area like Urdaibai. It is an applied research centre where visitors can watch birds and participate in research projects. Urdaibai Bird Centre combines: research, tourism, training and environmental education, all this with the support of new technologies with the goal of developing innovative projects.	
	European-based emerging technologies in the field of geo-localization with the creation of a living-lab to launch an emerging economic sector, monitoring of nature	
Location	Urdaibai – Basque Country - Spain	
Website	http://www.beingbird.com/	
Photo		

2.1.5 CISS Smart Energy Demonstrators - DK

Name	CISS smart energy demonstrators
Торіс	Smart Environment, Smart Energy
Specialization /Activity Description	The lab contains a set of demonstrators illustrating potential energy savings when introducing intelligent embedded systems to control energy consuming devices. The demonstrators originate from a number of European and national projects where CISS have been a leading partner.
Location	Aalborg - Denmark
Website	www.swkorridor.dk, www.energybox.dk, http://www.fp7-intrepid.eu/,

2.1.6 Energy Atlas Bavaria - DE

Name	Energy Atlas Bavaria
Торіс	Smart Environment: Smart Energy
Specialization /Activity Description	The central interactive portal of the Bavarian Government for energy saving, energy efficiency and renewable energy The maps section includes a comprehensive (and impressive) view on all the projects of renewable energy (bio mass, geothermal, solar, water, wind, waste heat) currently installed in Bavaria at countless locations.
Location	virtual
Website	http://www.energieatlas.bayern.de/

2.1.7 Energiedorf Wildpoldsried - DE

Name	Energiedorf Wildpoldsried – Energy Village Wildpoldsried
Торіс	Smart Environment: Smart Energy, Renewable Energy
Specialization /Activity Description	Wildpoldsried is a village that produces more renewable energy than it consumes – making it an ideal testbed for smart energy projects. For example, currently the IRENE project sets up a self-organizing energy automation system for which Siemens is implementing newly developed software. This software is designed to optimize the timing of power generation from the large number of photovoltaic, wind, hydroelectric and biogas systems connected to the electricity grid, as well as power consumption patterns and the storage of energy generated from renewable sources.
Location	Wildpoldsried – Bavaria - Germany
Website	http://www.wildpoldsried.de/index.shtml?photovoltaik

2.2 Smart Living Showrooms

2.2.1 KUBIK - ES

Name	KUBIK Showroom	
Торіс	Smart Living: Smart Building	
Specialization /Activity Description	The KUBIK Building is an international outstanding and unique experimental facility for R&D aimed at developing new concepts, products and services to improve energy efficiency in buildings.	
	The relevant uniqueness of KUBIK resides in its capacity of generating realistic scenarios for the research on energy efficiency coming from the interaction among construction solutions, the smart management of heating/conditioning and lighting systems, and the power of using renewable energies.	
	The infrastructure present consists of a maximum of 500 m2 building, which can be distributed over a basement and up to three more upper floors. Energy supply is based on the combination of conventional and renewable energies (geothermic, solar and wind).	
	The building is equipped with a monitoring and control system that provides all necessary information for the development of related R&D activities, as well as innovative services in the line of Smart Living.	
	Finally, the showroom is located at Tecnalia's premises in the Bizkaia Science and Technology Park, next to building 700.	
Location	Zamudio - Basque Country - Spain	
Website	Photo sequence of the construction works and phases: https://www.flickr.com/photos/28618409@N07/sets/72157621871755662/show/	
Video	KUBIK YouTube channel: https://www.youtube.com/user/kubikbytecnalia	
Photo	<image/>	

2.2.2 Living Tomorrow - BE

Name	Living Tomorrow
Topic	Smart Living: Smart Home, Smart Building
Topic Specialization /Activity Description	Smart Living: Smart Home, Smart Building "Living Tomorrow" is Flanders' largest and world-renowned facility demonstrating concepts of "Smart Living" to the general public, and also offering several spaces for meetings and events. It was created in 1995, and extended over the years with new elements reflecting the evolution in the domain. The first project, the 'House of the Future', was inaugurated by the then Chairman of Microsoft, Bill Gates in Brussels in March 1995. Over ten years ago Bill Gates clearly understood the long-term importance of the project: "I think a project like Living Tomorrow - where you are brainstorming about what is possible and you're getting people to come, look, and talk about what this all means – is really fantastic I am certainly impressed with what I've seen". Back then the project only consisted of the 'House of the Future' and an information complex. The success of this first project convinced the founders to accelerate their ambitions and create a real innovation platform and not only for B2C but also for B2B. A whole new project building, Living Tomorrow 2, was created next to the initial building. During this second project, the idea evolved to become the 'House and Office of the Future' from 2000 to 2005. The project had developed to show not only how we will live but also how we will work in the future. At the end of 2003, Living Tomorrow exhibited its first international project in Amsterdam, the Netherlands. This third venture received a vast amount of press attention. Continuing on the success of its Dutch project, Living Tomorrow 2, where it has become an established innovation and networking platform for local, regional and international companies. Over 1000m ² of extra innovation space was added to the 3500 m ² building. Sticking with tradition, this venture also ran for 5 years until 2012. With this, Living Tomorrow has expanded to include concepts – which are a part of daily life but not directly associated with living or workin
	and consumers. Thanks to its participants, the project will stimulate innovation, creativity and synergies between companies, governments, research centres and consumers. Over 500.000 visitors will discover the project, its participants and their products, services & visions during its 5 years expo. Our participants connect with "their future" and - catalysed by Living Tomorrow - initiate strategic synergies between partners
	Since its launch, over 400 companies (including e.g. Colruyt, ENI, ABB, Bpost, Eandis, Elia) have been involved in showcasing their innovations and more than 3,000,000 people have visited the complex. This makes Living Tomorrow an ideal platform for companies to introduce their latest products and/or services to

mass audiences and to get in contact with, observe and learn from their stakeholders and customers. Social, economic and technological developments have been observed and transformed into tangible applications. The showcase of tomorrow's technology literally allows visitors to get acquainted by touching, hearing or using products and services that will make their lives easier in the future. Endeavouring to make lives easier, one of Living Tomorrow's goals is to maintain ongoing discussions with consumers and companies to learn what they consider to be important in their future lives. The initiative also aims to impress the general public with the possibilities of technology. The objective is communication with people and learning from their feedback. In this way, Living Tomorrow not only highlights the possibilities that today's and tomorrow's technologies can offer; it also invites people to exchange ideas, and provide feedback on their experiences during the project, while using a product or while stepping into the future on one of the tours around the complex. The companies behind the scenes see Living Tomorrow as a demonstration platform that strengthens their image and reputation, while also providing a venue for PR activities and events such as conferences, debates and product launches. Their products or services on show are characterized by their wellfounded view on rapidly evolving social and economic trends. Living Tomorrow also has a "TomorrowLab", where they offer innovation services to companies (360° Innovation Program, Ideation & Inspiration, Future Exploration, Strategy Mapping, Future Customer Insights, targeted SME Programs). Location Vilvoorde - Brussels - Belgium Website www.livingtomorrow.com Photo Welkom Bienvenue Welcome

2.2.3 Join-In: Fun Social Network for Senior Citizens - DE

Name	Join-In: Senior Citizens Overcoming Barriers by Joining Fun Activities
Торіс	Smart Living: AAL
Specialization /Activity Description	Join-In developed a comprehensive social networking platform for elderly citizens to encourage and support communication and socialising. The platform includes messaging, memory games, and a challenge to use fitness machines

	(exergame).
Location	virtual
Website	http://www.join4fun.eu, http://www.join-in.hu

2.2.4 Carehome of the Future - BE

Name	Carehome of the Future
Торіс	Smart Living: Smart Home
Specialization /Activity Description	In 2013, Living Tomorrow (see above) created a second facility in a different location (Heusden-Zolder, integrated in a service home for the elderly) in Flanders, called "the Care Home of the Future". It is yet another unique open-innovation centre, but the themes are now care, wellness, comfort and health. As opposed to Living Tomorrow itself, the Care Home of the Future is not open to the general public, but only to professionals and decision makers.
	The project intends to realize a real-life environment focused on quality of life, comfort, care and health enabled by new technologies, products and services.
	Together with its 60 partners and contributors, each leading in their field of expertise, the project will be open for 3 years (2013-2016) for professionals and decision makers in healthcare (health centres, companies, knowledge centres, government, care workers, doctors, pharmacists,). It will act as an innovation demo-platform, a living lab, and a synergy & meeting platform supporting visions, new-market introductions and market development. The intention is to attract at least 10.000 visitors per year.
	The Care Home of the Future defines 12 themes, in collaboration with strong partners, experts on those fields of expertise: Services, Technology, communication and automation, Security, Energy, Environment and garden, Food, Health and wellness, Media, education and information, Arts and leisure, Construction and architecture, (Interior) design, Mobility.
Location	Heusden – Zolder - Belgium
Website	www.carehomeofthefuture.com
Photo	http://www.carehomeofthefuture.com/democenter.php?id=3&page=9

2.2.5 PRoF: P-Rooms of the Future - BE

Name	PRoF: P-Rooms of the Future
Торіс	Smart Living: Ambient Assisted Living
Specialization /ActivityPRoF is a unique concept in the domain of care innovation. It is a t about 300 members (companies, research institutions, architects, 2009 by Jan Van Hecke (a Flemish entrepreneur in the furniture spontaneous bottom-up initiative to create and demonstrate innovati of care for the future. Since 2010, PRoF has come up with 4 ne Patient Room of the Future (PRoF1.0 2010), Personalized Resid Future (PRoF2.0 2011), Private-care Room of the Future (PRoF3.0 20 Recovery Room of the Future (PRoF4.0 2014). These concepts are cr specific innovation methodology, going from a keyword brainstorm to the creation of a concrete solution by a core team of architects ar from the consortium. In the facilities in Poperinge, the concepts ar demonstrated in a number of rooms equipped with furniture and PRoF honours 8 values that are important in the care context of minimal comfort, privacy, security, anti-loneliness, non-stigmatisi inter-generational respect flavibility	PRoF is a unique concept in the domain of care innovation. It is a think tank of about 300 members (companies, research institutions, architects,), created in 2009 by Jan Van Hecke (a Flemish entrepreneur in the furniture world) as a spontaneous bottom-up initiative to create and demonstrate innovative concepts of care for the future. Since 2010, PRoF has come up with 4 new concepts: Patient Room of the Future (PRoF1.0 2010), Personalized Residence of the Future (PRoF2.0 2011), Private-care Room of the Future (PRoF3.0 2012), Patient Recovery Room of the Future (PRoF4.0 2014). These concepts are created with a specific innovation methodology, going from a keyword brainstorm all the way to the creation of a concrete solution by a core team of architects and designers from the consortium. In the facilities in Poperinge, the concepts are concretely demonstrated in a number of rooms equipped with furniture and technology. PRoF honours 8 values that are important in the care context of the future: minimal comfort, privacy, security, anti-loneliness, non-stigmatising solutions, inter-generational, respect, flexibility.
	PRoF welcomes visitors (some 3000 per year) on a regular basis to inspire them about the future living environment in a care context. PRoF operates under the patronage of Mrs. Herman Van Rompuy, wife of the former President of the European Union, and has received a lot of attention (both nationally and internationally). PRoF also awarded a Chair for Research in Care to the University of Ghent in 2014, with the intention to stimulate local and international collaboration among universities. PRoF also has a tradition of handing out awards at the occasion of the introduction of its latest concept (award for care organisation, for research institution, for product/service innovation).
Location	Poperinge - Belgium
Website	www.prof-projects.com

2.2.6 eHealth Musterwohnung Heidberg - DE

Name	eHealth Musterwohnung Heidberg AAL demonstration flat	
Торіс	Smart Living: Ambient Assisted Living	
Specialization /Activity Description	The flat/showroom in Braunschweig demonstrates solutions for a self-determined living in seniority: technical systems as well as assistant solutions. Visitors get ideas how to model their own living environment.	
Location	Braunschweig – Lower Saxony - Germany	
Website	http://www.w-punkt.eu and http://www.smarthome-deutschland.de/smarte- orte/orte-finden/ehealthbraunschweig-musterwohnung-heidberg.html	

2.3 Smart Mobility Showrooms

2.3.1 MVG Multimobil – DE

Name	MVG Multimobil
Торіс	Smart Mobility: Smart Transport
Specialization /Activity Description	An integrated service my the Munich transport utility that not only gathers public transport journey services in one app/website, but also integrates data (and car locations) of 4 private car companies, and Taxis. Bike rental integration is to follow.
Location	Munich – Bavaria- Germany
Website	http://www.mvg-mobil.de/multimobil/

2.3.2 Smart Mobile Labs – DE

Name	Smart Mobile Labs
Торіс	Smart Mobility: Mobile Communication
Specialization /Activity Description	Stationary and mobile demonstrators of mobile communication technology that will be supported by carriers in 1-2 years from now.
Location	Munich – Bavaria- Germany
Website	http://smartmobilelabs.de/

2.3.3 Mobility Lab - ES

Name	Mobility Lab
Торіс	Smart Mobility
Specialization /Activity Description	Mobility Lab responds to the need to create a platform, a living laboratory, to improve transport and convert it into a smart, clean, safe and efficient mobility.
	 Mobility Lab is an initiative wherein the following may participate: Companies that innovate and develop new products, testing them in real life conditions prior to market launch. Governments, who lend their infrastructure for testing for the subsequent incorporation for the improvement of mobility. Citizens, who will experience improvement of infrastructure they use and may actively participate in the testing to guide research towards its real needs.
	 The main services, the Mobility Lab platform provides focus on: Research, development and innovation promotion programmes for the creation of new solutions (products or services) for the management of Smart

	Transport.	
	 European FOT Model for the val for application in the field of Sma Platform for interoperability of n goods and people. Social Network with citizen parti in the territory. 	idation and approval of products and services art Transport. multiple agents associated with the transit of acipation to guide and lead new developments
Location	Gipuzkoa – Baque Country- Spain	
Video	https://www.youtube.com/watch?v=v	vNQHLF9gW3Q
Photo	<complex-block></complex-block>	 The user ask Correction Correction

2.3.4 ETIC - ES

Name	ETIC	
Торіс	Smart Living , Smart Mobility	
Specialization /Activity Description	n ETIC (Smart Cities Innovation Center) is a non-profit business service of operative specialised in the development of products, services and application within the context of Smart Cities.	
	Among their objectives we can talk about the development of R+D+i solutions for companies with products and services in all application areas: Home, Health, Transport, Smart Cities, Power, User Interfaces (Natural User Interfaces NUI) and Kinect, Automobiles, and Mobility (Tablets and Smartphones). Many solutions are demonstrated in their showroom.	
Location	Mondragon – Basque Country - Spain	
Website	http://www.embedded-technologies.org	
Video	http://www.embedded-technologies.org/en-us - Demos	

3 Showrooms Distributed on a Map

Smart Environment Showrooms



Smart Living Showrooms



Smart Mobility Showrooms



4 Conclusion

This document already collects a number of showrooms and demonstrators using embedded technologies for Smart Cities (Living, Environment, Mobility). Additional showroom elements may be added based on results from the CLINES innovation workshops that will be carried out in the coming months.

All the above is resulting in an opportunity for CLINES members to establish partnerships and networking with other third-party European organisations, and allow the companies from the four clusters to interact among themselves and to present their products-services in the specialty areas that are being addressed from CLINES, and associated with embedded technologies.