

Newsletter #1

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HosPilot - Intelligent energy efficiency control in hospitals

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Preface

Dear reader,

In our times where energy saving is matter of our planet destiny, our duty is not only to provide energy efficient solutions, but also to stimulate their usage.

The HosPilot project is exactly an initiative which can help in both.

With its holistic approach, which unites lighting, HVAC, ICT and monitoring technologies, HosPilot is meant to provide the right information to all decision makers involved in hospital refurbishment.

As such, it will give an advice about the best energy efficient technical solutions, as well as stimulate hospitals to refurbish clarifying their potential benefits and possible cost savings.



Nebojsa Fisekovic
Philips Lighting, NL
HosPilot project coordinator
nebojsa.fisekovic@philips.com

foundation of HosPilot methodology are just some of the achievements done in this period...

The complete overview and more details you will find in this HosPilot newsletter.

The HosPilot project started in March and a lot has been done since.

Figuring out what exists in domain of modern technical solutions; learning about hospital requirements and setting up the

Project information

HosPilot is a 3 year project started in March 2009, coordinated by Philips Lighting NL.

The consortium is formed by 11 partners from 6 countries:

- Philips Lighting, The Netherlands
- Philips Iberica S.A.U., Spain
- Acciona Infraestructuras

S.A., Spain

- Tecnalia—Labein, Spain
- VTT, Technical Research centre of Finland
- CSTB, Centre Scientifique et Technique du Bâtiment, France
- Universitair Medisch Centrum Groningen, The

Netherlands

- Servicio Riojano de Salud, Spain
- Granlund, Finland
- Hospital District of South Osthrobotnia, Finland
- Enoleo, Monaco

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Hospital visits in France and Spain



Visit in the hospital of Castelluccio, Corsica
(Serge Sabiani, Philippe Gandolfo, Nebojsa Fisekovic, Dorien Van der Lans)

A number of visits in European hospitals have been performed, to understand the various situations that can be found in relation to energy use performance in lighting and HVAC. The results obtained have been analyzed and then generalized. Some excerpts of the conclusions are presented hereafter:

General

- Most hospitals get information about total energy consumption but they do not have it split amongst the different uses. It is important they have this information before starting to think about where to invest for energy savings.

- It is not common to have complaints about lighting in hospitals. There are more complaints about heating and AC because people are more sensitive in those areas.

Lighting

- The use of light is almost permanent in corridors, hallways, and stairs. There is barely any control or motion detectors and sometimes there are some manual switches that depend on the employee wish.
- Daylight is not used very often and no photocells are available. In these two cases, we can conclude that the potential for saving energy through a control system is quite significant.
- There is a problem with thefts of lamps when using domestic energy

savings lamps, using E-14 or E-27 sockets (Similar to the case in hotels).

HVAC

- General complaint from maintenance and technical staff is that corridors, patient rooms and other areas always have open doors, which makes it very difficult to control the temperature and avoid extra expenses on heating or AC.
- There is a general difficulty adapting temperature to personal requirements due to the fact that patients are ill and not moving while the medical staff is healthy and more active: They have very different needs!

(...) More info about this work is available on request.

« There is general difficulty adapting temperature to personal requirements due to the fact that patients are ill and not moving while the medical staff is healthy and active. »

One of the first tasks of HosPilot consisted of conducting a state of the art study related to energy efficiency in hospitals. The released document roughly shows the current situation within hospitals in Europe, in terms of energy management and consumption, based on the main technological areas, Lighting, Heating, Ventilation and Air Conditioning (HVAC). An overview of the trends and expectancies for the

coming years is also included.

The document includes a list of all the European norms applicable for hospitals on these subjects and some norms specific to individual country. A short description of the norms is provided for a better understanding, and also includes a glossary of the most important terms and definitions. An explanation on how to implement the norms in the different

areas of a hospital is proposed.

The state of the art document (Deliverable D1.1) is publicly available on the HosPilot website in the *Documents* section.

Pilot hospital testimonial: SERIS, Spain

« Nowadays the energy efficiency policies are very important and should be at the top of the agenda for every company. These policies are the best way for reducing the energy consumption and therefore the costs related to energy resources and improving the level of comfort for the end users.

In hospitals, the level of comfort is very important, but we have to

care about the energy resources dedicated for this aim, especially when energy resources are limited. Hospitals consume the energy in many different ways. It is an important task to develop systems for integrating the different technological solutions.

The HosPilot project is a great opportunity to improve the energy efficiency in the Hospital San Pedro and to reduce the energy

consumption. The project gives us the chance for integrating the new technological breakthroughs in the area of energy efficiency as applied to the different aspects of the hospital activity. »



Hospital San Pedro - Antonio Menendez Metreveli
Deputy Director for Infrastructure and technical services

Pilot hospital testimonial: UMCG, The Netherlands

« The UMCG is the only university hospital in the northern part of the Netherlands, and therefore the final point of referral for many patients. The UMCG focuses on healthy ageing in all priority areas: research, clinical care and education. The healthy ageing-related research is bundled in the Institute of Healthy Ageing. This institute forms the shell in which the healthy ageing activities are embedded, i.e. the cohort study LifeLines, the UMCG Center for Geriatric Medicine (UCO) and the European Research Institute on the

Biology of Ageing (ERIBA).

For a big organization such as the UMCG it is very important to invest in techniques and new ways of organizing work to save energy. That is one of our ways to invest in a sustainable society and we feel that we, as the largest employer of the Northern part of the Netherlands, are a role-model and example for many other organizations. In health care, the rising costs are becoming a major issue. We are always training to cut costs where we can, to assure that we

are always able to give the best possible patient care; not only now, but also in the (near) future.

That is why we are proud and glad to participate in the HosPilot project. With this project, the UMCG is able to reach two important goals: reduce costs and invest in a sustainable society.

By taking part in the HosPilot project we will be able to give better quality and comfort in our patient care by investing in ICT solutions. »



Bert Bruggeman

Chairman Board of Directors
University Medical Center
Groningen

Pilot hospital testimonial: EPSHP, Finland

« Energy efficiency in Finland is very important: due to its four contrasting seasons and especially cold winters, energy efficiency gets more emphasis. Heating and electricity are the biggest part of the total energy consumption in our hospital. Heating and electricity consumptions per year are together about 2,5 million euros. Possibilities to use different energy sources such as geothermal power and wind energy have been investigated.

Hospital District of South Ostrobothnia became part of this project due to previous cooperation and contacts in other

projects with VTT- Technical Research Centre of Finland and planning organization Olof Granlund Oy.

Hospital District of South Ostrobothnia is one of the three pilot hospitals. In planning pilots in our hospital, we have emphasized comfort for patients and personnel. Pilot target 1 is to get results in electricity consumption by using technology aimed at saving electrical energy. After one year we expect to see how much new technology can reduce electricity consumption. Pilot target 2 in HVAC-technology is to get detailed consumption

measurement in real time. For the purpose of drafting new systems, energy meters will be installed in every hospital building in order to obtain energy consumption figures for each. The expectations can crystallise in one phrase: to be part of the HosPilot project is to reduce energy consumption in our hospital. »



Timo Huhtamäki, Jari Hakala and Jaakko Pihlajamäki

Hospital District of South
Ostrobothnia

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Contact:
Dr. Nebojsa Fisekovic
Philips Lighting AIG
5611 BD Eindhoven
The Netherlands
Phone: +31 40 27 55314
nebojsa.fisekovic@philips.com

<http://www.hospilot.eu>

Do you feel concerned about the HosPilot initiative ? We invite you to consult our public website at <http://www.hospilot.eu> where you will have access to all public deliverables of the project. You can also join our HosPilot LinkedIn group, or contact us directly by sending an email to the project coordinator.

We are looking forward to hearing from you !

Upcoming events

HosPilot will be attending the following events :

- **High level Event on ICT for Energy Efficiency, 23-24 February 2010, Brussels**

Organised by the European Commission's Information Society and Media Directorate-General, in cooperation with the Spanish Presidency of the European Union.

After the ICT4EE 2009 High Level Event which aimed to accord visibility to the potential of ICTs in enabling energy effi-

ciency, this 2010 event aims to become a vehicle to drive progress in the transition to an energy-efficient and low-carbon economy.

HosPilot will be exhibiting at this event.

- **6th international conference on Improving Energy Efficiency in Commercial Buildings, 14-15 April 2010, Frankfurt**

The conference is addressed to energy policy makers at international, national, and regional

level, academic and energy efficiency experts and researchers, ESCOs, utilities, and buildings energy and environmental managers, buildings engineers and architects, and commercial property investors, with the aim to promote and diffuse the concept of energy efficiency in new and existing commercial buildings and enlarge the market for low consumption and sustainable buildings.

An HosPilot paper will be submitted and presented at this conference.

Past events

HosPilot has already been presented in a number of conferences over the last few months, including the Spanish National Congress of Hospital Engineer-

ing (Santiago de Compostela) , the ECTP-E2B annual 2009 conference (Brussels), the ICT for Sustainable Homes event (Nice) and the Green and Con-

nected Forum (Strasbourg). All presentations are available for download on the HosPilot website in the *Documents* section.



Planned HosPilot participations in conferences



HosPilot at ECTP-E2B 2009 conference (Esa Nykänen) and ICT for Sustainable Homes 09 (Pascal Torres, Borja Tellado)