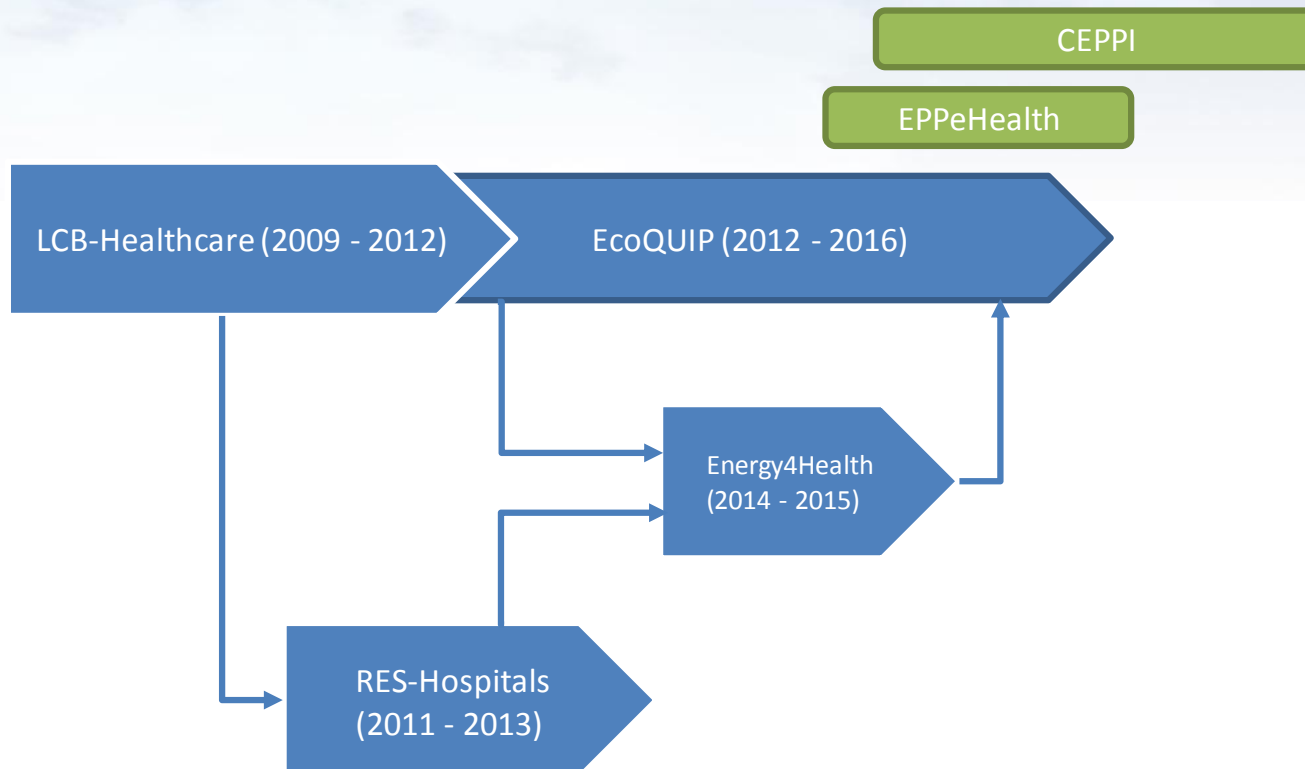


EU Network Projects on Sustainable Energy Solutions for the Healthcare Sector

Angus Hunter
EuHPN Workshop
Brussels, 17 November 2015
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EU projects: energy and healthcare sector

2009 2010 2011 2012 2013 2014 2015 2016 2017 2018





optimat

Sustainable healthcare through outcome-based procurement

LCB Healthcare (2009 – 2012)

Public Procurement Network on low carbon buildings in the healthcare sector including demonstration projects in England, Netherlands, Norway and Poland

EcoQUIP (2012 – 2016)

Successor to LCB Healthcare but more ambitious in breadth and fostering joint actions

- Six hospitals from England, Hungary, Italy, Netherlands and Poland
- Joint actions on energy, patient experience, environment
- Innovation Procurement Leadership programme

EPPeHealth (2015 – 2016)

European public procurement action on ICT for healthcare

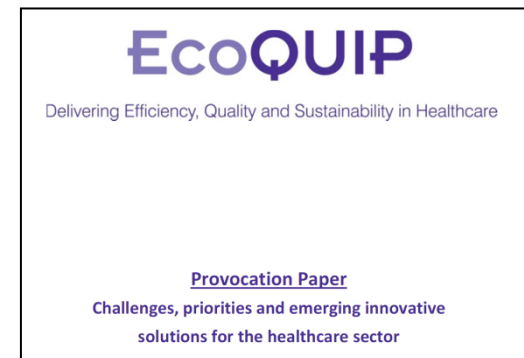
- Denmark, Poland, Spain,

CEPPI (2015 – 2018)

Coordinated energy related PPI actions for cities

- Birmingham, Budapest, Castellon, Valencia, Wroclaw

www.optimat.co.uk

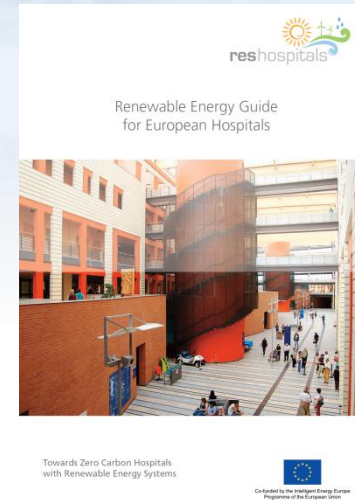


Lots of publications and case studies at www.ecoquip.eu

Sustainable energy solutions for healthcare

RES-Hospitals (2011 – 2013)

- Pilot projects with 18 hospitals in France, Hungary, Italy, Netherlands, Poland, Spain. UK (Scotland)
 - Business case to achieve 50% RES by 2020
 - Future options for zero carbon
- Good Practice Guide with case studies
- www.res-hospitals.eu



Energy4Health (2014 – 2015)

- Strategic policy roadmap for the EU Demand Side Action Plan
 - Improve uptake of innovative energy solutions in the healthcare sector
- Based on practical experience from LCB-Healthcare, EcoQUIP and RES-Hospitals
- www.ecoquip.eu/about-ecoquip/associated-projects.html

Energy4Health

A Strategic Policy Roadmap to
Improve the Framework Conditions that
Influence the Demand for and
Market Uptake of Innovative Energy Solutions
in the Healthcare Sector

March 2015

Background to Energy4Health

- EC Demand-side Action Plan (2012 – 2015 and beyond)
 - Based on COM(2012) 582 final, 10.10.2012
 - Drive forward growth and economic recovery through demand-led procurement of innovations.
- 6 projects developing policy roadmaps for demand-led innovation:
 - Energy4Health
 - BUILD-THE-FUTURE – plus energy buildings
 - EV-CONNECT – charging infrastructure for electric vehicles
 - MAPDRIVER – ICT innovations in transport
 - RESIDE – innovation in building refurbishment
 - SUNROAD – uptake of EU PV innovations

http://ec.europa.eu/growth/industry/innovation/policy/demand-side-policies/index_en.htm

Energy4Health

- How to increase demand for more energy efficient and low carbon solutions in the healthcare sector
 - Healthcare sector accounts for some 5% of CO2 emissions in the EU
 - Huge potential lead market opportunity for innovative European suppliers of sustainable energy solutions



Develop and secure stakeholder commitment for a strategic policy roadmap to improve the framework conditions that influence the demand for and market uptake of innovative energy solutions in the healthcare sector



Baseline scenario

- 🌐 Significant consumer of energy
- 🌐 Rising energy prices
- 🌐 Increasing demand for healthcare
- 🌐 Abdication of policy leadership



Vision & Roadmap

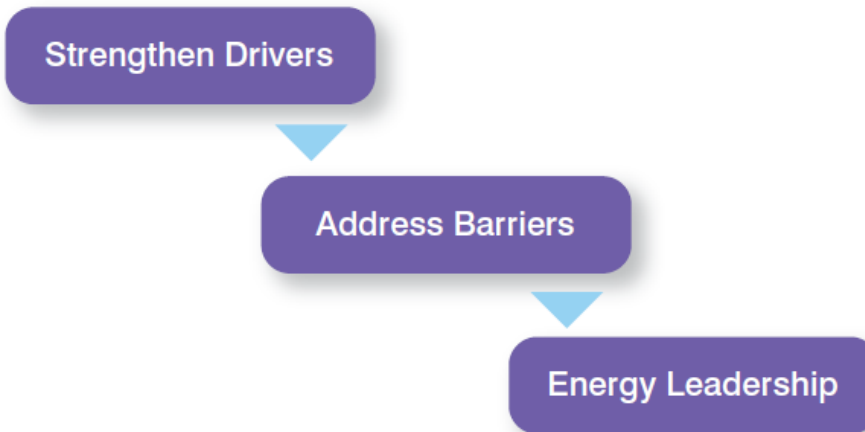


Figure 2. Overview of Energy4Health roadmap and Vision 2025 statement.



Energy4Healthcare VISION 2025

The European healthcare sector has become a global leader in energy efficiency and community renewable energy systems. Many are becoming both carbon and cost neutral. The average cost of energy is less than 1% of healthcare budgets and the sector is well on its way towards reducing its 2050 carbon footprint to less than 20% of 1990 levels.

Eight Operational Objectives

1. Encourage and facilitate the development of sector-level NEEAPs and NREAPs.
2. Provide evidence of the scale of fossil fuel use in the European healthcare sector.
3. Improve knowledge exchange on sustainable energy management in the healthcare sector.
4. Raise awareness of alternative funding options for transformation of energy infrastructures.
5. Encourage community and district level energy partnerships.
6. Raise awareness of the link between energy efficiency and patient well-being.
7. Develop a European benchmarking database of energy consumption and production.
8. Encourage the sustainable energy technology sector to consider the healthcare sector as a lead market for new and improved solutions.

Plan A

-  Implement the Roadmap action plan through Horizon 2020 project
-  EE-09-2015: Empowering stakeholders to assist public authorities in the definition and implementation of sustainable energy policies and measures

Plan A

- Implement the Energy Efficiency Action Plan through Horizon 2020 project
- EE-09-2015: Empower energy auditors to assist public authorities in the definition and implementation of sustainable energy measures

Plan B

-  Promote opportunities for collaborative action through the EcoQUIP Joint Action Group on 'Energy' (Demonstrate Energy Leadership)
 - Learning workshop on Hydrogen Fuel Cell CHP
 - Encourage EcoQUIP hospitals to exploit H2020 Calls
-  Engage with the WHO Europe group on environment and health (Strengthen Drivers for Action)
 - Contributing to their working document on 'Environmental Sustainability and Health Systems'
 - Will feed into the 6th Inter-Ministerial Conference of European Environment and Health Ministers in 2017

Examples of H2020 Calls (2016/17)

- EE-07-2016/17: Behavioural change towards energy efficiency through ICT
- EE-09-2016/17: Engaging and activating public authorities
- EE-11-2016/17: Overcoming market barriers and promoting deep renovation of buildings
- EE-19-2016/17: Public procurement of innovative solutions for energy efficiency
- LCE-21-2017: Market uptake of renewable energy technologies

New for 2016/17 work programmes

Inducement Prizes

- Horizon Prize for a ‘Combined Heat and Power (CHP) Installation in a Hospital using 100% Renewable Energy Sources’
 - Euro 1 million
- Horizon Prize for ‘Integrated Photovoltaic System in European Protected Historical Urban districts’
 - Euro 0.75 million

*Rules published in 2016 – applications
2018/19*

2. Horizon prize for a Combined Heat and Power (CHP) Installation in a hospital using 100% Renewable Energy Sources⁸⁹

The integration and use of renewable energy in buildings for heat and power generation still encounter unsolved technological problems linked to the security and reliability of energy supply and related costs. Partly, it is due to unpredictable fluctuation of some renewable energy sources, such as solar or wind. The difficulty is even greater in cases where a 100% security of energy supply is essential such as for hospitals and especially when several renewable energy sources are used.

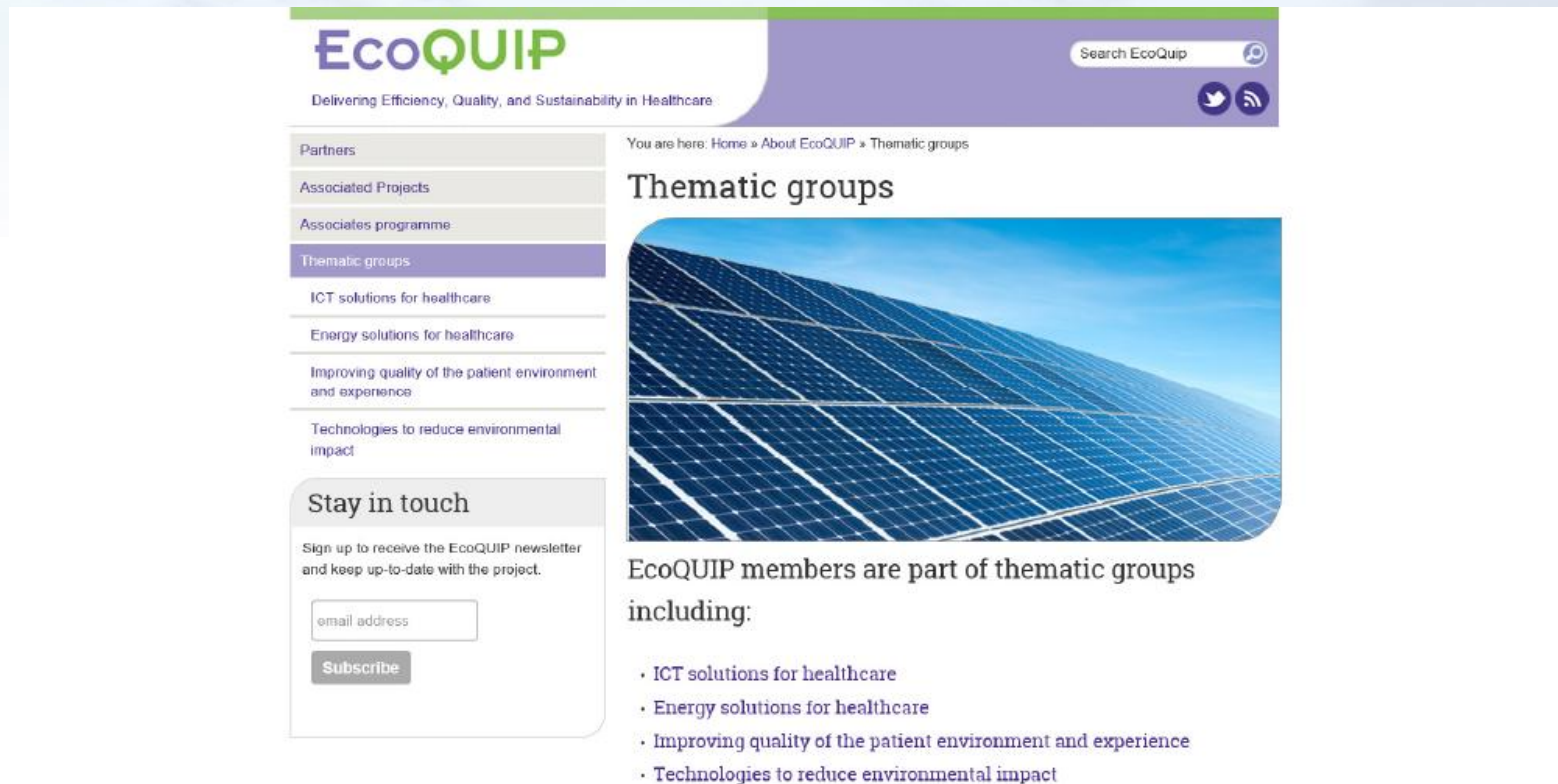
This inducement prize will reward a hospital that has an innovative and within its premises perfectly integrated combined heat and power (CHP) installation. This installation has to use at least three different European renewable energy technologies, include energy storage component(s) and be able to provide 100% of hospital's annual needs for energy consumption. In this context any renewable energy source is allowed.

3. Horizon prize for Integrated Photovoltaic System in European Protected Historic Urban districts⁹¹

In Europe, architectural and planning rules for protected historic buildings lead to major technical constraints in integrating renewable energy such as photovoltaic. These problems call for innovative and creative solutions for building integrated photovoltaic that must combine aesthetic and photovoltaic technology applied in historical buildings that represent the artistic and cultural heritage of a city.

This inducement prize will reward a European protected historic urban district that has perfectly integrated in its buildings a photovoltaic system to generate and supply electricity for its own consumption. In this context the photovoltaic system includes all the necessary components to supply power within a district.

Further information
www.ecoquip.eu :



The screenshot shows the EcoQUIP website interface. At the top left is the EcoQUIP logo with the tagline "Delivering Efficiency, Quality, and Sustainability in Healthcare". A search bar and social media icons are on the right. A breadcrumb trail reads "You are here: Home » About EcoQUIP » Thematic groups". A left sidebar contains a menu with "Thematic groups" selected. The main content area features a large image of solar panels and the heading "Thematic groups". Below this, it states "EcoQUIP members are part of thematic groups including:" followed by a list of four categories.

EcoQUIP
Delivering Efficiency, Quality, and Sustainability in Healthcare

Search EcoQUIP

You are here: Home » About EcoQUIP » Thematic groups

Thematic groups

EcoQUIP members are part of thematic groups including:

- ICT solutions for healthcare
- Energy solutions for healthcare
- Improving quality of the patient environment and experience
- Technologies to reduce environmental impact