

European Congress Healthcare Planning and Design

Lead Market Initiative: Low Carbon Buildings in the Health Care Sector

Overcoming barriers to innovation

The challenge of buying better, low carbon building solutions

Workshop Wednesday 8th June 2010

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Workshop Structure

- Introduction and context
- Innovative procurement & best practice examples; UK and Netherlands (20 min)
- Interactive session and discussion (20 min)
- LCB HEALTHCARE Network (10 min)
- Closing comments

1. Introduction and context



What's it all about?

- **Innovative procurement** of low carbon goods & services for the healthcare industry by public procurers.
- **Customers** can influence the industry by:
 - setting more ambitious requirements and stricter carbon standards.
 - providing a **credible demand** for better goods and services



Low Carbon Healthcare Buildings

... two questions

1. **Why** don't we see more, and better, examples of low carbon buildings in the healthcare sector?
2. **Why** isn't the market/industry delivering the goods and services we need for low carbon buildings?

Why should we do so?

- **Reducing and adapting to the threats of Climate Change driven by:**
 - **Morals:** climate change will have a significant impact on health and well-being
 - **Regulations:** e.g. EU commitment reduce emissions by 20% of the 1990 level by 2020.
 - **Finance:** The health sector owns and operates energy intensive facilities - energy and carbon will become more expensive



Why should we do so?

- **From a healthcare property and facilities point of view:**
 - New infrastructure & equipment needs to be future proof
 - Existing buildings and facilities need to adapt



Delivering new low carbon building solutions

- *BUT:*
 - Existing goods and services cannot deliver the scale or pace of change necessary
 - **New solutions are needed**
 - Without them we will fail - innovation is **necessary**
 - *Are we ready to innovate and set new standards, or do we wait for the market?*

LCB: HEALTHCARE Pilot projects

- Examples of projects that aim to drive innovation and procure low carbon building solutions:
 - Rotterdam Erasmus MC – Netherlands
 - Rotherham NHS Foundation Trust – UK
 - Nottingham University Hospital NHS Trust - UK

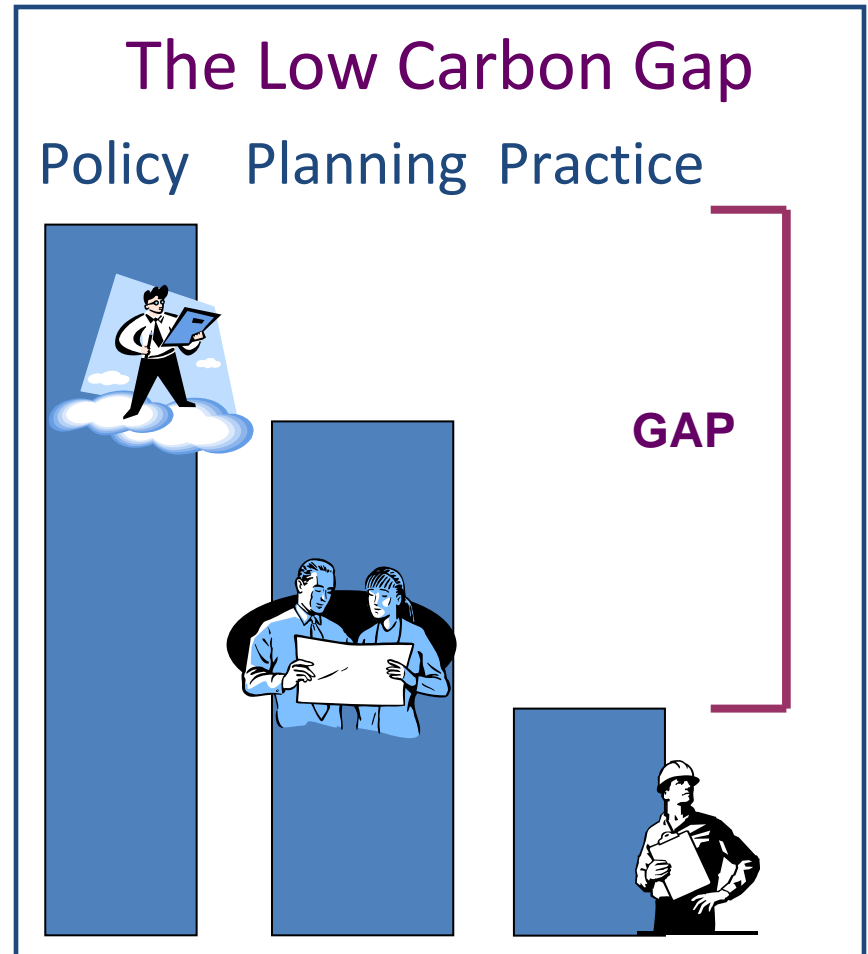
2. LCB: HEALTHCARE Pilot projects

UK Examples using 'Forward Commitment Procurement'



Low Carbon – policy into practice?

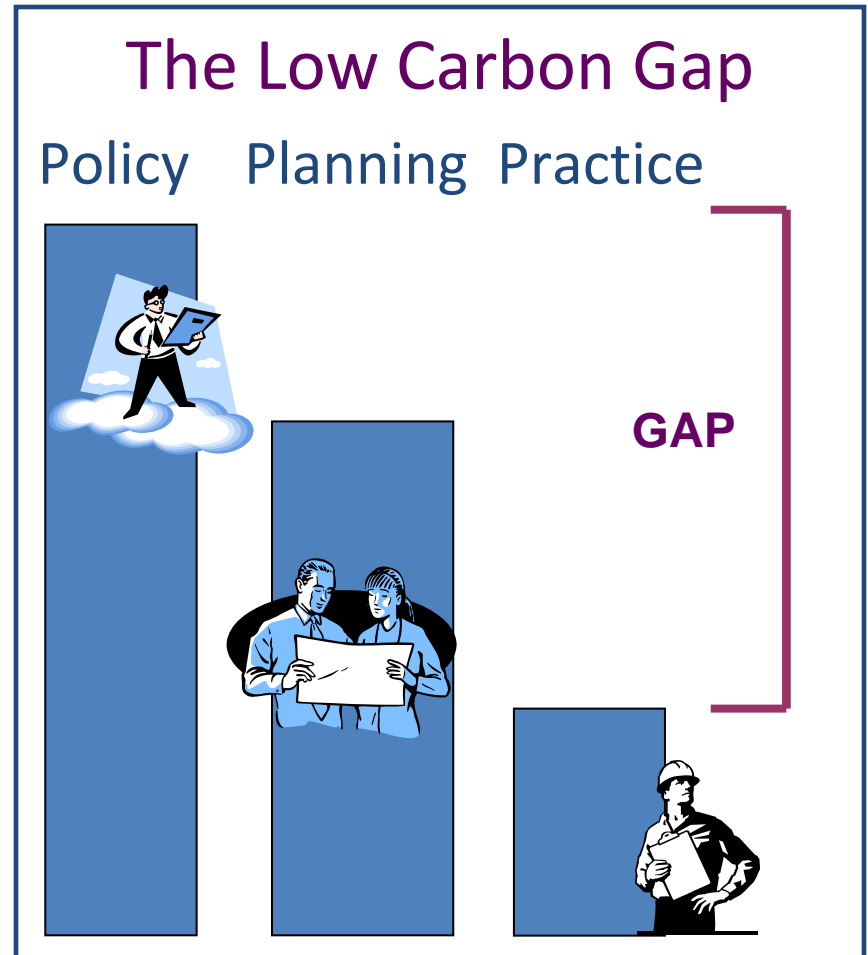
- Policy ambitions start high
- Reduced during design
- Become lower at the planning and build stage
- Policy ambitions not delivered in practice



Low Carbon – Policy to practice?

- Why?

- Policy practice disconnect / lack of follow through?
- Percieved as too risky, expensive, time consuming, ugly?
- “Innovation not our job”?
- Solutions not available or unfamiliar?
- Supply chain management failure
- Result – carbon reduction not a reality / far too slow



FCP: a practical demand side tool

- This is a new and unfamiliar role for many in the UK public sector.
- **How can we help public sector procurers buy the new products and services they need sensibly?**
- FCP was developed as a **practical process** for public procurers to use to drive the market for innovation and deliver better services.
- FCP Know How Programme developed

“A procedure makes public sector procurers comfortable – they have a process that they can follow and justify at each stage.”



Closing the Gap: UK Examples using 'FCP'

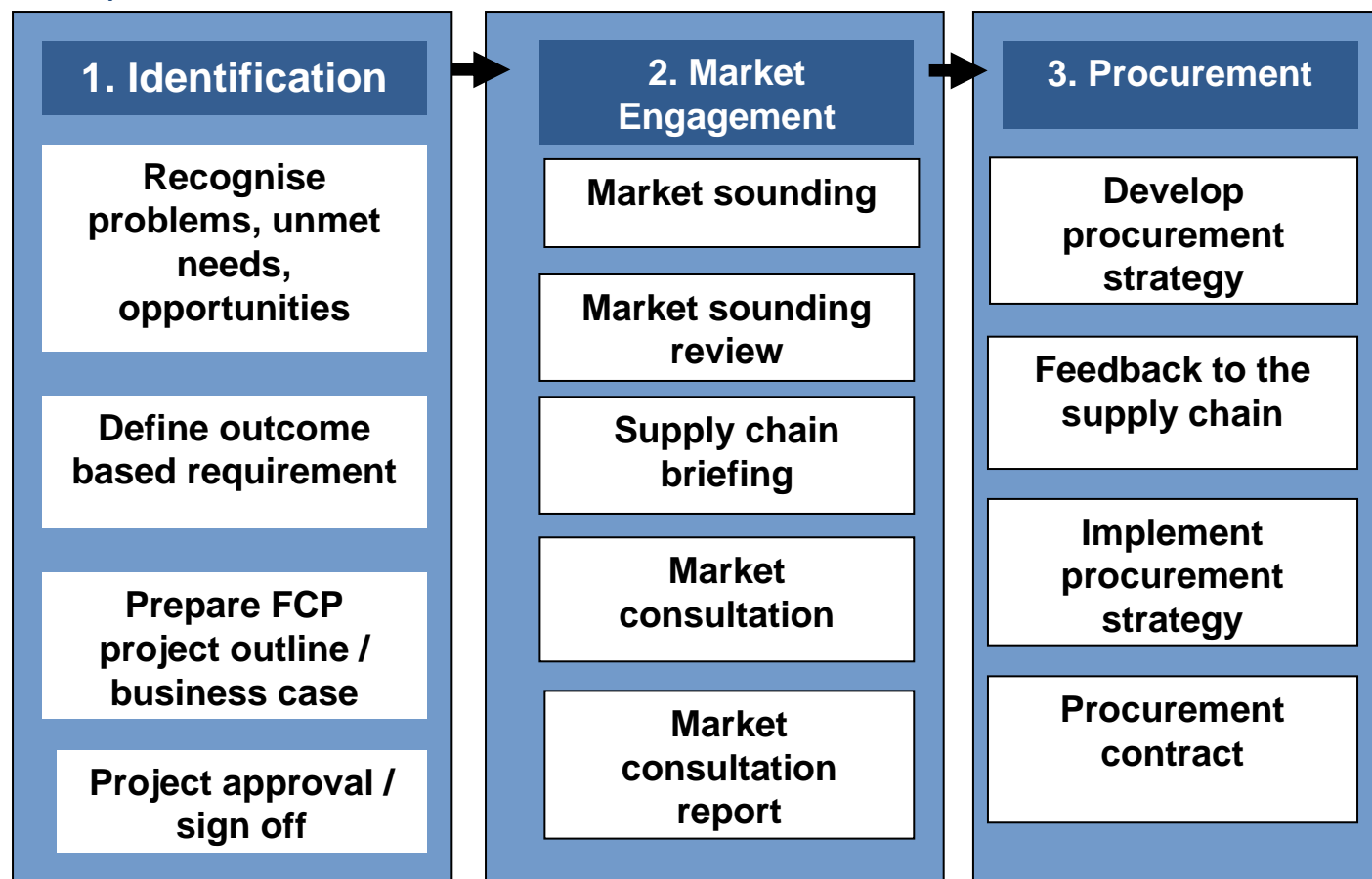
- **Forward Commitment Procurement (FCP)**
- A critical factor for suppliers of new products is the **confidence that there will be a market** for the new product once it is proven.
 - The amount of investment made by developers and by their suppliers depends on this confidence
- The future users of the new products can significantly affect investments by suppliers by **making the future market as certain as possible** (while retaining competition)
- Forward Commitment Procurement (FCP) procedure developed to enable public procurers to make this **future market visible and credible** without either procurer or supplier incurring unmanageable risks.

FCP: a practical demand side tool

- FCP thinking drawn from innovation policy, procurement professionals, and critically, suppliers
- FCP mirrors the active approach to **supply chain management** taken by the private sector
 - Clearly articulate future needs – **outcomes** not detailed specifications
 - Search out, stimulate and **engage with supply chain**
 - Provide a credible promise of future sales – **create demand**
 - Provide demand side information and support delivery
 - (while maintaining competition and compliance with the legal framework)

The FCP Process

- 3 stages:
- know what you want – tell the supply chain – buy it
 - i.e. provide a *credible articulated demand*



FCP Pilot Projects in the UK

- **FCP demonstration project** saved £5 million and removed major wastestream from landfill
- **A portfolio of FCP projects in the healthcare sector now well underway including:**
 - **Rotherham NHS Foundation Trust:**
 - **Ultra Efficient Lighting for Future Wards**
 - **Zero Waste Solution for NHS Trusts**
 - **Nottingham University Hospital NHS Trust**
 - **Ultra low carbon energy solution to replace coal fired boiler**
 - **Refurbishment for energy efficiency**



Example: Rotherham NHS Foundation Trust

- **Ultra Efficient Lighting For Future Wards**
 - Step change in energy efficiency and patient experience,
 - cost effective,
 - progressive improvements, future proofed
 - financing
- **Market sounding prospectus published**
 - Prior Information Notice in OJEU - over 40 responses – published Company Directory
- **Market engagement workshop**
 - 75 participants, refined requirement, facilitated interaction, recommended procurement approach
- **Follow the case study at:**
 - <http://lowcarbon-healthcare.eu/>



The Rotherham **NHS**
NHS Foundation Trust

Future Ward Lighting Project

Market sounding regarding the supply of innovative and ultra efficient lighting systems for The Rotherham NHS Foundation Trust "Future Ward" refurbishment programme



The Rotherham NHS Foundation Trust

Market Sounding Prospectus

September 2008

This is not a call for tenders or a pre-qualification exercise.

It is a market sounding exercise to provide advance information of requirements and open a dialogue with the supply chain. The results will be used to inform future procurement specifications and strategies.

What did the market engagement achieve?

- Opened up the market to new suppliers and new supply chain connections were made
- Provided the Trust with an industry wide view and insights into capacity and capability of the supply chain to deliver requirement
- Helped to galvanize the supply chain around the supply of a solution **and consortia formed to respond.**
- Created evidence of market demand for innovative lighting and stimulated investment
- Created a robust and credible procurement process
- **The procurement strategy and specification was informed by the process and the market was primed to respond to the tender – and they did....**



Next step: Rotherham NHS Foundation Trust

- **OJEU advert** published in May 09 for **fully managed service**
- An **outcome based specification** with the following requirements
 - a step change in patient experience
 - a demonstrable step change in energy efficiency
 - progressive improvements in energy efficiency and operational performance over the life of the project
 - fully installed, maintained and future-proofed service.
 - solution transferable to other locations within the Trust and the wider NHS
- **Competitive Dialogue** procedure (in process)
- Routes to the **wider market developed**
- **Forward commitment:** 2 phase contract 3 years + 4 years



Feedback from procurers: new projects

- **Rotherham NHS Foundation Trust**

- 1: Ultra Efficient Lighting for Future Wards (2008)
- 2: Zero Waste Solution for NHS Trusts (2009)
- 3: Zero Waste – Zero Infection Mattress (2010)

“Now we have a process to address unmet needs we are more willing to recognise them – and act.”

- **NEXT - Embedding FCP:**

- Unmet needs programme will be designed to as part of the Trust’s ‘Rapid Improvement Programme’ leading to a ongoing programme of FCP projects

- **Follow the case study at:**

- <http://lowcarbon-healthcare.eu/>



Feedback from suppliers

Rotherham UEL project

- “This is what gets us excited. There is somebody here who doesn’t want to carry on doing the same old thing, just chipping away at energy efficiency but saying what they really need – a step change”
- “What is great about this [RFT FCP] process is the commitment – the 7 year programme gives a timeframe we can really work with to plan and bring new solutions forward”
- “This project made us rethink our approach and stopped us just turning up and installing to LG2”



FCP process

1. Know what you want

Identify **unmet needs** – be ambitious and ask for **what you want** not what you think you can get – use **outcome based specifications**

2. Tell the supply chain

Convince them that **you are serious** – get their **feedback** to inform the procurement process and specification - facilitate **interaction** between suppliers

3. Buy the solution (subject to performance etc.)

Procurement strategy – use of **competitive dialogue** – **forward commitments** – **progressive improvement**

New project example: Identifying an unmet need

Nottingham University Hospital NHS Trust identified ‘unmet needs’.

- The central coal fired boiler plant needs to be decommissioned and replaced
- The NHS has ambitious carbon reduction targets; any new solution will need to be ultra low carbon and with minimal NOx and other emissions.
- The new solution will be commissioned and in operation at a time when energy and carbon costs are set to increase;
- **“The Trust needs a future proof solution that uses its primary energy source in the most efficient way to supply heat and power to its facilities and where feasible sell back ‘low carbon’ energy to the electricity grid”.**
- With challenging efficiency savings for the NHS predicted over this timeframe **“the Trust will need to consider and explore innovative means to finance an optimal solutions that meet the requirements”.**

Translated **unmet needs into outcome based requirements**

To be the subject of a **market sounding and market consultation**

Normal process would be to commission consultants report – now the consultant helping to **define needs - not solutions.**

Ultra Low Carbon Energy Solution

- “The Trust requires its current coal fired boiler to be decommissioned and replaced with a reliable, cost effective, clean and ultra low carbon means of delivering power, heat and cooling to the buildings on the NUH City site.
- Any solution would need to ensure suitable resilience and business continuity capacity and
- provide options for commercial arrangements and financing to spread the cost of capital investment”.



Cultural change

- FCP is a change in the culture
 - “FCP is a radical change in the way we do things” Director Estates, RFT NHS
 - “FCP is the future of procurement in the NHS” Chief Engineer, Dept Health

“To use FCP as a tool you need to know what you want to achieve, be committed to achieving it and be able to convince the market that you really want it.”



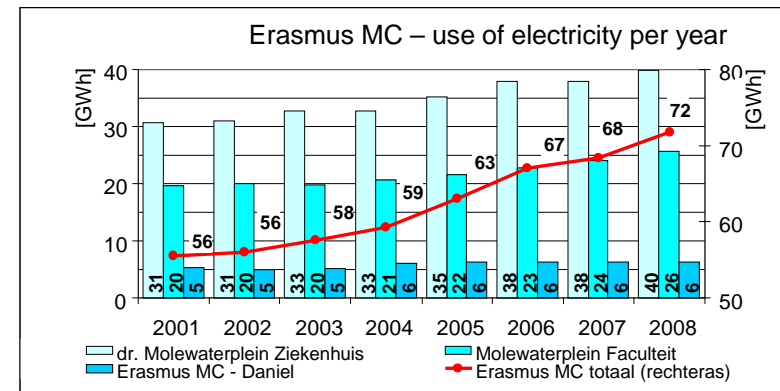
2. LCB: HEALTHCARE Pilot projects

Example from the Netherlands: Rotterdam Erasmus MC



Rotterdam ErasmusMC

- 185.000 m² new university hospital – high ambitions to become a ‘green’ hospital.
- Hospital under construction
- Vasts amounts of machines, equipment, goods and services to be procured (on a continuous basis)

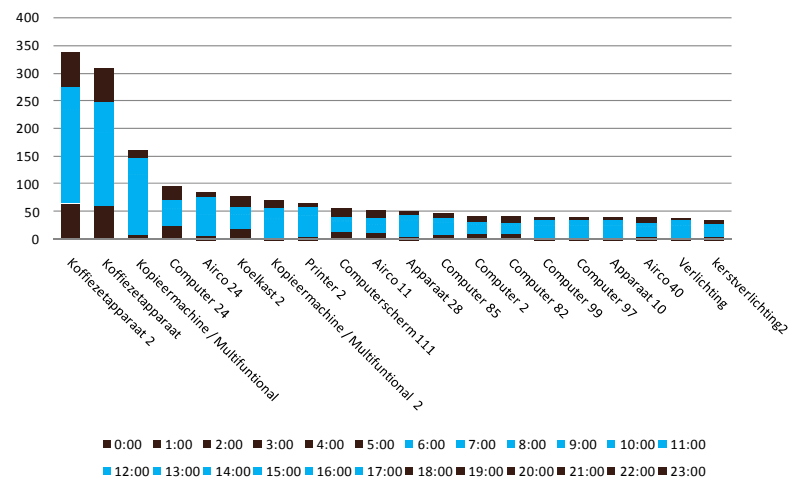


Rotterdam ErasmusMC

- **Smart procurement at ErasmusMC:**
 - Top down: policy setting
 - Bottom up: building of expertise at procurement level (learning by doing)
- **How?**
 - By using smart plugs from Plugwise
 - Measuring and feeding back into output-specifications



Top 20 verbruikers normmeting (kWh)



Rotterdam ErasmusMC

Procurement projects at hand:

- Ultrasoundmachine & MRI (radiology department)
- Coffee-machines (~ 500 units)

Innovative procurement:

- Bed-washing facility (70.000 beds a year)
- Autoclaves at CSD

- **Next steps?**

3. Interactive session and discussion



Interactive Discussion

- **Overcoming barriers to innovation:**
 - the challenge of buying better, low carbon building solutions
- **Over to you:**
 - 2 questionswell 3 actually



The challenge of buying low carbon building solutions

1. **Why** don't we see more, and better, examples of low carbon buildings in the healthcare sector?
2. **Why** isn't the market delivering the goods and services we need for low carbon buildings?
3. **What** would help **you** to buy / design / deliver best possible LCB building solutions?



15 minutes

Record your thoughts

Feedback **3** key points

4. LCB:HEALTHCARE Procurement Network



Why Low Carbon Healthcare Buildings / Facilities?

New CO2 evidence means climate change predictions are 'too optimistic'

The Times, 2007

GE believes that the key challenges for the EU to address will be in the following areas:

- **Invest in efficient infrastructure - to create a low carbon energy sector and affordable and accessible healthcare for a healthy economy**

From General Electric's response to the European Commission's Consultation on the future 'EU 2020' strategy

In January 2009 NHS chief executive David Nicholson launched NHS plans for reducing carbon emissions. The strategy, [Saving Carbon, Improving Health](#), sets out a pledge for the NHS to become one of England's leading sustainable and low carbon organisations and to meet the Government's target of an 80 per cent reduction in carbon emissions by 2050.

NHS Confederation website

[European Commission Wants to Raise Carbon-Emissions Target to 30%, an Industrial Info News Alert](#) 31 May 2010 04:10 GMT

... The **European Commission** wants to raise Europe's **carbon emissions** reduction target from 20% to 30% by ... on the Wind Energy, Geothermal, Hydroelectric, Landfill **Gas**-to-Energy and Utility-Scale Solar power plants throughout North

EU Politics Today

LCB HEALTHCARE ... a reminder

- Partnership UK, Netherlands, Norway, Poland
- Academic, policy, procurement, health sector partners
- Share, exchange and develop experience on use procurement as innovation policy instrument
- Self funding trans-national network
- Undertake activities to stimulate demand for and support procurement of innovative goods and services
 - Strategic Review of current practice
 - Co-ordinated pilots/joint activities
 - Piloting Know How / Continuing Professional Development
 - Develop a sustainable and open European network
- National pilot projects
- LCB HEALTHCARE hub
- Communicate lessons learned

What We Will Do

Activities

- Review current practice
- Develop a European Procurement Network
- Encourage the sharing of good practice and mutual learning
- Undertake demonstrator pilots across four countries
- Disseminate lessons learned

Outputs

- Virtual network of procurement stakeholders across Europe
- State-of-the art report
- Quarterly eNewsletters
- Good practice case studies and eLearning events
- International conference
- Good practice guide
- Collaborative innovation projects

Timeline

2010

- Initiate national pilots
- Establish website and virtual network of stakeholders
- Stakeholder consultations
- Publish state-of-the-art report

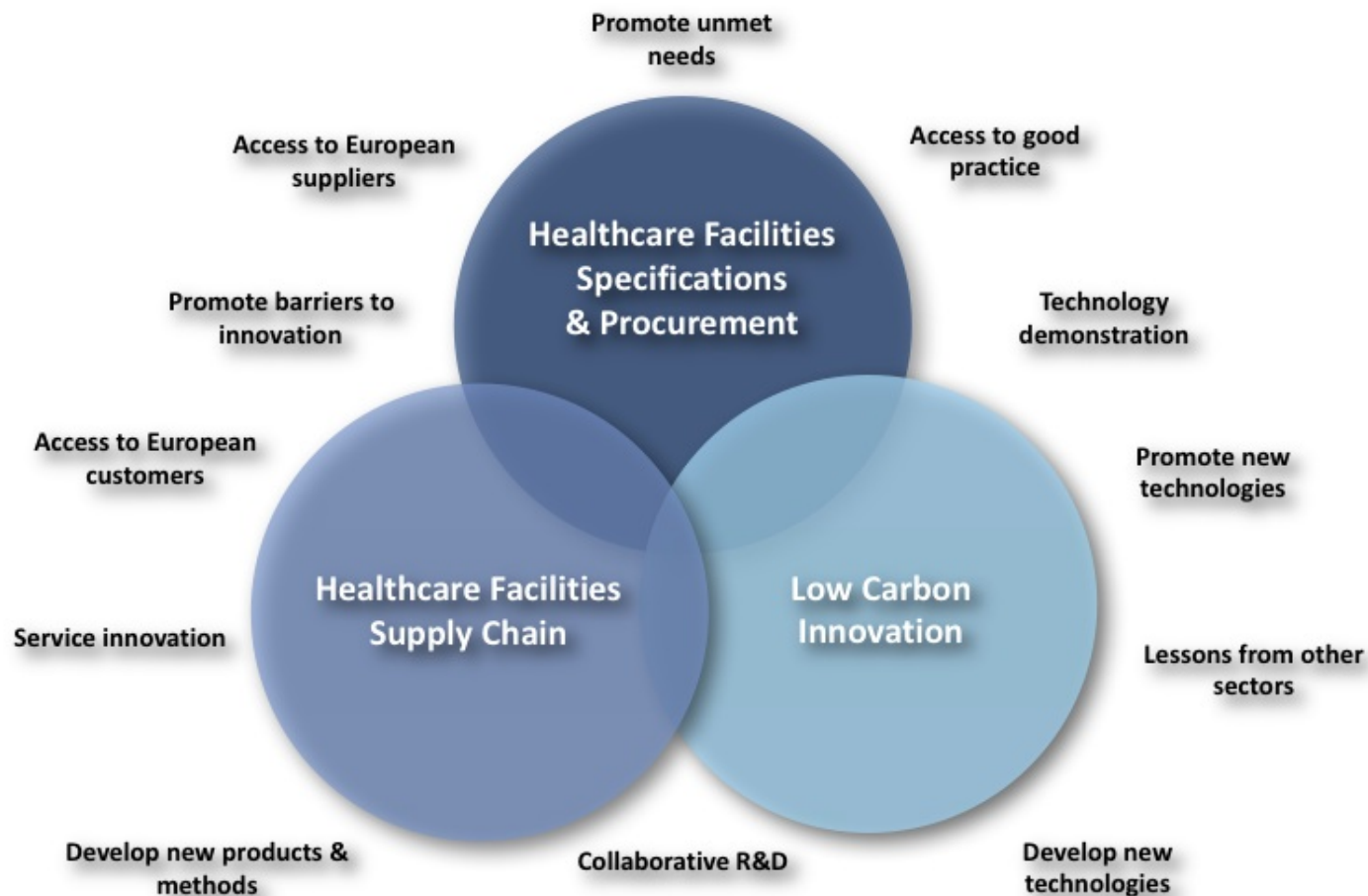
2011

- Quarterly newsletters
- eLearning events
- Interim review of national pilots
- European Stakeholder Conference

2012

- Good practice guide
- European Joint Call for collaborative R&D projects
- Proposals for a self-funding network

How Can You Benefit Individually?



Benefits of a European Network

- Economic and societal benefits from innovation flow from diffusion and adoption
- Balance of incentives in EU biased towards idea generation and development
- Public procurement driver of adoption, especially in some sectors (e.g. public sector 30% UK construction market)
- But public sector faces barriers to successful procurement innovation
 - Co-ordination across many organisations
 - Lack of necessary expertise in many organisations
 - Culture of risk aversion
 - Lack of information and technical knowledge
- Networking builds critical mass, transfers knowledge and skills, increases confidence and enables us to tackle common societal problems

Benefits of a European Network

- By joining the European LCB Healthcare Network you will be able to learn from and communicate with other stakeholders that have a common interest in reducing the carbon footprint of healthcare buildings. Over the next three years, you will be able to take advantage of the following functionality and resources:
 - Virtual network of procurement stakeholders across Europe
 - Quarterly eNewsletters
 - Good practice case studies and eLearning events
 - Collaborative innovation projects

How to Join LCB Healthcare – Website Access

LCB healthcare-Working together to reduce the carbon footprint of healthcare buildings - Internet Explorer provided by Dell

http://lowcarbon-healthcare.eu/

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LCB-HEALTHCARE

Procuring better building solutions

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Working together to reduce the carbon footprint of healthcare buildings



Welcome to the LCB Healthcare Network

"No one knows the precise size of the health sector's global climate footprint but we know that it is substantial...Reducing the [sector's] climate impact is as complex as the broad diversity of health systems that exists in the world" (World Health Organization and Health Care Without Harm, 2009)

LCB-Healthcare stimulates demand for innovative low-carbon solutions for the healthcare sector by providing procurement decision makers with the knowledge and tools to achieve more sustainable buildings within their budget constraints.

[Find out more about LCB Healthcare »](#)

Latest News

[Zero Waste Healthcare - it's all about commitment](#)
Posted: May 21, 2010

[REGISTER NOW !!!](#)
Posted: May 12, 2010

[Market Consultation and Procurement Strategy Workshop: Delivering a Zero Waste solution](#)
Posted: May 12, 2010

[Tell Us What You Think !](#)
Posted: Apr 27, 2010

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Events

The latest events from LCB-Healthcare and the wider healthcare procurement sector

[Calendar of Events »](#)

Case Studies

Better understanding the barriers to innovation and procurement practices through a series of innovation procurement case studies

Lead Market Initiative

The LCB-Healthcare project is one of three [European Public Procurement Networks](#) that have been established under the EU [Lead Market Initiative](#).

Internet | Protected Mode: On 100%

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Benefits of a European Network – News Access

LCB healthcare-Working together to reduce the carbon footprint of healthcare buildings - Internet Explorer provided by Dell

http://lowcarbon-healthcare.eu/cms/news/

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- [Healthy Hospitals, Healthy Planet, Healthy People - climate change in healthcare](#)
- [COMING SOON - A European Procurement Network !!](#)
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Lead Market Initiative for Europe

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Benefits of a European Network – News Access

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Zero Waste Healthcare - it's all about commitment

The Environmental Sustainability KTN was recently pleased to help the Rotherham Foundation NHS Trust further novel approaches to procuring key services sustainably when we facilitated a successful Zero Waste Market Consultation Workshop at the Trust's Woodside headquarters on 18th May.

Read more [here](#)

[News Index](#)

The Rotherham NHS Foundation Trust

CASE STUDY:
Forward Commitment
Procurement
Ultra Efficient Lighting

European Commission Enterprise and Industry

Lead Market Initiative for Europe

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http://lowcarbon-healthcare.eu/cms/news

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11:23

Benefits of a European Network – Become a Stakeholder

The screenshot shows an Internet Explorer browser window with the address bar displaying `http://lowcarbon-healthcare.eu/cms/members/stakeholder.php`. The page header features the LCB-HEALTHCARE logo and the tagline "Procuring better building solutions". A navigation menu includes links for Home, About, News, Stakeholders, Partners Intranet, e-Newsletter, FAQs, and Contact Us. The main content area is titled "Stakeholder registration" and contains the following text: "To become a member of the LCB Network please complete the form below. If you wish to be removed from the database, please [contact us](#)."

The registration form consists of the following fields:

- * Title: Please Choose.. (dropdown menu)
- * First name: (text input)
- * Family name: (text input)
- Company / Organisation: (text input)
- Job title: (text input)
- * Address 1: (text input)
- Address 2: (text input)
- Address 3: (text input)
- * Town or city: (text input)
- County or province: (text input)

The browser's taskbar at the bottom shows the Windows Start button, several open applications (Internet Explorer, Microsoft Office), and the system tray with the time 11:25.

Benefits of a European Network – Become a Stakeholder

LCB healthcare- - Internet Explorer provided by Dell

http://lowcarbon-healthcare.eu/cms/members/stakeholder.php

Google Search


Norton Cards & Logins


LCB healthcare-

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	<input type="checkbox"/> International Organisation
Organisation type (if other):	<input type="text"/>
Function of organisation:	<input type="checkbox"/> Healthcare facilities – policy <input type="checkbox"/> Healthcare facilities – procurement <input type="checkbox"/> Healthcare facilities – planning/design <input type="checkbox"/> Healthcare facilities – construction <input type="checkbox"/> Healthcare facilities – building services <input type="checkbox"/> Healthcare facilities – management <input type="checkbox"/> Healthcare facilities – energy/environment <input type="checkbox"/> Innovation – policy <input type="checkbox"/> Innovation – programme management <input type="checkbox"/> Innovation – product development <input type="checkbox"/> Innovation – research and development <input type="checkbox"/> Innovation – low carbon technologies
Function or organisation (if other):	<input type="text"/>
Would you like to receive our newsletter:	Yes ▾
Would you be willing to take part in an exploratory stakeholder survey:	Yes ▾
Our contact details will be displayed on the website:	Yes ▾
	<input type="button" value="Submit"/>

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Done

Internet | Protected Mode: On 100%

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11:26

What About the Benefits From Collective Action?

- Mutual learning
- Rapid spread of best practice
- Economies of scale
- Critical mass to address common issues/barriers
- Global leadership
- Influence EU policy, regulations and standards
- Growth of European LCB Healthcare industries



Interested?

**FIND OUT MORE AND REGISTER AT
www.lowcarbon-healthcare.eu**

Closing comments

