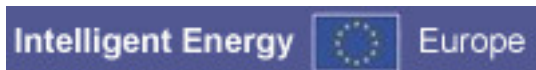


How can public authorities promote sustainable innovation through their procurement practices?

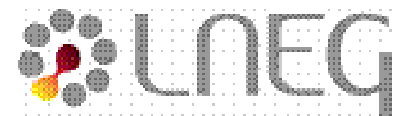
Paula Trindade, LNEG, Portugal

Smart procurement - Reducing costs & saving energy, 29 June 2011, Brussels

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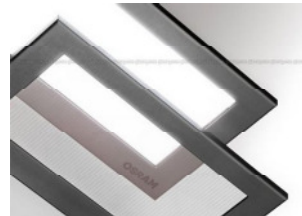
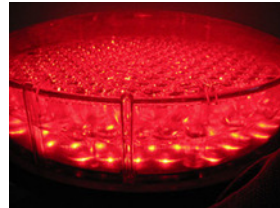


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Procurement
Campaign

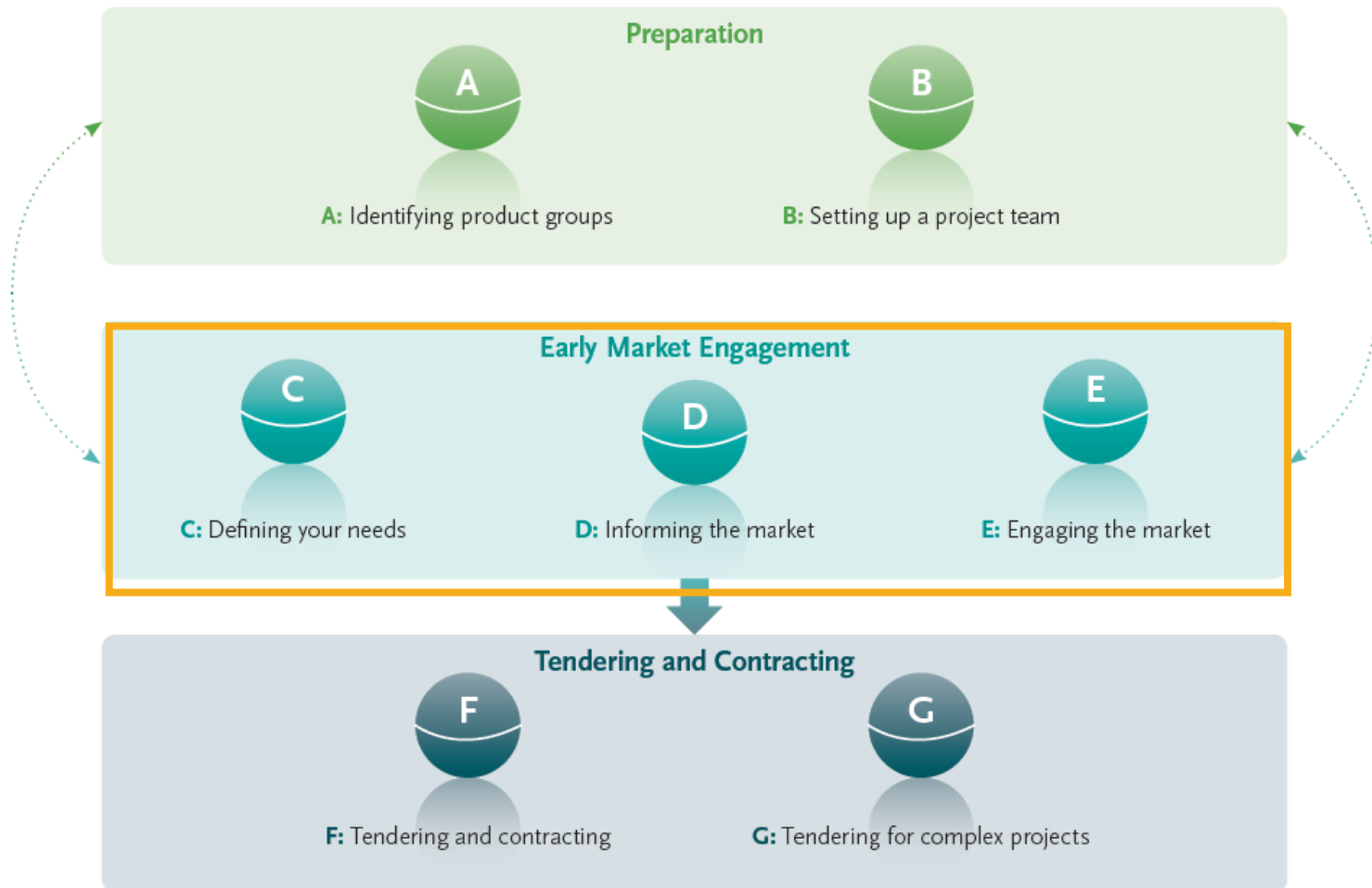


Smart-SPP Innovation through sustainable procurement

- ❑ Assisting public authorities in becoming “innovation-friendly” – i.e. achieving **the most innovative, energy efficient solutions within their procurement actions**
- ❑ **Early market engagement** - dialogue with suppliers and producers prior to the procurement process
- ❑ **Life cycle cost** perspective



Smart-SPP Methodology



Preparation

- ❑ **Product definition:**
- ❑ LED public lighting



- ❑ **Project team:** LNEG /Cascais - energy agency, lightning, public works, procurement departments
- ❑ Regular meetings from Oct 2009 until now!

Informing the market

Aim:

give the market sufficient warning to respond to future demands
And to **identify companies** for later market consultation actions.

Key Questions:

- Are the **relevant market actors** aware of our intentions?
- Have we raised sufficient interest for **effective market consultation**?

Success factors:

- Dedicate sufficient time and effort to this critical phase.
- Make sure you **communicate your functional requirements and performance targets clearly**.
- Give **companies sufficient time** to respond to your needs
- Reach **as many companies as possible** with your information, including **SMEs**, and those beyond your regular suppliers, e.g. through using SME networks, business associations and trade unions.

Engaging the market

Aim:

assess the potential solutions which may be available on the market to meet the defined requirements, and to learn about **future developments**.

Key Questions:

- Are there any **new, innovative technological solutions**, processes, or contractual arrangements for the particular requirements we have?
- How **near market-readiness** are these new developments?
- Is there information on the likely **cost** compared to current practice?
- Is there information on likely energy or, more generally, **CO2 savings** compared to current practice?
- Is there information on other **environmental impacts** (such as pollutant emissions, noise impacts, etc.)
- Cross-check: Are our **performance-based specifications understandable**? Are our **needs clear**?
- What indicators, norms, calculation methodologies, testing **procedures** and **standards** should be referred to when drawing up **technical tender documentation**?
- Are we able to go for a **standard commercial procedure** or will a **competitive dialogue approach** or **pre-commercial procurement** be required?

Engaging the market

Success factors:

- **Engage with the right companies** – those which can demonstrate they have a potential solution.
- **Engage with the right people** – try to ensure that technical people, as well as sales representatives participate in consultation
- Treat information from the market cautiously, and seek **additional third-party verified information**.
- Make sure you have **technical expertise** at your disposal.

Engaging the market: what we have done in Cascais



❑ Market research

❑ Suppliers seminar

❑ A **questionnaire** was sent to the suppliers, with draft criteria that was used as baseline for the discussion. The questionnaire also ask for data to be included in the **LCC-CO2 tool**.



❑ Eleven LED suppliers were invited to take part in **informal meetings** to discuss the draft criteria and if their products could meet that specifications.

❑ These one-to-one meetings were held from July to September 2010 in Cascais Municipality.

Developing LED criteria

ISSUE	CRITERIA	VERIFICATION
Luminaire features and performance		
LUMINOUS EFFICACY	≥ 90 lumen/watt	Product data sheet
LIFETIME	≥ 50.000 hours	Product data sheet
	Equipment must have an effective heat dissipation mechanism.	Product data sheet
COLOUR RENDERING INDEX	CRI ≥ 90	Product data sheet
COLOUR TEMPERATURE	Between 3500 K and 5000 K	Product data sheet stating available colour temperatures
INGRESS PROTECTION RATING (IP)	≥ IP65	Product data sheet
SHOCK RESISTANCE CLASS (IK)	≥ IK08	Product data sheet
POWER FACTOR	COS Φ ≥ 0,95	Product data sheet
TOXIC SUBSTANCES	Equipment must comply with Directive 2002/95/CE of the European Parliament and of the Council of 27 January 2003, regarding restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS)	Supplier statement of compliance with this slation
ECODESIGN	<input type="checkbox"/> Main criteria: Luminous efficacy – lumen/watt Lifetime Color quality - Coulor rendering index	plier statement of compliance with this eria
LUMINAIRE		plier register as producer of EEE duct labels and/or certifications

Developing LED criteria

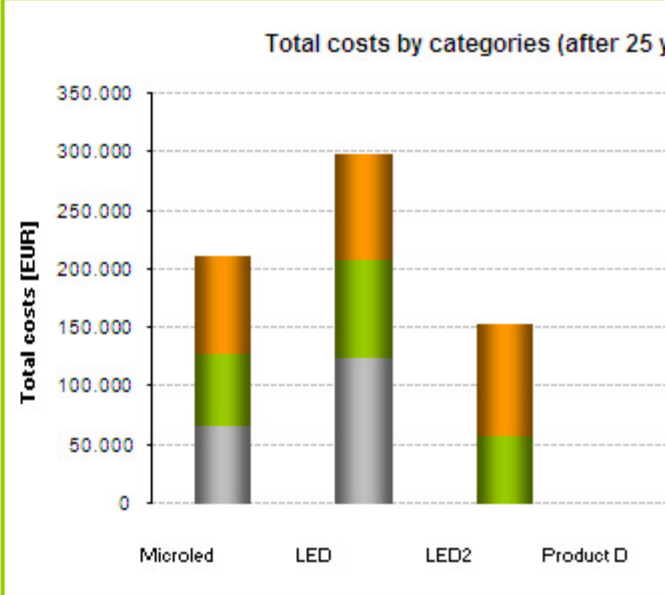
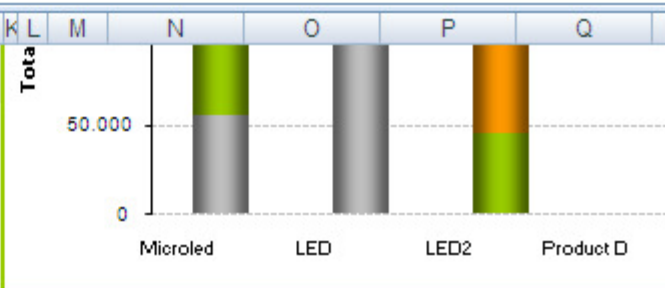
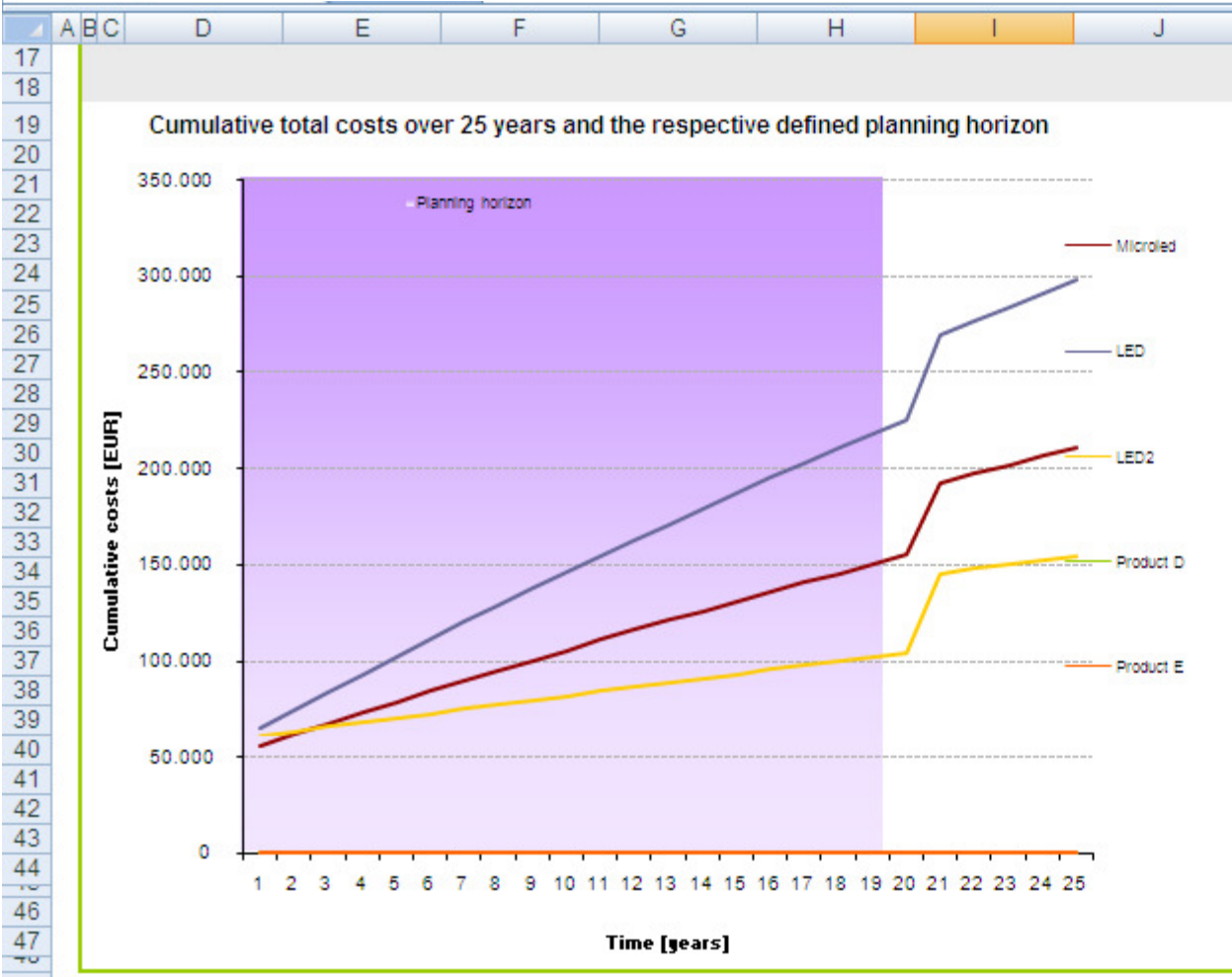


LUMINAIRE CERTIFICATION	Quality and/or environmental labels and/or certifications	Product labels and/or certifications
Global performance		
ILLUMINATION PERFORMANCE	<p>Installation design must ensure a minimum performance in accordance with the standard (DIN) EN 13201 - road lighting, considering road category.</p> <p>Note: Additional requirements should be defined by the contracting authority for parameters such as threshold increment (glare control), global uniformity, illuminance and others.</p>	Global installation luminotechnic study
INTELLIGENT ENERGY MANAGEMENT	Light intensity management/dimming system, energy management software and other features to be defined by the contracting authority.	Energy management system data sheets
CO2 EMISSIONS	Indirect emissions of CO ₂ (kg CO ₂ /year)	SMART-SPP LCC-CO ₂ tool
RETROFIT	Fixtures should enable retrofit	Product data sheet
Supplier Selection Criteria (previous qualification of suppliers)		
ENVIRONMENTAL MANAGEMENT	Implementation of acknowledged Environmental Management Systems such as EMAS ¹ , ISO 14001 standard or equivalent measures, for the supplier and all the intervenients <u>along the whole supply chain</u> .	<p>Certification of implementation of an Environmental Management System.</p> <p>Environmental Management Program identifying the main environmental aspects to be treated, goals and associated measures for the supplier and all the intervenients during the whole supply chain.</p>

¹ REGULATION (EC) No 1221/2009 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 25 November 2009 on the voluntary participation by organisations in a Community eco-management and audit scheme (EMAS), repealing Regulation (EC) No 761/2001 and Commission Decisions 2001/681/EC and 2006/193/EC.

Microsoft Excel ribbon showing the Home tab with options for Paste, Clipboard, Font (Arial, 10), Paragraph, Styles, Conditional Formatting, Format as Table, Cell Styles, Insert, Delete, Format, Cells, and Editing.

LCC costs



>>> BACK

Windows taskbar showing the Start button, taskbar icons for Case study, Microsoft PowerPoint, Microsoft Excel - Cas..., and LCC-CO2 testing_wo..., and the system tray with a 90% zoom level.

Early market engagement LED public lighting in Cascais, Portugal



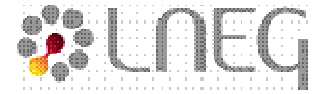
Lessons learned

- ❑ difficult to obtain reliable data from suppliers
- ❑ there is not enough time experience in the implementation of this technology
- ❑ To obtain more reliable data, a closer and deeper collaboration with suppliers is needed
- ❑ The knowledge of the team increased a lot!

After these meetings, criteria were updated...

And the design of the procurement procedure started!

Early market engagement
LED public lighting in Cascais, Portugal



Additional results from production side:

LED companies interest in communicating their products performance (labeling, self-declarations)

Thank you!!

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