

LUCIA

Economic governance and procurement for the transfer of smart urban lighting investments?

AWARENESS AMONG THE 5 PILOT CITIES IN LUCIA:

GOOD

- ✓ Dimming
- ✓ Reparability
- ✓ Labelling
- ✓ Ingress protection rating (liquid and solid)
- ✓ Expected lifetime

- ✓ Applications and technology for street lighting

LOW

- Supporting technologies Innovation?
- Reduction of maintenance costs LCA / procurement?
- Energy consumption indicators Strategy?

- Applications and technologies for recreational lighting.

Korötko, T., Rosin, Argo, Varjas, T., & Ahmadiyahangar, R. (2020, June). Awareness of BSR Municipalities about Sustainable Urban Lighting and Green Public Procurements. In *2020 IEEE International Conference on Environment and Electrical Engineering and 2020 IEEE Industrial and Commercial Power Systems Europe (EEEIC/I&CPS Europe)* (pp. 1-6). IEEE.

MAIN OBSTACLES (AND OPTIONS)

1. Innovations in business models and governance
 - 1. Enabling outside innovations
2. Life-cycle assessment
 - Project thinking
3. Strategy
 - The challenge of cooperation



*Best practices?
(procurement &
economic
governance)*

BUSINESS MODELS AND GOVERNANCE

1. Considering innovation only in terms of “outside” services (e.g. building hardware platforms for proposed private services).
 - PTP: a public agency places an order for a product or system that does not exist at the time (active innovation policy).

Also thinking about technology innovations for “enabling” roles from within the municipality.

- New modes of governance (e.g. Public Technology Procurement for Innovation)
- “Remunicipalization”
- Citizen labs (experimenting)

- Edquist, C., & Zabala-Iturriagagoitia, J. M. (2012). Public Procurement for Innovation as mission-oriented innovation policy. *Research policy*, 41(10), 1757-1769.
- Mariana Mazzucato (2011). *The entrepreneurial state: Debunking Public vs. Private Sector Myths*

LIFE-CYCLE ASSESSMENT & PROCUREMENT

2. Obstacle of “projectification”

- the tyranny of small decisions (customer/PM)
- the tyranny of project application/finance

Practicing also

“sustainability thinking”
(beyond “project thinking”:
considering complexity and
cross-functionality (how
smart lighting relates to all
other municipal functions).

- synergies and trade-offs
- Maybe cannot quantify, but can choose right direction qualitatively.

- Ballesteros-Sánchez, L., Ortiz-Marcos, I. and Rodríguez-Rivero, R. (2019), "The project managers' challenges in a projectification environment", *International Journal of Managing Projects in Business*.
- Bliss, P., & McCullough, J. (1980). The Tyranny of Small Decisions, Temporal Conflict, and the Necessity For Politicization of the Market Place. *Business & Society*, 19(2), 48-55.
- Hrelja, R. (2011). The tyranny of small decisions. *Unsustainable cities and local day-to-day transport planning*. *Planning Theory & Practice*, 12(4), 511-524.
- Kahn, A. E. (1966). The tyranny of small decisions: market failures, imperfections, and the limits of economics. *Kyklos*, 19(1), 23-47.
- Munck af Rosenschöld, J., & Wolf, S. A. (2017). Toward projectified environmental governance?. *Environment and Planning A: Economy and Space*, 49(2)

STRATEGY

3. Lack of cooperation

Need to cooperate across silos in early phase

-> need to agree on transaction costs, in a context of high uncertainty about who benefits from the investments

- Polzin, F., von Flotow, P., & Nolden, C. (2016). Modes of governance for municipal energy efficiency services—The case of LED street lighting in Germany. *Journal of cleaner production*, 139, 133-145.

Backcasting method:

1. Start with goals

(e.g. energy reduction, user satisfaction) and benefits (savings, user satisfaction, institutional reform)

2. Work backwards in time defining until present day:

- Different possible paths
- Who pays for what
- Who benefits from what
- Include an assessment of risk and political acceptability

The road to transferable

LUCIA best practices?

- ✓ A best practice is understood as a policy or practice that is easily transferable between contexts because of its inherent qualities.
- Green public procurement
 - LUCIA WP3 not before the pilots
 - Pilots' lessons + WP3 = transferable smart lighting procurement model?
- Economic governance
 - Projectification could mean more difficulty to replicate / economic savings view is limited in scope.
 - Smart lighting as good practice of new institutional economics for a (digital) "fair energy transition".
 - Next Interreg project?



FCG

Working for well-being