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**Let's Construct Europe's Future
With Innovative Buildings and Infrastructures
*Construction and Societal Challenges***

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POCOPSC: Procuring and Operating Complex Product Systems in Construction

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Content of the presentation

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7. Conclusion

Partners



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- 1 Jan 2010 – 1 Dec 2012



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Objectives

- Examination of:
 - The increasing move away from product delivery towards the delivery of client's needs through service provision and the development of integrated solutions in construction
- In order to:
 - Identify control/coordination mechanisms between integrated solution providers and users;
 - Examine whether the development of integrated solutions in construction improves the quality of the process and stimulates innovation and life cycle costing;
 - Inform policymakers and industry about, which new policies and public (de-) regulations may be needed to enhance procurement methods and strategies for sustainable construction.



Analytical frame

- Construction, a low-tech and backward-looking sector?
 - Traditional innovation models tend to reinforce this view
 - Need for new analytical approaches
- Complex Product Systems (CoPS):
 - high cost, engineering-intensive products, systems, networks and constructs,
 - ...delivered in a temporary coalition of organisations,
 - ...comprising a series of phases from pre-production bidding, conceptual and detailed design to maintenance, servicing and sometimes de-commissioning.
- Focus on:
 - The construction project (suppliers, contractors, government regulatory bodies, etc.)
 - The operational system (owners, users, regulators, actors responsible for operation and service delivery through a system to end-users).



Cases

Country	
France	3 PPP projects : <ul style="list-style-type: none"> • A large scale renovation project; • 2 police stations (One under a traditional procurement process scheme); • A low energy consumption high school.
Denmark	ESCO (Energy Service Company) <ul style="list-style-type: none"> • Industry structure, adoption and use Intelligent buildings Low-energy houses
Sweden	Public multi-activity arena: <ul style="list-style-type: none"> • The impact of industrial structure on ICT uptake and use • Partnering and BIM



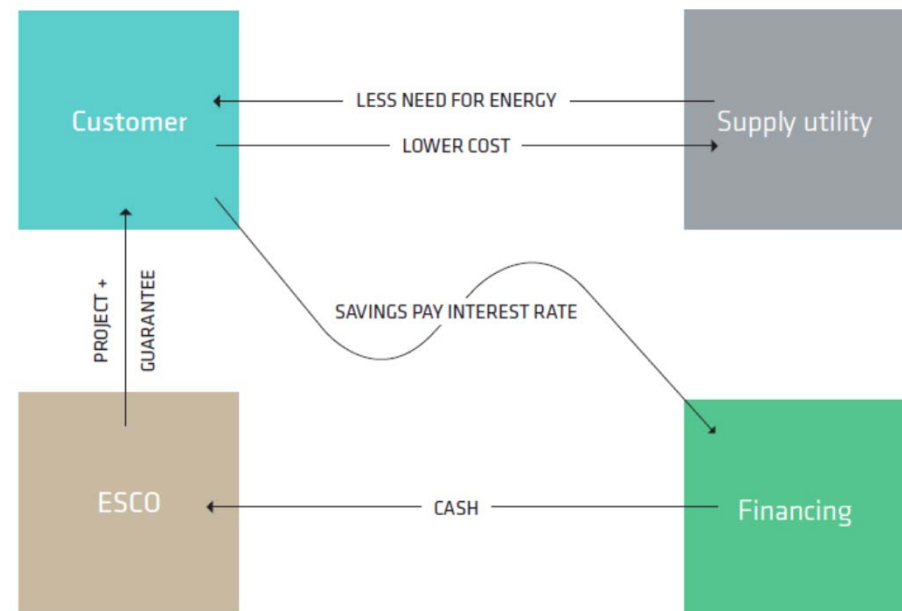
Issues

- Distinguishing construction from other business activities;
- Similarities and differences of construction business systems in Denmark, France and Sweden;
- Contractual versus relational governance mechanisms;
- Performance measurement, monitoring and incentives;
- Integration of environmental constraints;
- Service delivery.

Close-up on a case

- Three levels of analysis in relation to ESCOs:
 - Macro: Transition dynamics
 - Meso: Governing complex performance
 - Micro: Changing roles, changing practices

FORA, 2010: 21:





ESCO: Transition dynamics

- A macro-level perspective:
 - The interplay between national and supra-national regulation
 - Focus on dynamics of adaption and circulation of ESCOs in Europe
 - Emphasis on understanding how a market for energy services is being established and institutionalised.

ESCO: Governing complex performance

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- A meso-level perspective:
 - Focus on the procurement and operation of a specific ESCO project (a public renovation project)
 - Governance mechanisms and performance measurement
 - The dynamic interplay between mechanisms of contractual respectively relational governance
 - Performance (measurement) is crucial in this respect as this constitutes a strong source of legitimacy

ESCO: Changing roles and practices

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- A micro-perspective:
 - How, and if, existing roles, responsibilities and capabilities are destabilised and transformed as a result of the change from product delivery towards service delivery
 - How is the traditional relationship between buyer and supplier reconfigured by ESCO?
 - How is collaboration influenced, structured, concretised or mediated by means of ES-technology?



Target groups and results

- Clients, owners and managers of public facilities:
 - A more reflexive and informed ground for procuring CoPS
- Suppliers of CoPS:
 - Achieve first-mover effects as to how to comply with new procurement regulations
- National policymakers and industry representatives:
 - Knowledge on the impact of new policies and regulations
- European Commission:
 - Attain a research-based input to support the development of strategies to facilitate the implementation of new supra-national procurement strategies.

Thank you for your attention

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