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# The Role of Public-Private Partnerships in Sustainability Transformations of Waste Management Systems

Experiences from Denmark and England

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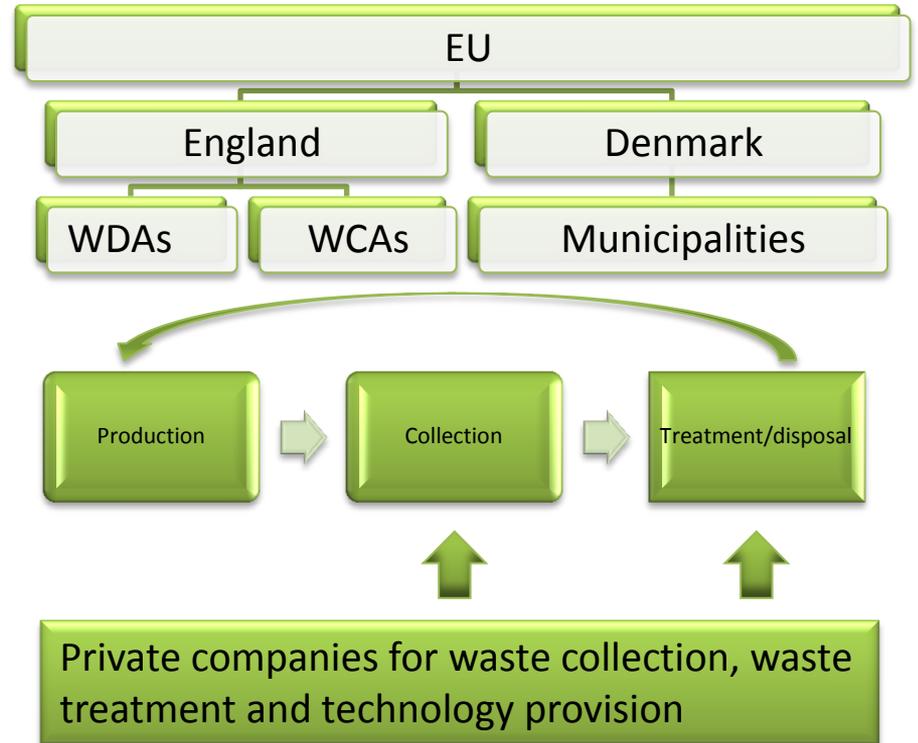
# The aim of the paper

- This paper investigates PPPs as policy instruments to deliver sustainability transformation
- Sustainability transformation: processes *‘through which established socio-technical systems shift to more sustainable modes of production and consumption’*
- PPPs: The idea of public and private organizations working together to achieve their own objectives, while outperforming the gains of working alone
  - Competitive advantage: More efficient, effective and innovative solutions by involving private actors
  - Collaborative advantage: Combine resources and knowledge to solve complex societal problems; such as sustainability, climate change, poverty reduction
- PPPs have been accused of not being ‘partnerships’, but rather long-term hierarchical relationships, mixed evidence of coproduction and innovation
- An ‘extreme’ challenge for PPPs (compared to a constructing a bridge or a public school)
- Two cases of sustainability transformation in waste management: England + Denmark

**RQ: What role do PPPs play in the sustainability transformations of Danish and English waste management systems?**

# Waste Management – A changing sector

- From waste as a 'residual' to waste as a 'resource'
- EU regulation: divert bio-degradable waste going to landfill, the waste hierarchy, target: 50% recycling in 2020
- Increased complexity: multi-level regulated, networked infrastructure, technology development, private sector inclusion, professionalization, market internationalization
- Transformation challenges: Sunk costs, vested interest, system interdependencies, less control



# PPPs as policy instruments

- PPPs – an ambiguous and contested concept
- PPPs has been used for various purposes (infrastructure, services, policy coordination, technology development) and comes in a variety of organizational forms (tight/loose organizational and financial relationship; various normative agendas)
- PPPs are here defined as ‘institutionalized cooperative relationships between one or more public and private organizations to fulfill a policy function’ (Rosenau 2000, Hodge & Greve 2007)
- PPPs might be more or less based on ‘partnership’ relationships (long-term, trust-based, working towards a common purpose, sharing resources, costs and benefits, transformational approach)
- ... and more or less a prolonging of the NPM regime, improved contracting out (better risk sharing, whole-of-life planning)
- Various potential for sustainability transformation?

# Methods

- Research design: Explorative, comparative case study to provide context and a clearer picture of the distinctive cases
- Case selection: Two typical cases of sustainability change processes and high involvement of private actors, but some variance in PPP use
- Data collection: Identify and investigate examples - 6 exploratory expert interviews and 35 in-depth, semi-structured qualitative interviews (single/group) triangulated with data from websites, contracts, policy papers, reports etc. and participation in meetings and conferences (3 months research stay in Manchester)
- Data analysis: Interviews recorded, transcribed, divided in PPP types and coded in main themes (relationship, sustainability change etc)

# The two cases

## England

- Waste production: 228 mt yearly
- 22,9 mt household waste
- 43% recycled, 36% landfilled and 19% incinerated
- Laggard, but now accelerating: Tradition for landfill, late recycling
- Approx. 50% of collection contracted out (politized), almost all treatment contracted out (pragmatic)
- Large cutdowns in local authorities, WDA-WCA split, joint working
- Highly internationalized market, 5-6 large companies, acquisitions of smaller companies

## Denmark

- Waste production: 9 mt yearly
- 2,5 mt household waste
- 38% (42%) recycled, 4% landfilled and 54% incinerated
- Frontrunner, but now lacking behind: Tradition for incineration, early recycling
- At least 80% of collection contracted out (pragmatic), most treatment publicly owned, recycling private (politized)
- Strong local authorities, strong tradition for joint working
- Partly internationalised market, 4-5 dominating companies, acquisitions of smaller companies

	England	Denmark	Role in sustainability transformation	Partnership
Infrastructure PPPs	X	?	Deliver new treatment facilities, coordinate transformation processes	Development towards sharing risk and incentives. 'Necessary' in long-term projects?
Service PPPs	X	X	Implement and test new collection systems and vehicles, gradual efficiencies	Moving away from adversarial relationships and increase flexibility
Policy PPPs	?	X	Develop new policies in line with practical knowledge and technological developments	Coordinating between policy makers and practitioners
Technology PPPs	?	X	Develop and mature new technological solutions	Combining resources, knowledge and competencies

# Examples: Infrastructure PPPs

## East London Waste Authority

- 25 year contract from 2002
- First integrated waste disposal contract in England
- First to embark on Mechanical-Biological Treatment technology
- Challenges: too much risk transfer, no recycling incentives for private company or boroughs
- Understanding of each others needs, but tough renegotiation
- Recommended government solution

## Vejle Municipality

- First waste infrastructure PPP in Denmark (potentially)
- Inspiration from PFIs and Danish service PPPs relationships
- Innovation partnership on organizational form
- Joint venture for a resource center and administrative tasks
- The idea is to get waste from other municipalities and businesses
- Stalled by legislative challenges

# Conclusions

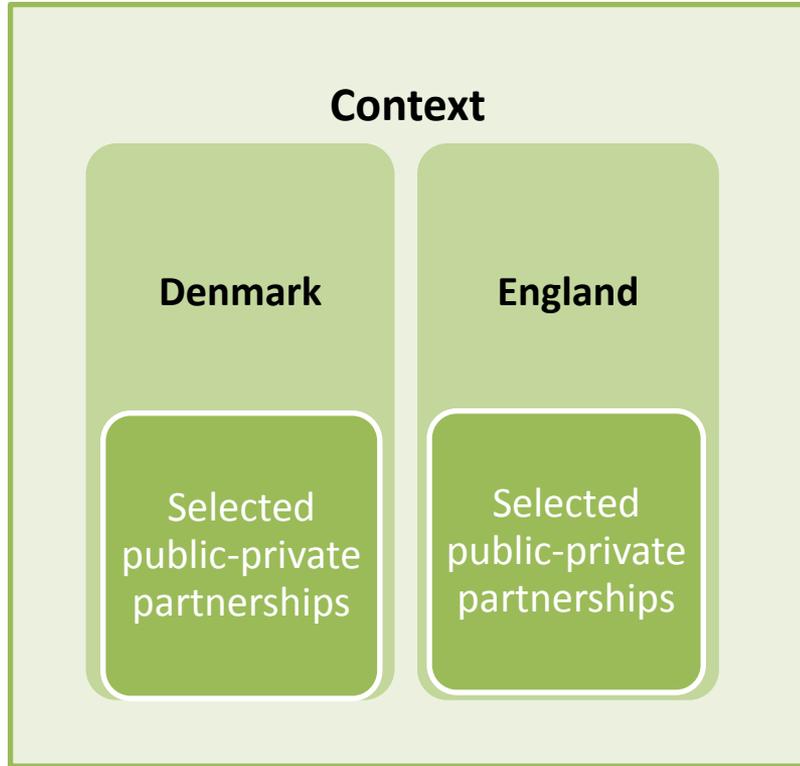
PPPs do play a quite prominent role in the sustainability transformations of Danish and English waste management systems

- But they are also a political contested policy instruments
- Challenge of aligning public and private interests and providing flexibility

No evidence that PPPs should bring more sustainable solutions than in-house

- They are chosen for more pragmatic reasons: private investment, access to business waste, improving relationships
- But in some cases partnership/coordination is necessary

# The embedded, comparative case study



Article 1: The Public Management of Waste – Towards a partnering approach?



Article 2: The Role of Public-Private Partnerships in Sustainability Transformations – Experiences from Denmark and England



Article 3: The Drivers of Innovation in Public-Private Partnerships



Article 4: Managing innovation in public-private partnerships