



VRIJE
UNIVERSITEIT
BRUSSEL

DATA PROTECTION IN SMART CITIES

INCENTIVE STRUCTURING IN PROCUREMENT PROCESSES

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CONTEXT

RELEVANCE

- (Local) public administrations face increasingly **'wicked' challenges**
- **Smart city** transition to maximize **public value creation** (Moore, 1995)
 - Efficiency, effectiveness and data protection (Edwards, 2016)
- SCSs often require **public-private collaboration** (Myeong et al., 2018; Smart City Institute, 2018)
 - Lack of (financial) resources
 - Complementarity of expertise
- Formal **public procurement** procedures

CONTEXT

SCOPE

- Smart city service (SCS)
(Neirotti et al., 2014; Walravens & Ballon, 2013)
 - **Granular** smart city approach
 - Characteristics:
 - **Public interest** dimension
 - **Physical** presence component
 - **Personal data** collection and use
 - Multiple **stakeholders**

The screenshot shows the website for Xelles Elsene. At the top, there is a search bar with the text "Ik zoek..." and an "OK" button. Below the search bar are navigation tabs: "INWONERS", "CULTUUR & VRIJE TIJD", "GEMEENTE", and "IK BEN...". The "GEMEENTE" tab is selected, and the sub-tab "E-Loket - Bevolking en Burgerlijke stand" is active. On the left, there is a list of administrative steps: "Administratieve stappen" (highlighted in green), "Online loket", "In Elsene komen wonen", "Identiteit - Nationaliteit", "Geboorte", "Wettelijk samenwonen", "Huwelijk", "Echtscheiding", "Overlijden", "Bouwen / Renoveren", "Belastingen en bijdragen", "Elsene verlaten", and "Brexit". On the right, there is a section titled "Documenten die meteen te downloaden zijn" with a sub-header "Deze documenten zijn digitaal getekend en zijn enkel geldig in elektronisch formaat." Below this, there is a list of documents, each with a small icon of a document and a red circle with "Elsene" inside. A large red X is overlaid on the document list, obscuring the details of the documents.

Source: Elsene (2022)

DATA PROTECTION & COMPETITION IN PUBLIC PROCUREMENT

A STUDY OF BIDDERS' DATA PROTECTION RELATED EATCs

- **Data protection** is a **collaborative effort**
 - Data protection by design and by default, DPIAs, GDPR-module in tender
- Relevance of **ex-ante transaction costs (EATCs)** related to data protection
- **Explorative econometric study** of bidders' **EATCs related to data protection**
 - Special focus on Benelux, France, and Germany
 - 72 individual SCS tender bids up to 2021
- Focus on **determinants** and **competitive relevance**

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SAMPLE OF TENDERS

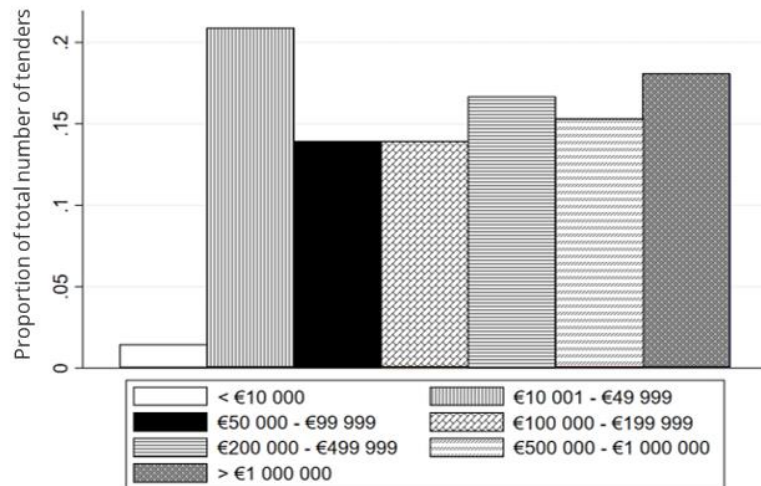


Figure 2. Overview SCS tender size (n=72). Source: own creation using STATA.

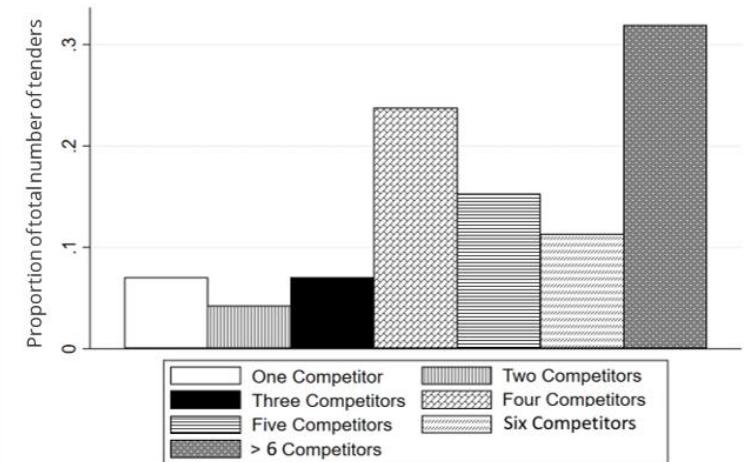
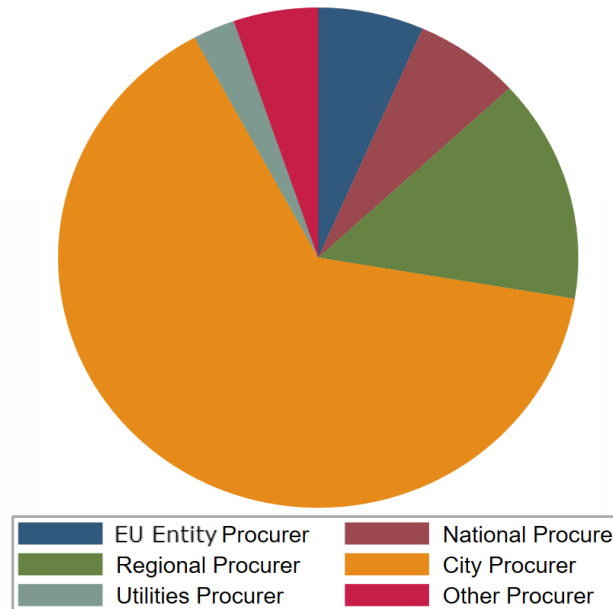







Figure 4. Overview SCS tender competition level (n=72). Source: own creation using STATA.

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FINDINGS

- **Determinants** of data protection related EATCs
 -  **Strength of relationship** with tendering authority
 -  **Outsourcing level** of data protection efforts
 -  **Complexity** of SCS project (cfr. Risk-based approach)
 -  **Value** of the tender
 -  Number of **competitors**
- **Competitive relevance** data protection related EATCs
 - **Median is 5 %** of total tender value (n = 49)
 - Lead to **positive spill-overs** (internal capabilities and reputation, esp. competitive dialogue)
 - **BUT No effect** on tender win probability

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IMPLICATIONS AND TAKEAWAYS

- **Problem**

- Data protection **EATCs** are **not impacted by tougher competition AND** the level of data protection EATCs has **no effect on tender win probability**

- **Likely explanation**

- **Bidders perceive** that **tender evaluations** focus (solely) on **core functionality** and **price**
 - **Late or non-involvement DPO** and/ or **check-box GDPR compliance**

- **Alleviation via**

- Public sector buyers' **signaling** that data protection is taken seriously
 - **Early DPO involvement** and **substantive broadening** of **evaluation criteria**
 - Use of **procurement procedures promoting inter-organizational** data protection learning

➤ Only then can **competition** be a **lever for** increasing **data protection** levels

FURTHER READING

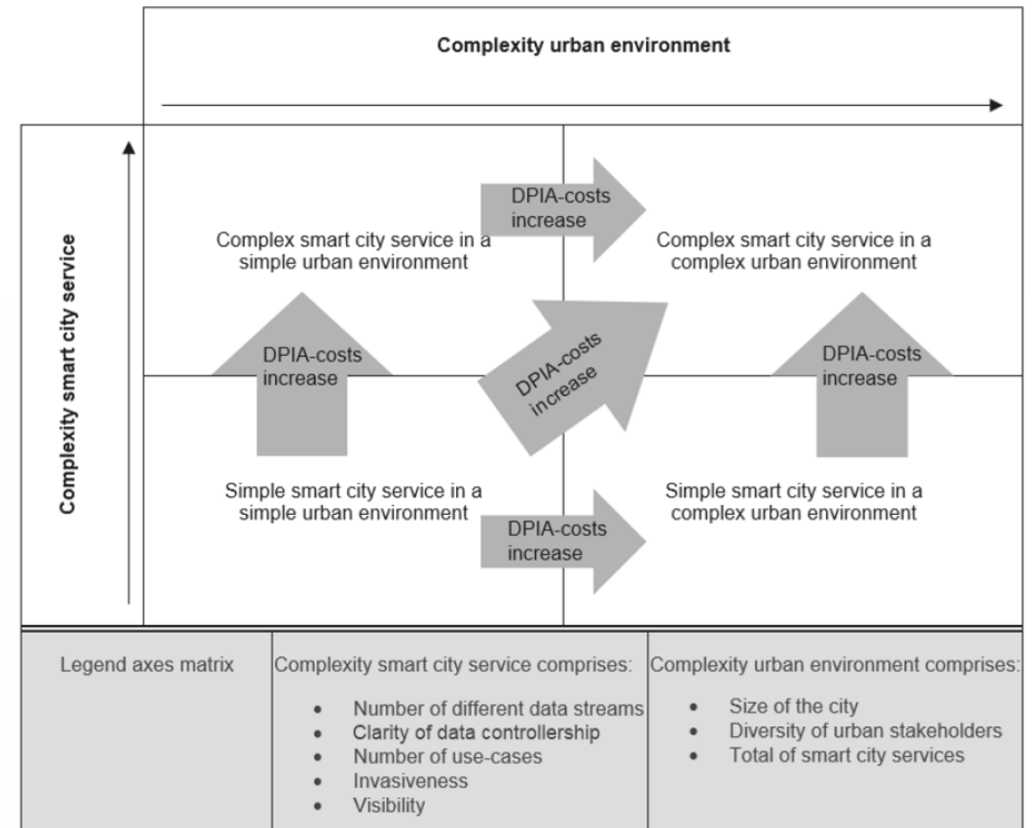
SPECTRE PROJECT

Smart city Privacy: Enhancing Collaborative Transparency in the Regulatory Ecosystem (SPECTRE)

• Toolbox

- Law
- Communication sciences
- Business economics

<https://spectreproject.be/>



THANK YOU FOR YOUR ATTENTION

QUESTIONS?

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