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A High-Level Framework for Business and Government **Requirements Analysis of Detection Technology for Postal** and Parcel eCommerce Flows

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Abstract

In this paper we present a high-level framework for business and government requirements analysis of detection technology, taking emerging policy developments related to circular economy monitoring into account. The framework was developed in the context of the PARSEC research project on postal and parcel eCommerce flows.

Keywords

eCommerce, eGovernment, detection technology, digital infrastructures, framework

1. Introduction

Current eGovernment research has paid attention to how governments can benefit from using business data [1] and has pointed out the potential of detection technologies for government for monitoring cross-border flows [2]. However, so far scanning and detection technology has received limited attention in the eGovernment literature. In this paper, we present a high-level framework for business and government requirements analysis of detection technology for postal and parcel eCommerce Flows.

2. Method

This research is part of the PARSEC project. The framework was constructed based on earlier research; research on new regulatory developments and project workshops.

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3. The framework

The framework identifies five high-level perspectives that may be considered when defining specific requirements and trade-offs for detection technology in a business-government context: (1) Public concerns and requirements on data and technology; (2) Emerging policies that may lead to new public concerns; (3) Public/ private partnership; (4) User point of view; (5) Technology in isolation or as part of the larger ecosystem, also in view of emerging technologies.

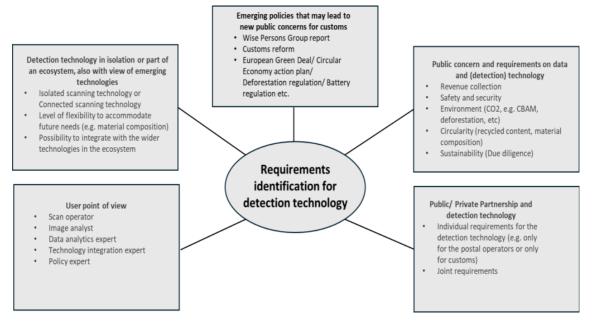


Figure 1: High-level framework for business and government requirements analysis of detection technology

4. Conclusions

This paper is a contribution to stimulate scientific discussion in the eGovernment research community on the topic of detection technology used by businesses and how it can be used in public-private collaborations.

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References

- [1] Rukanova, B., van Engelenburg, S., Ubacht, J., Tan, Y. H., Geurts, M., Sies, M., ... & van Dijk, D. (2023). Public value creation through voluntary business to government information sharing enabled by digital infrastructure innovations: a framework for analysis. Government Information Quarterly, 40(2), 101786.
- [2] Heijmann, F., Tan, Y. H., Rukanova, B., & Veenstra, A. (2020). The changing role of customs: Customs aligning with supply chain and information management. World Customs Journal, 14(2), 131-142.