

## **VIRTUAL ECOSYSTEMS FOR SMART SUSTAINABLE CITY DISTRICTS AN EXPERIENCE REPORT**

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### **ABSTRACT**

This experience report investigates architectural challenges to establishing and operating a digital ecosystem for a sustainable smart city district in southern Sweden. We conducted a series of workshops and in-depth interviews with actors in the project to understand the challenges they face when establishing a platform for a digital ecosystem.

In particular, we focused on architecture barriers that hinder or make it challenging to achieve the desired degree of openness that promotes open innovation in the ecosystem. The interviews identify actors' perspectives on the platform architecture, architecture barriers that we exemplify, and the barriers' effects on ecosystem governance. We describe the complex governance challenge for platform architectures and outline a research agenda that addresses some governance challenges.

**Keywords:** Ecosystem, Barriers, Platform, Smart City, Architecture governance