

## D4.1 BEST PRACTICES FOR AEOLIX COLLABORATIVE DATA SHARING

### Lead Beneficiary: Planung Transport Verkehr AG (PTV)

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Full deliverable available here: <http://aeolix.eu/deliverables/>

AEOLIX deliverable 4.1 presents collected good practices for collaborative data sharing. This deliverable addresses the structural problems and barriers of data exchange and sharing, and develops solutions to overcome these problems. These good practices have been collected from the AEOLIX Living Labs (LLs) as well as by desk research from industry collaborations and Public-Private Partnerships (PPPs). AEOLIX will address the technological challenges to achieve the goal of a central logistics ecosystem which is connected to existing systems and established platforms. At the same time AEOLIX needs to address governance and policy aspects to generate a trusted, interconnected space for services and data sharing that is accepted by the stakeholders.

The AEOLIX governance model addresses the different levels of data exchange, reaching from strategic over tactical to operational issues; key stakeholders in industry and administrations are involved. Deliverable 4.1 addresses the structural problems and barriers of data exchange and sharing, identifying a first collection of governance needs for AEOLIX, and presents solutions to overcome these problems.

An overview of the ongoing work of work package (WP) 4 'Collaborative Data Exchange Certification Framework', is provided, including the overall objectives, timeline, deliverables, and the update plan. A spectrum of potential collaborative data sharing and interconnecting solutions are presented as the possible basis for a common AEOLIX architecture for collaborative data exchange.

This study explores why governance is required for AEOLIX data sharing and collaboration. The main benefits and challenges for data sharing have been identified, key identified challenges include: data ownership, lack of trust, and data protection. Following this review of needs to be addressed, the five governance levels of AEOLIX, and functions to be performed at each level have been defined.

Deeper insights regarding data sharing and governance developed through this study, and an overview of benefits and challenges of data sharing are detailed in the full deliverable. Identified data exchange mechanisms and good practices for data and structure include:

- Electronic data interchange;
- extensible Markup Language (XML);
- interface description languages;
- deployment concepts; and
- service models for cloud computing.

The following examples are presented as good practices for data and structure:

- GS1 GDSN;



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- DATEX II;
- UN/EDIFACT;
- UN/LOCODE;
- Role-based access control (RBAC);
- WCO data model;
- eFreight; and
- the Common Framework and Common Framework Reference Model.

The exploration of these issues as they pertain to the eleven AEOLIX LLs is presented. The governance approach is based on the LL experiences and requirements. The main issues highlighted are as follows:

- how to identify key barriers (connectivity, information exchange, content creation);
- how to develop the value creators of the platform;
- how to ensure data quality and reliability at different levels; and
- what are the governance needs and recommendations for closed communities.

Methodology identification and mapping of required governance levels for LLs are presented and the governance needs and recommendations by AEOLIX LLs are described. Within the AEOLIX LLs the numerous instances where the data governance modes need to be applied are defined. The identification methodology and the mapping of required governance levels for the AEOLIX LLs is presented.

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