D5.7 AEOLIX CONNECTIVITY GAP ANALYSIS

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

This Report describes the Connectivity Gap Analyses performed by the Living Labs under AEOLIX. As proposed and confirmed under the Grant Agreement, the AEOLIX concept will be verified by a number of strong user communities – the Living Labs - across Europe, who have identified concrete, urgent operational challenges that the innovative approach enabled by AEOLIX seeks to address under this project.

This verification of AEOLIX will occur through the conduct of 11 Living Lab trials or test cases, where the operational challenge is identified, the data gap and sources pinpointed per actor in the chain or unit of analysis, and the required data made available via the AEOLIX architecture. A 12th Living Lab is foreseen and is under preparation after the amendment approval.

This Deliverable D5.6 focusses on the information gaps that each actor in the living labs may be suffering, resulting in lost efficiency and increased costs and environmental impact. The Deliverable specifies the particular business "Use Cases" and related information sharing scenarios identified to address these.

We have seen from the analyses provided that the information gaps vary in nature, depending also on the types of players operating under each Living Lab and the extent of the supply chain. For example (see Figure 1):
-        As foreseen, at the Port of Hamburg the LL is focusing on process control, and is seeking to fill the gaps to the visibility of container availability from the container terminal
-        As foreseen, at production sites and warehouses managed by COOP and its suppliers, the teams are focussing on end-to-end visibility of shipment load size, availability and ETA; this is being supported with a shared AEOLIX dashboard view so that terminals, LSP's and warehouse managers can adjust their schedules and reduce waiting time
-        As foreseen, at the network level, parties like Mondelez and the Spanish Automotive cluster are looking to optimize load factors with advance insight into production planning and their adjustments, and enabling co-loading of LTL shipments where feasible.

For each of the critical nodes the Living Labs have selected and developed formal Use Cases that specify the problem being solved and the flow of information between the parties. The Use Cases thus form the basis to identify the sources of data to be used to address the information gap experienced by the actors.

The pattern is repeated as LL's report, that operators, have to log into specific and disparate systems to see the status and location of shipments and trucks, read the emails with any updates, and then act on this information when the facts by then are already changed. Trucks will already be on the way as scheduled, and arriving at the terminal, have to wait.

These are the gaps being addressed by the AEOLIX platform and being validated by each of the LL through the Use Cases being developed.

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The main coordinating mechanism is the Living Lab Methodology (See Figure 2), within which the current Report represents the second analytical and preparatory phase. This ensures that each LL will – regardless of the specific context and content – work along the same dimensions and phases. The WP5 Tasks will be the same for each LL case to be examined, and the Deliverable's Tasks will consolidate the results across the LLs as we have done in this document.

Each LL will operate by the standardized methodology, and will report accordingly for each Task and Sub-Task. The methodology – as now being implemented - identifies the partners to join in the collaborative environment, the connectivity gap, the data needs as informed by the business needs within each LL situation, and will then implement the AEOLIX architecture in conjunction with the WP3 team.

As foreseen in the Proposal and in the Grant Agreement, and further elaborated in the Living Lab Implementation plan D5.1, there are 11 LLs identified, each with a Consortium Member as Lead, and supported by other Consortium Members; as needed further Associate Members of the Consortium are involved.

The AEOLIX Living Lab Connectivity Gap Analysis will provide a view on where and how in each Living Lab the partners seek to improve their logistics performance. Under the information gap analysis that has been performed, the partners have analysed the players, the transactions being conducted, the information being exchanged in the AS IS situation, and have redesigned the same scenarios under an AEOLIX TO BE situation.

The Living Labs will continue to evolve as to where the most impact can be made with the visibility on the supply chain being pursued. As parties move closer to actual implementation, the technical options and requirements will continue to be refined, based on actual availability of required information, and the manner in which this can be mobilized to solve the information gap at hand. Thus, each Living Lab will continue to evolve and subsequent Deliverables will highlight such updates as appropriate.