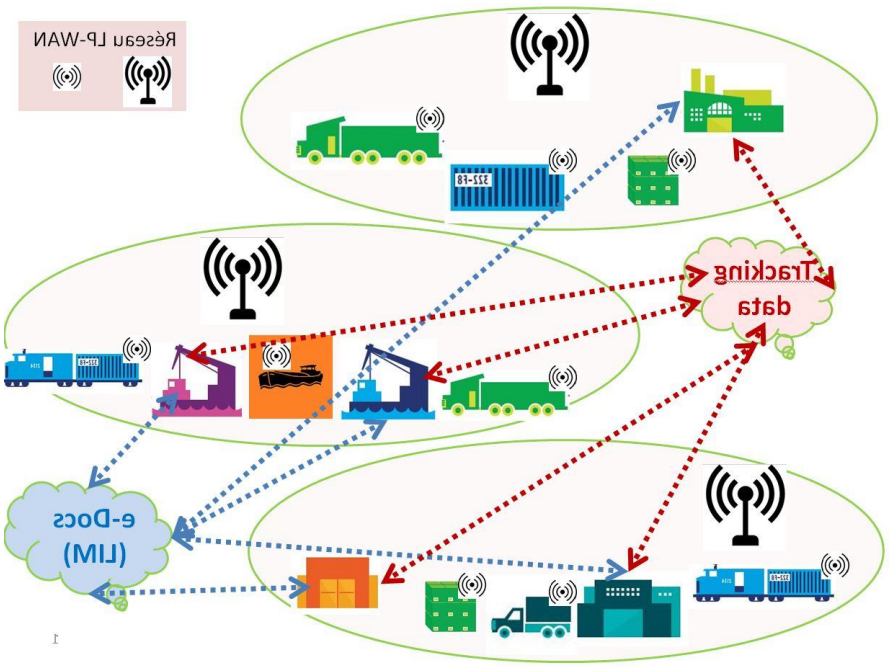
CLOUD ORIENTED INLAND WATERWAY SHIPMENT MANAGEMENT SYSTEM



Challenge: What challenge or problem are you addressing?

- Need to facilitate a modal transfer from road transport to waterway (containers, bulk, pallets, big-bags, ...) between NWE inland ports and connectable to both sea ports and others transport modes (trucks, train, ...). e.g. +/- 200 Mio.T in 2015 on Rhine only.
- Need to synchronize data exchange between stakeholders: these data are very heterogeneous for now (phone, mail, e-mail, fax,...). A fully automatic, holistic approach is required (no data re-encoding is a must).
- Existing embryonic, none integrated solutions are too expensive for small inland ports structures, too complicated to manage by non specialised personnel only available in this SME oriented structures. Need of a cloud-based operated solution.
- No solution integrating both open traceability and EDI for these actors is available.
- No solution exploits the new emerging LPWA (Low power Wide Area) M2M networks for traceability and asset geo-localisation.

Objective of the project: what your project aims to achieve/change

- Develop a new holistic, cloud based platform (SAAS model) for synchronisation of data exchange (planning, business documents, tracking data) between partners, with tools easily accessible for SME inland port operators:
  - Automatic exchange of standardized data, according to GS1 Logistics Interoperability Model,
  - Simple and secure exchange, where every partner is master of his own data, and shares these data only with chosen partners,
  - Real time follow-up of operations, better workload forecast and resources allocation.
- Interoperable tools for data capture data: "intelligent" cameras on loading docks able to read container painted code and abnormal shipment handling, mass measurement crane grapples, long distance RFID readers, specific multi-sensors active tags included in shipments and connected to national LPWA networks.
- Holistic, hierarchical geo-localisation and traceability of shipment in the barge using the emerging LPWA sensors network deployed by most NWE telecom operators.

Need for transnational cooperation:

- Cooperation between all the actors of the different steps of international logistic flow (sea ports, inlands ports, waterway carriers, customs, ...) is necessary to build an effective solution.
- Full-scale tests at a transnational level needs an efficient transnational collaboration.

What kind of partners you are looking for? : We need additional (core team exists) European stakeholders of sea and waterway transportation (sea ports, inlands ports, waterway carriers, customs, international organisation like CCNR - Central Commission for Navigation on the Rhine , ...)

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