

Smart Track 4 Waterway

Smart Tracking Data Network **for** Shipment by Inland **Waterway**

Modal shift to waterway fostered by hierarchical tracking



An European consortium

Partners



































































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UMR CNRS 8201



























Pallets take the boat!

Palletized freight is generally carried by road:

- ⇒ In small volumes
- ⇒ Directly from point A to point B

Main impediments to modal shift from road to waterway:

- □ IWT needs:
 - o additional transhipment operations
 - adapted vehicles and infrastructures for pallet handling
 - bundling of several small volumes
 - more complex logistics engineering
 - o more administrative burden





ST4W breakthrough

Hierarchical tracking data exchange platform:

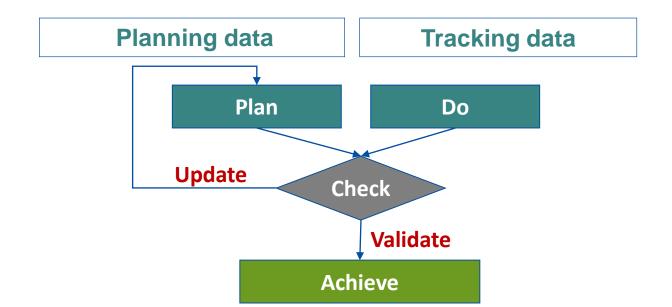
- **⇒** linking tracking data from fragmented sources:
 - vessels & trucks geo-localization
 - last known location of logistics units (pallets ...)
 - successive cargo tracking in multimodal environment:
 - o what pallet in what vessel, in what truck?
- ⇒ sharing standardized & secure information:
 - where everyone is master of his own data
 - and shares it only with chosen partners
- ⇒ proposing real time follow-up of shipment:
 - end to end seamless visibility
 - synchronization between logistics & IWT actors
- ⇒ tackling modal shift impediments:
 - multi-stop & multi-client vessels





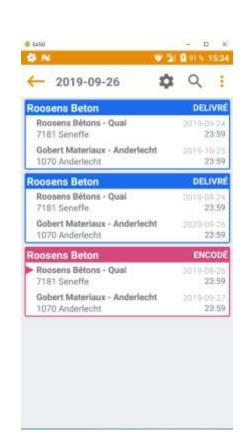
Proposing real-time follow-up of shipment

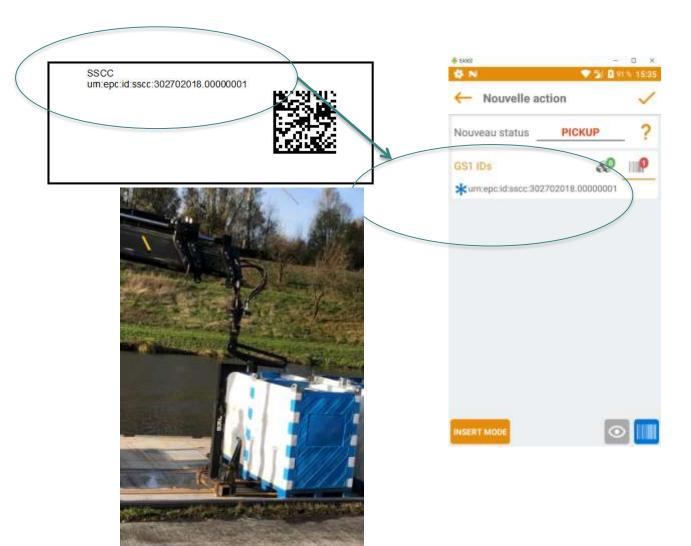
- ⇒ Automatic update of logistics unit status (pallet, container ...)
- □ Automatic alert in the case of delay or loading the wrong logistics unit
- ⇒ Real-time update of ETA (Estimated Time of Arrival) of each logistics unit, throughout the multimodal supply chain
- Electronic proof of delivery at each step





Hierarchical tracking with on board smart-phone







Planing & Progress

Ship From

Grand-Couronne

FR

Normande de Manutention Bolloré

76530

Rue Henri de Rochebouet

Waypoint 1

Gennevilliers

ED

Paris Terminal

92230

6 Route du Bassin Numéro 1

Ship To

Bonneuil sur Marne

FR

5 Route de Stains Bonneuil sur Marne

94380

5 Route de Stains

Planed Time

Estimated Time

Departure

Mar 1, 2022

Arrival

Mar 1, 2022

Departure

Mar 1, 2022

Arrival

Arrival

Arrival

Mar 1, 2022

Departure

Departure

Actual Time

Departure

Mar 1, 2022

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Arrival

PICK-UP Normande de Manutention Bolloré



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ARRIVED AT PF Paris Terminal

TRANSSHIPMENT Paris Terminal



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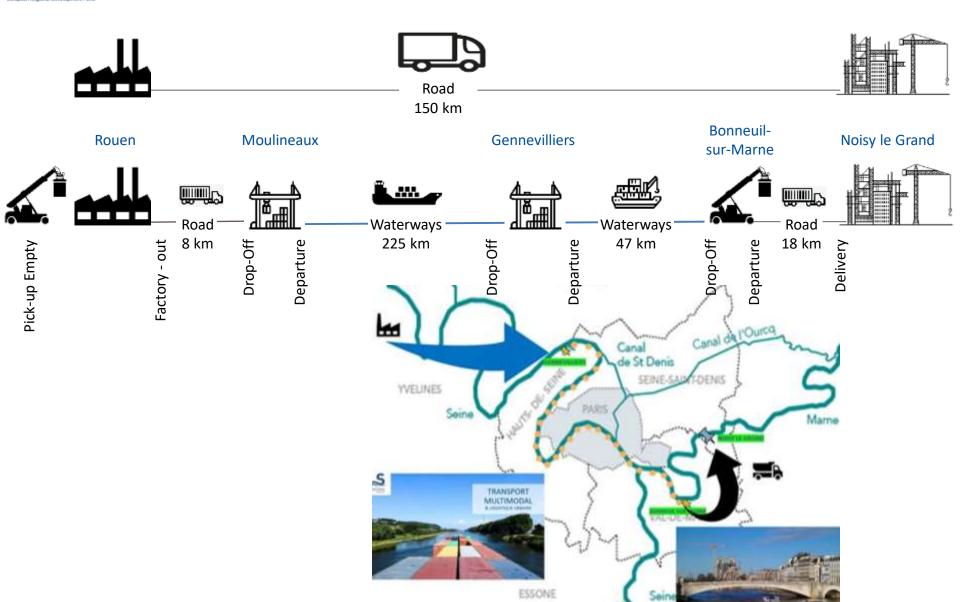
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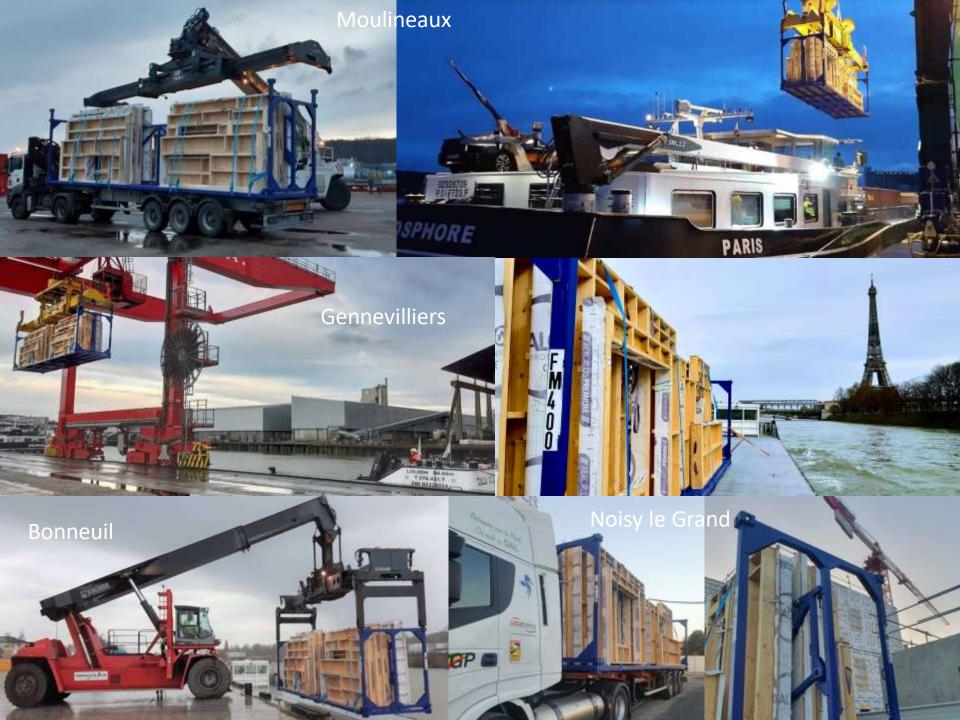
TRANSSHIPMENT Paris Terminal

DROP-OFF 5 Route de Stains Bonneuil sur Marne



French pilot







Capitalisation: better connect IWT with multimodal last-mile logistics

Digital interconnection between IWT and urban logistics

Physical interconnection: Innovative vehicles & transhipment

- Various vessel sizes
 - Maasdam (1 250 T)
 - Zulu (330 T)
 - GreenWave (20 T)
- Standardized & modular containers
 - FlexiMalle
 - Urban containers
- Urban waterfront hubs.
 - BCCC Brussels
 - CMDU Lille
- Last-mile thanks to eco-friendly vehicles
- Circular IWT logistics
- 5 Testbeds
 - FR : Paris, Lille
 - BE: Gent, BXL, Wallonia









