

# **Smart Track 4 Waterway**

Smart Tracking Data Network for Shipment by Inland Waterway

Modal shift to waterway fostered by hierarchical tracking



## An European consortium



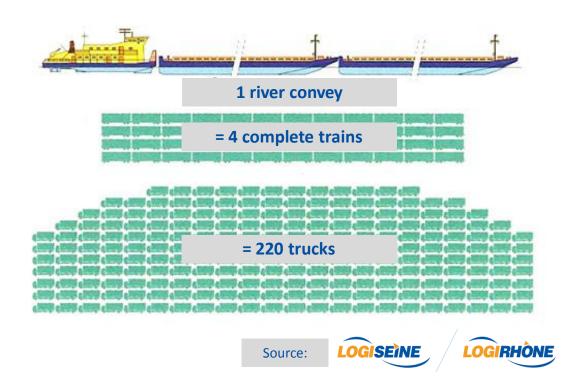


# **Initial observations**

#### **IWT predominantly used by large companies for bulk & big volumes:**

- ⇒ Used to a small extend by SMEs
- ⇒ Used to a very small extend for palletized freight.







# Pallets take the boat !

### Palletized freight is generally carried by road:

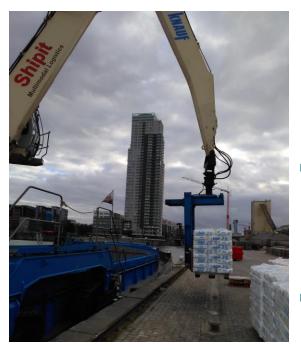
- ⇒ In small volumes
- ⇒ Directly from point A to point B

### Main impediments to modal shift from road to waterway:

- ⇒ **IWT** needs:
  - ${\rm \circ}\,$  additional transhipment operations
  - $\,\circ\,$  bundling of several small volumes
  - $\,\circ\,$  more complex logistics engineering
  - $\circ$  more administrative burden
  - adapted vehicles and infrastructures for pallet handling







### Hierarchical tracking data exchange platform:

#### ⇒ linking tracking data from fragmented sources:

- o vessels & trucks geo-localization
- $\circ$  last known location of logistics units (pallets ...)
- o successive cargo tracking in multimodal environment:

**ST4W breakthrough** 

 $\,\circ\,$  what pallet in what vessel, in what truck?

#### ⇒ sharing standardized & secure information:

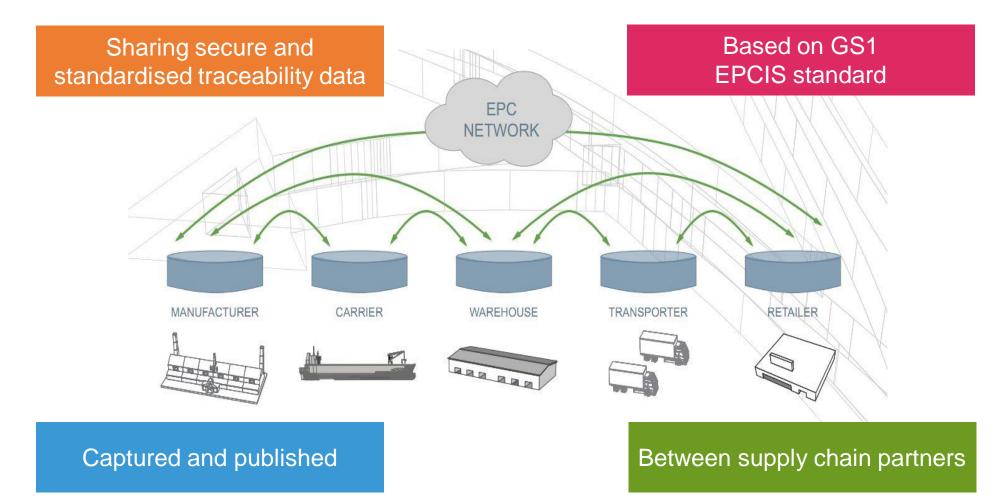
where everyone is master of his own data
and shares it only with chosen partners

#### ⇒ proposing real time follow-up of shipment:

- $\circ$  end to end seamless visibility
- $\,\circ\,$  synchronization between logistics & IWT actors

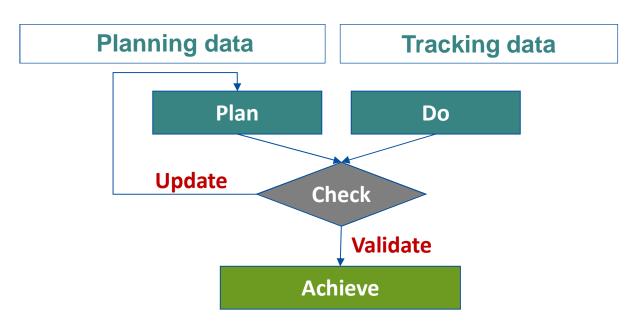
# tackling modal shift impediments: multi-stop & multi-client vessels

# Interreg ST4W ST4W





- ⇒ 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



# North-West Europe ST4W

# **Online tracking of shipment status**

**Transports Instruction View** 

From ::To ::Rue Wauters 152Quai de Biestebroeck, 90Seneffe - 7181Anderlecht - 1070BEBEurn:itop:sgln:L42501561.020urn:itop:sgln:L42501561.021

Date Create 🔿	Class Content 🔿	Direction (\$	Edi Status 🔿
09/10/2019 18:11:48	TransportStatusNotificationMessageType	< .	✓ DROPOFF
09/10/2019 18:11:17	TransportStatusNotificationMessageType	٠.	ROUTING
09/10/2019 18:10:17	TransportStatusNotificationMessageType	٠.	SCOUTING
09/10/2019 18:09:53	TransportStatusNotificationMessageType	٠.	PICKUP
09/10/2019 18:09:01	TransportInstructionResponseMessageType	٠.	✓ ACCEPTED
09/10/2019 18:08:43	TransportInstructionMessageType	>	SENT





- ⇒ Construction materials:
  - Tests with BLL & Roosens, Shipit & Knauf
    - 29 vessels voyages have been done
    - Including 2 multi-stop voyages
  - An interface between Roosens' ERP and ST4W Engine is in progress
  - 49 other miscellaneous voyages (figures as of 30/06/21)

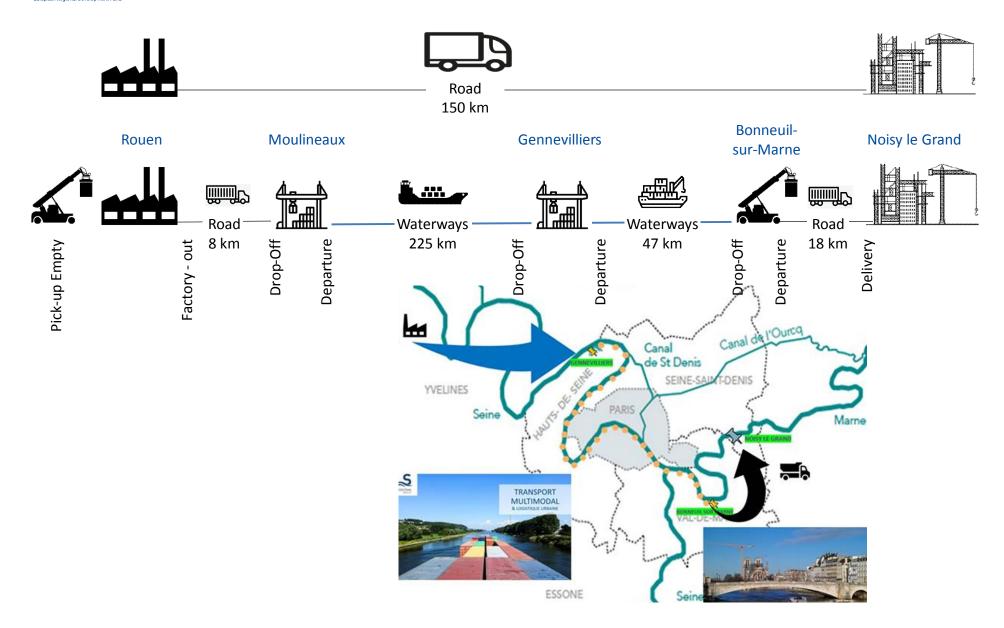
Livraison Vente Transport terminé Date d'emission 12/02/2000 9.57 AM Mode livraison Zoutou 3001 Grue BE Vahicule Chauffeer	COM DE DISTEABROECK 90 1070 ANDERLECH 1084 A DE DISTEABROECK 90 1070 ANDERLECH 1084 A DE DISTEABROECK 90 1094 A DE DISTEABROECK 90 1094 A DE DISTEABROECK 90			
Amvee Depart Debut dkm. Fin dechar Rotour Pal, vides Pal, vider		GOBERT MATER		
Domm : of 15363 - Chargement Bateseu	- Nauve	States and the state of the state	~	
Contact Projet Statut TERMINE	Nouveau stat	PICKUP	?	
Description	Articlos	🛫 🐢	110	
BLOC L BETON L'h'e om: 39*19*18 EN 771-3+A1-CE/Benor	* <sup>11800</sup> Per 542520	101010	+13	
	* Net Statistics		-	
	* Ref BOILTED	(I) Desta	. 490	
CodeArticle BC519039010 Polds/p	* Net BUILDED	18010		
	* Net Septem	Norman war	14	
	* Net BA25500	1900010	19	
	* Ref Sapson	ASISTO	-	
	* Tem		0	
		Tables		

	North-West Europe ST4W					
A A A A A A A A A A A A A A A A A A A		Home Transports Tran	s > Transport Detail			
	🚯 Dashboard	Transports Instruction View				
		From ::			То ::	
		Rue Wauters 152 Seneffe - 7181 BE			90, Quai de Biestebroeck Anderlecht - 1070 BE	
		urn:itop:sgln:L42501561.020	0.0		urn:itop:sgln:L42501561.021.0	
		Date Create ()	Class Content (*)	Direction (e)	Edi Status (e)	
The second se		12/02/2020 10:20:00	TransportStatusNotificationMessageType	<	Ø PICKUP	
		12/02/2020 08:28:15	TransportInstructionResponseMessageType	٢	✓ ACCEPTED	
		11/02/2020 17:38:02	TransportInstructionMessageType	19	SENT	



**French pilot - Scenario** 

European Regional Development Fund

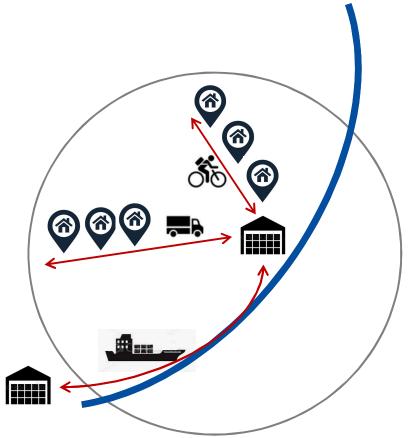






#### IWT is an easy way to enter dense urban areas

⇒ Almost all major NWE urban areas are on the waterways





# better connect IWT with multimodal last-mile logistics

### **Digital interconnection: ST4W tool for synchronisation**

- <sup>"</sup> Data exchange between IWT and urban logistics tracking systems
- <sup>"</sup> Resource booking shared planning
- " Management of multi-products & multi-clients operations

### **Physical interconnection: Innovative vessels and transhipment**

- " Flexi-malle
- " GreenWave
- ″ Zulu
- " Oorderdam









## **Key components**

#### Last-mile thanks to eco-friendly cargo-bikes and vans



#### **Circular IWT logistics**



#### Test-beds will include Paris, Lille, Liège, Brussels and Ghent.