

## Initial Approach to **Smart Contract Generalization in** Freight Logistics



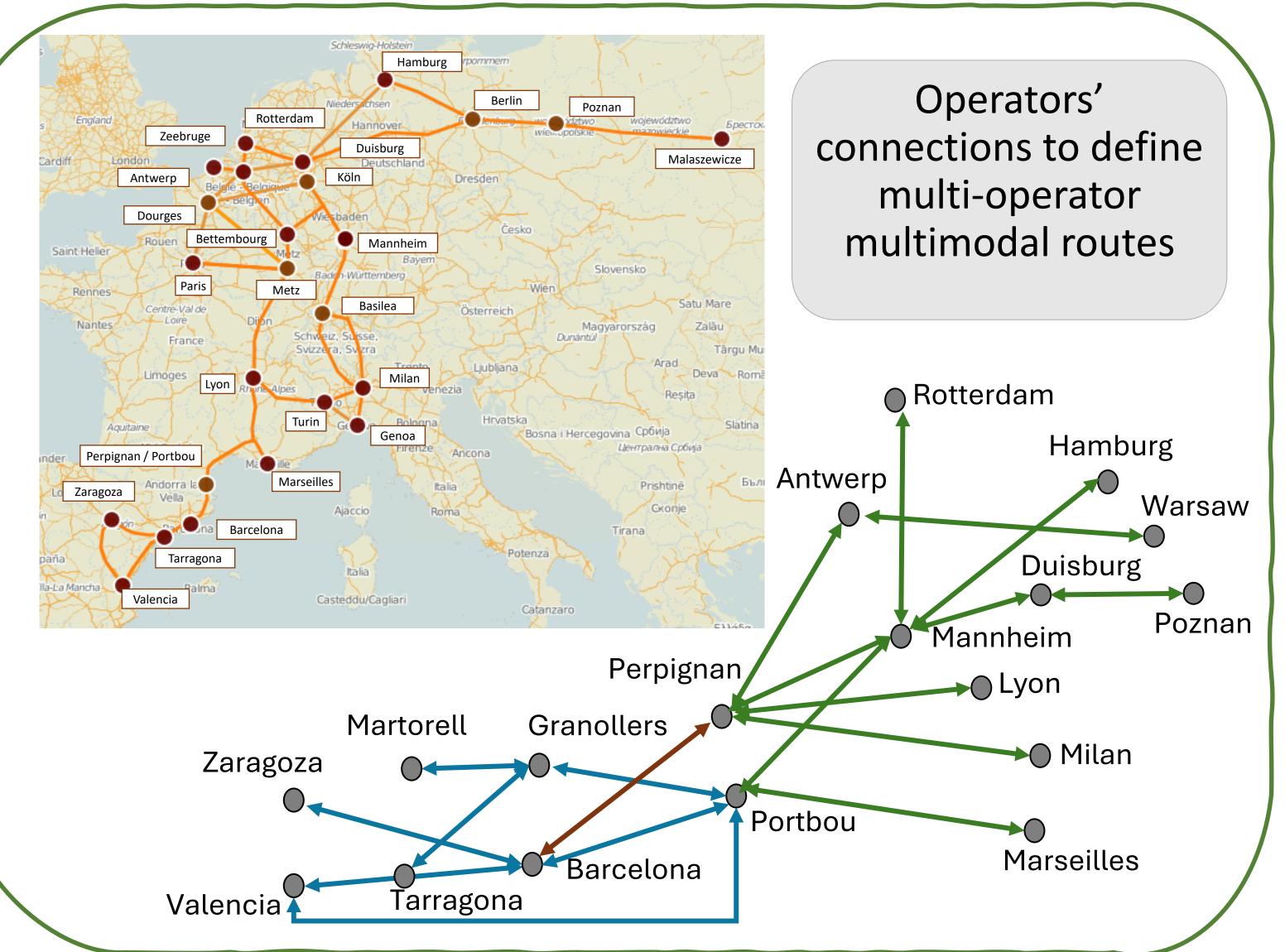
The European Shift Enabler Portal for Freight

## WEB-PLATFORM BASED ON THREE PILLARS

- 1. Access to operators' schedules to define multimodal multi-operator freight transport routes
- 2. Establishment of a contractual framework to facilitate relationships among the different stakeholders involved in transporting goods
  - 3. A visual map to depict the current state and potential of freight transport by train

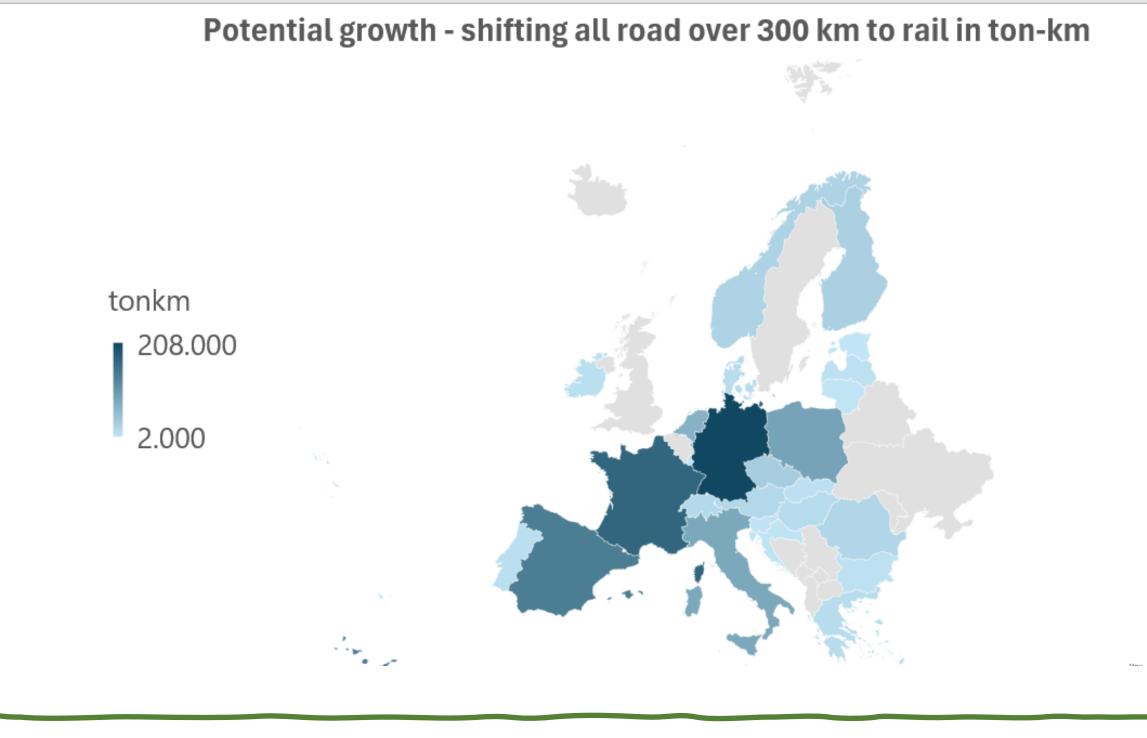
## OPERATOR SCHEDULES FROM EIFA PROJECT

| Timetable valid dates          |                                | S         | Origin                          |         | Destination |                                   | Closing for LU at origin |         | n<br>Days of       | Provision of LU at destination |      | Clearance<br>Gauge for |                    | CT Operator                 |           |                           |                            |                    |          |                                 |
|--------------------------------|--------------------------------|-----------|---------------------------------|---------|-------------|-----------------------------------|--------------------------|---------|--------------------|--------------------------------|------|------------------------|--------------------|-----------------------------|-----------|---------------------------|----------------------------|--------------------|----------|---------------------------------|
| Start                          | End                            | UIRR Code | Terminal<br>Name                | Country | UIRR Code   | Terminal<br>Name                  | Country                  | Days    | Time               | Departure                      | Days | Time                   | Railway<br>Network | Name                        | RICS Code | Contact<br>Person<br>Name | Contact<br>Phone<br>Number | E-Mail<br>Address  | Web Link | Others                          |
| 01.01.202<br>3 00:00<br>+01:00 | 31.12.202<br>4 23:59<br>+01:00 | 575       | DUSS<br>Terminal<br>Karlsruhe   | DE      | 508         | DUSS<br>Terminal<br>Berlin        | DE                       | 1000000 | 12:00:00<br>+01:00 | 1000000                        | В    | 08:00:00<br>+01:00     | C70 C400<br>P400   | EIFA TEST<br>Intermoda<br>I | 3432      | Jane Doe                  | +49<br>1234523             | name@e<br>mail.com |          | LU:<br>Container                |
| 15.01.202<br>3 00:00<br>+01:00 | 15.05.202<br>5 23:59<br>+01:00 | 561       | DUISBURG<br>RHEINHAU<br>SEN DIT | DE      | 421         | VERONA<br>QUADRAN<br>TE<br>EUROPA | ΙΤ                       | 1000000 | 18:00:00<br>+01:00 | 1000000                        | D    | 06:00:00<br>+01:00     | C70 C400<br>P400   | EIFA TEST<br>Intermoda<br>I | 3432      | John Doe                  | +49<br>1234523             | name@e<br>mail.com |          | LU: Trailer<br>and<br>Container |



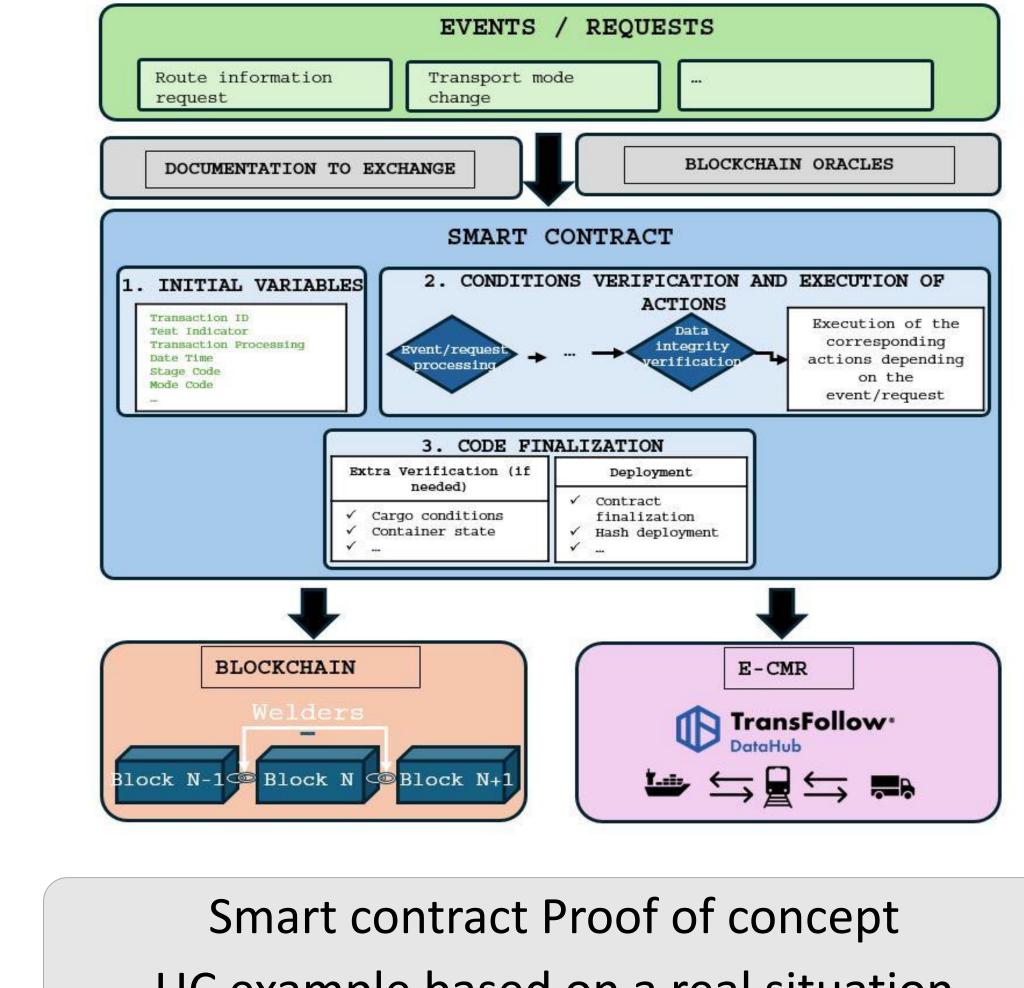
Freight Transport Flow analysis following EU recommendations:

- Detecting potential growth from shifting road transport over 300 km to rail
- Identifying those regions with the potential to grow

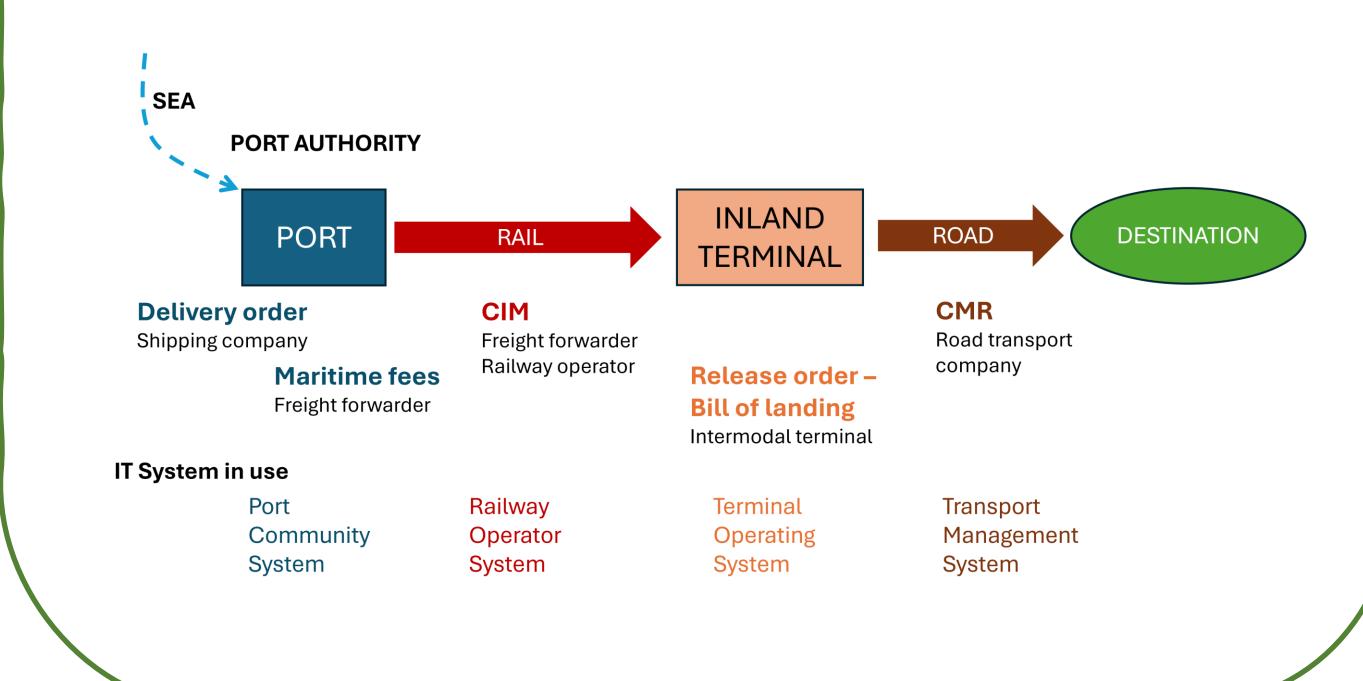


Showing the potential benefits of using Smart contracts in the multimodal freight transport chain

- Analysing state-of-the-art blockchain technologies applied to freight transport
- Presenting the pros and cons of using Smart Contracts



UC example based on a real situation









Project coordinator: Royal Institute of Technlogy (KTH) of Stockholm. For more information go to: www.ESEP4Freight.eu



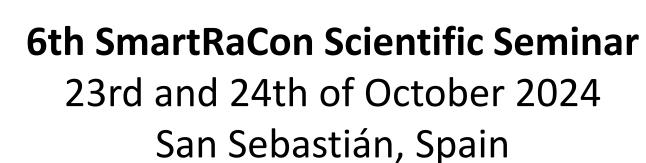
TENALACH

CONSULTING



**UIRR** 





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The project is suported by the

Europe's Rail JU and its members



