

COST-BENEFIT OF DATA SHARING FOR CT: INSIGHTS FROM A TSITELEMATICS IMPACT ASSESSMENT

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CONsilis
Innovation and Business Ecosystem Transformation

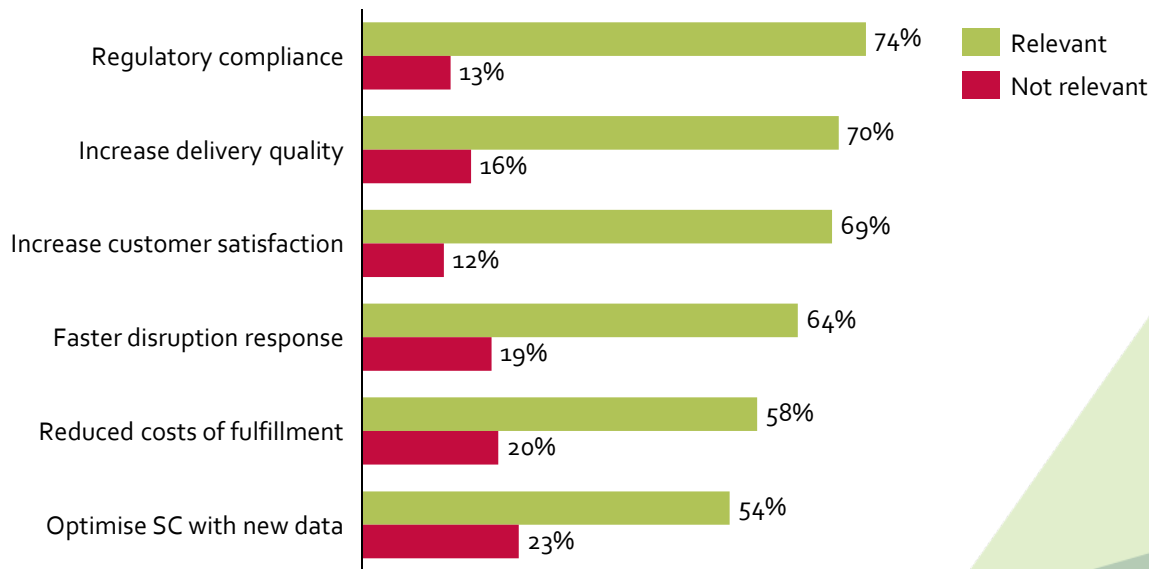
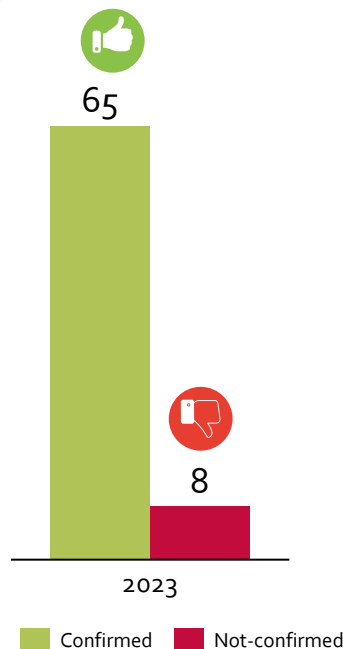
Customers demand data sharing



Do cooperation & data sharing increase supply chain efficiency? ¹



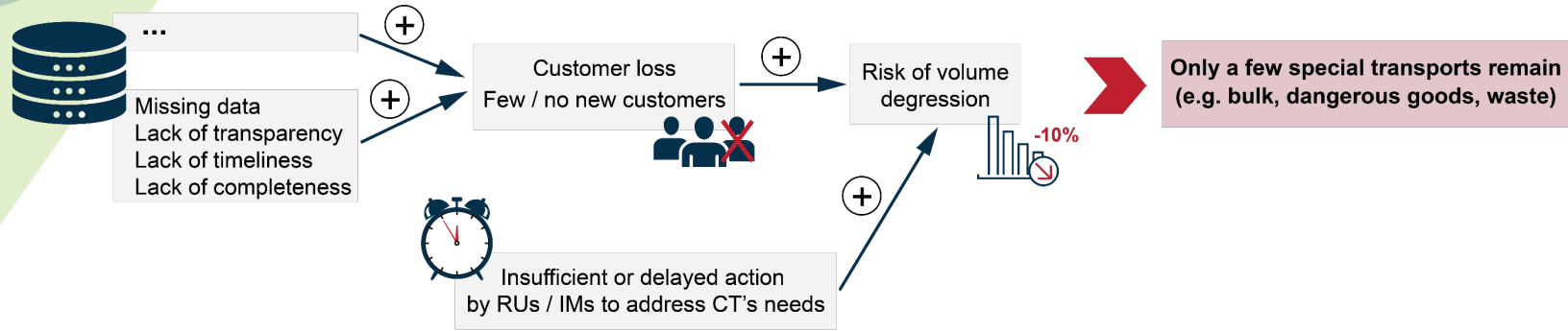
Benefits to be unlocked from an improved supply chain visibility? ¹



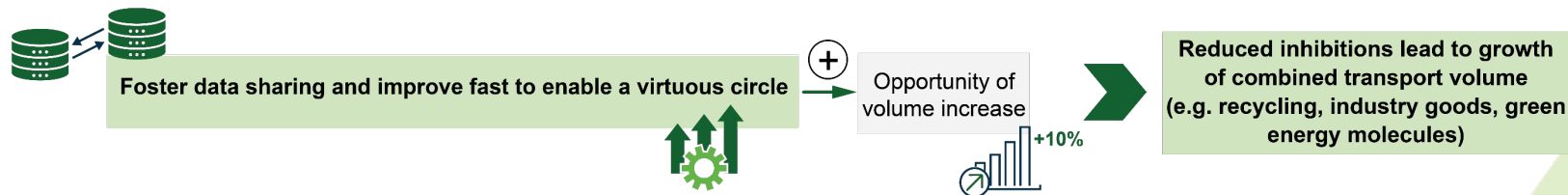
¹ 17th Hermes-Barometer "Collaboration in the supply chain" 2023, 150 supply chain interviewees from companies with > 250 employees

Challenges of data sharing demand urgent call for action!

As-is Scenario



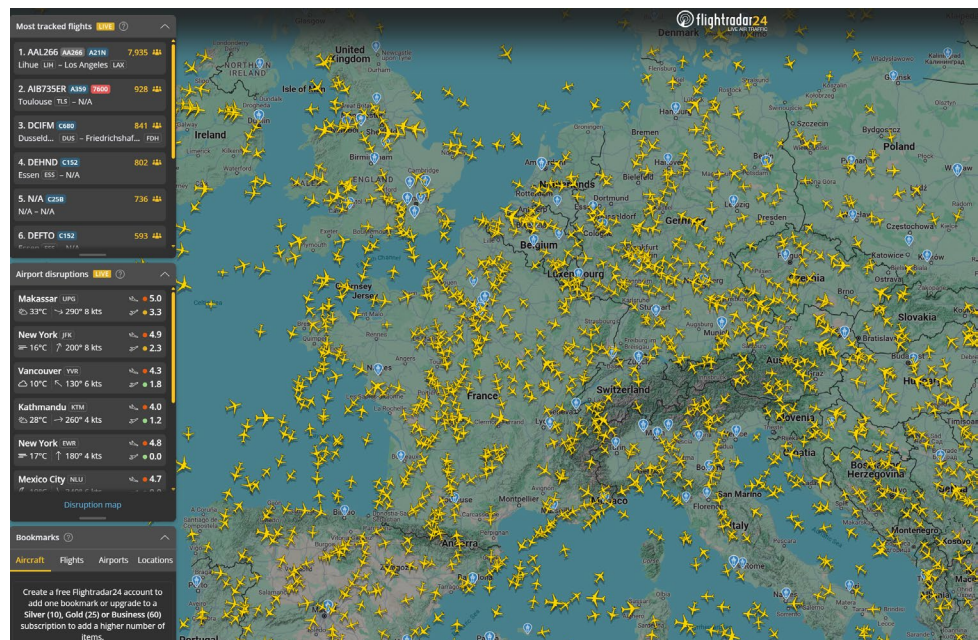
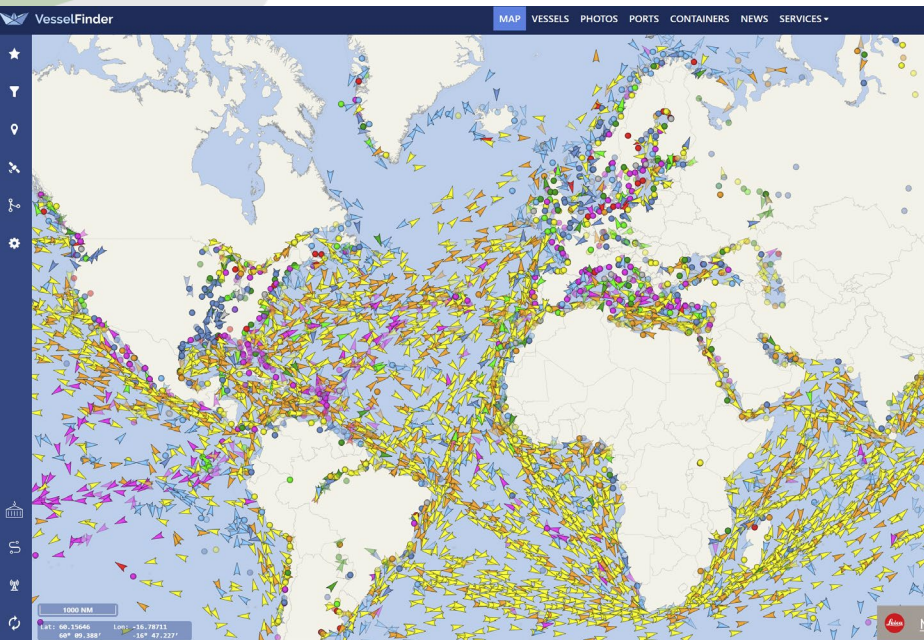
Positive Scenario



Legend

⊕ The more the more

Other modes make position w/o cargo data available!



Energy and military transports, PAX and Cargo flights are visible!

TSI Telematics elements supported by UIRR & members



#	UIRR support	Legal Text (ENo8)
1	Data sharing between all involved parties (incl. freight customers)	Art. 3 (9), Art 4
2	Recognition of Intermodal Transport Operators (CTOs) and Combined Transport Terminal Operators	Recitals: (7) Act: Art. 3 (9) (33) (34)
3	Enhanced IT platform design	Common Union API: Art. 14 (5) (b)
4	Involvement of Freight Terminal Operators in the new data sharing design	Art. 21 (3)

TSI Telematics Impact Assessment for Combined Transport Freight Terminal Operators

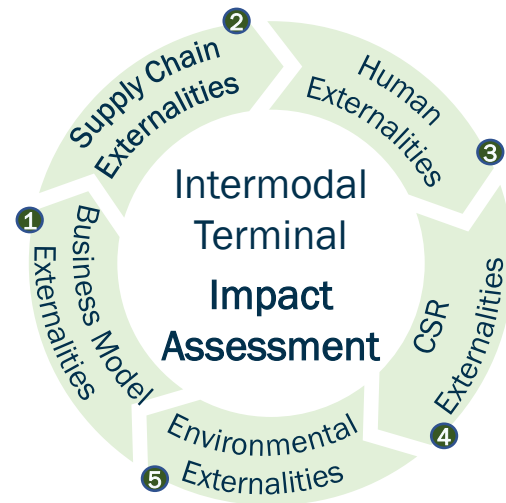
Two TSI Telematics versions underlying (ENo7 & ENo8)

Selection of terminals:

- 5  EDICT project terminals (30-month EU-funded project¹)
- 3 Non-EDICT terminals

Comprehensive assessment schema with two possible scenarios:

- **Scenario A:** 8 data exchange requests (ENo7)
- **Scenario B:** 4 data change requests (closer to ENo8)



Scenario A
Comprehensive
(ENo7 fully implemented)

Scenario B
Fit-for-purpose
(ENo7 partially implemented)

¹ www.edict-project.eu active until Feb 2025

Impact Assessment: Method to forecast impact & results

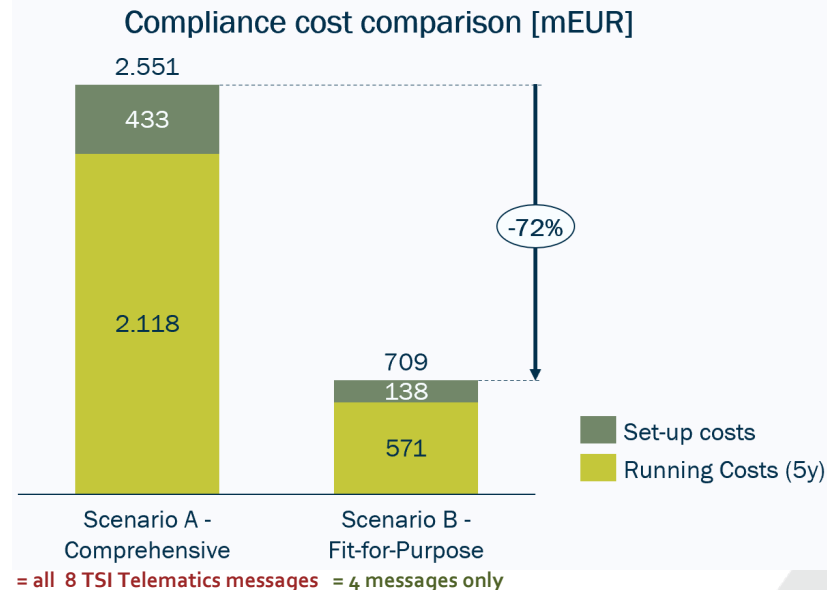


Results

- 1 Intro to TSI Telematics + Questionnaire on impact of it covering value, costs, time & resources

#	Requirement	Details	Message 1	Message 2	Message 3	Message 4	Message 5	Message 6	Message 7	Message 8
			Participant	Working/terminal	TEU	Wagon messages	100	100	1000	1000
1.1	Process change	Impact on current operations								
1.2	Process change	Benefit on downstream								
1.3	Process change	Risks (complexity, resources)								
1.4	Process change	Preparing impact								
1.5	Process change	Costs (M€)								
1.6	Process change	Duration (months)								
2.1	Application (O&M) change	Impact on current operations								
2.2	Application (O&M) change	Benefit on downstream								
2.3	Application (O&M) change	Risks (complexity, resources)								
2.4	Application (O&M) change	Preparing impact								
2.5	Application (O&M) change	Costs (M€)								
2.6	Application (O&M) change	Duration (months)								
3.1	Interface	Impact on current operations								
3.2	Interface	Benefit on downstream								
3.3	Interface	Risks (complexity, resources)								
3.4	Interface	Preparing impact								
3.5	Interface	Costs (M€)								
3.6	Interface	Duration (months)								
4.1	Running costs (cost 5y)	Data storage (M€)								
4.2	Running costs (cost 5y)	Personnel costs (M€)								
5.1	Existing go-live data	Data								

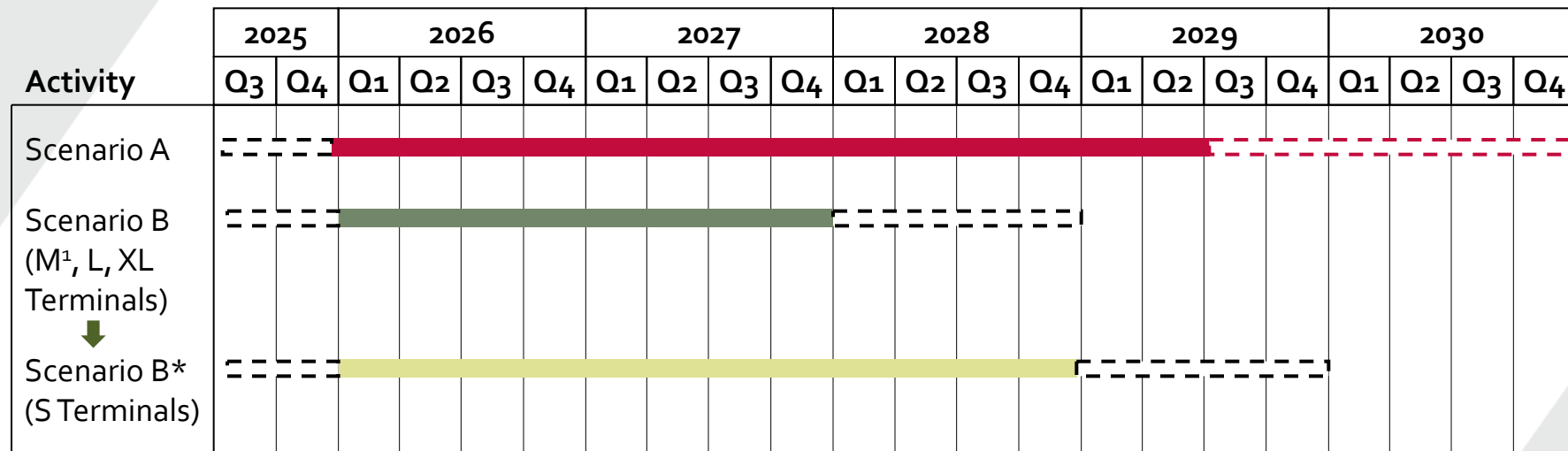
- 2 8 TEN-T terminals interviewed ¹
- 3 Companies classified into terminal categories
- 4 Rough-cut extrapolation to the 1'200 European freight terminals
- 5 Holistic assessment of in all dimensions



¹ All terminal sizes covered from small (< 5 trains per day, < 40 employees, and c 150 TEU p.a.) that equal 62% of EU terminals to X-large (> 50 trains, > 250 employees and > 600T TEU p.a.)

Timelines are too tight for small freight terminals

Results



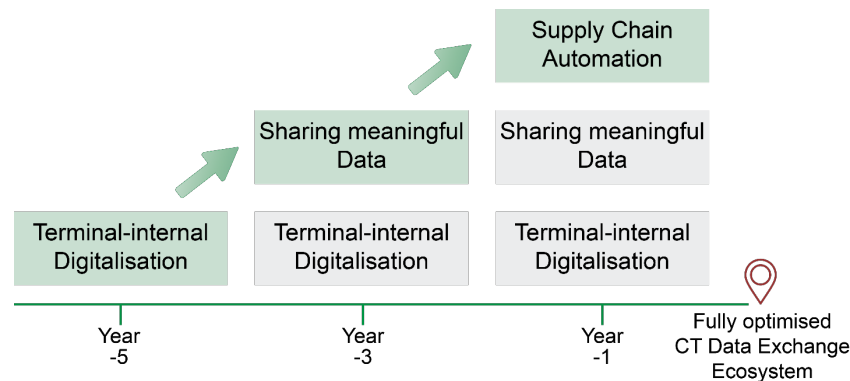
Further analysis and assessment of likelihood of improved IT integration services and interoperability required for higher confidence levels.

¹ Depending on the digital capabilities some M CT Freight Terminals may belong to the Scenario B* group. The delineation requires further analysis.

Implications for all stakeholders

1. Willingness to share data confirmed
2. Gradual learning requires time and resources
3. Roadmap required to enhance capabilities (coordinated & resource efficient)
4. **Interoperable data and IT platforms for fast adoption** (incl. transparent, cost efficient and simple CT data governance)
5. **Efficient end-to-end data exchange to reap efficiencies possible to achieve better customer satisfaction**
6. **Future resilience will require more data sharing** (e.g. customer requirements, CO₂, eFTI, Combined Transport Directive)

Collaborate to build future Combined Transport digital supply chain ecosystem now!



TSI Telematics elements **not** supported by Combined Transport stakeholders

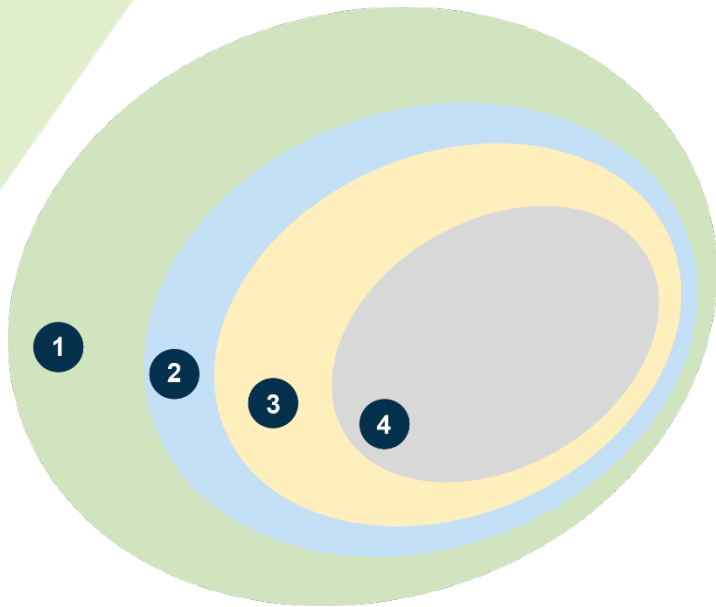


#	UIRR Position on	TSI Text (ENo8)	Recommendation from Impact Assessment
1	Cost-efficient supporting IT service infrastructure	IT platform interoperability stakeholder alignment required	Reduce data sharing cost burden => Supported by neutral coordination (e.g. by ERA)
2	General timeline for all terminals	Until 13.12.2027	Extended allowance for those who are today not digitally advanced (dominantly smaller ones)
3	Data exchange scope	All messages in focus	Limit the quantity and content of data shared reduces costs for CT Freight Terminals
4	Train Composition Message	Mandatory processing for all terminals with a direct path to the terminal	=> Further analysis on the scope and impact recommended
5	Public data exchange	Mandatory for all may have adverse effects; not common practice in other modes	=> Constraining recipients and scope to be considered



Public data sharing is not necessarily the required outcome

Important step forward: Choice of the requisite degree of data sharing



- 1. Public:** all data accessible to everybody
- 2. Open:** all data accessible to all involved parties (SC stakeholders & contracted IT platforms)
- 3. Selective open:** Specific set of data¹ to be shared with all legitimate stakeholders (and contracted IT platforms)
- 4. Private:** Only bilateral exchange of all data between two known parties

¹ Standardisation of the supply chain relevant data has not yet happened in the rail and rail-road sector which should be urgently performed



INTERNATIONAL UNION
FOR ROAD-RAIL
COMBINED TRANSPORT

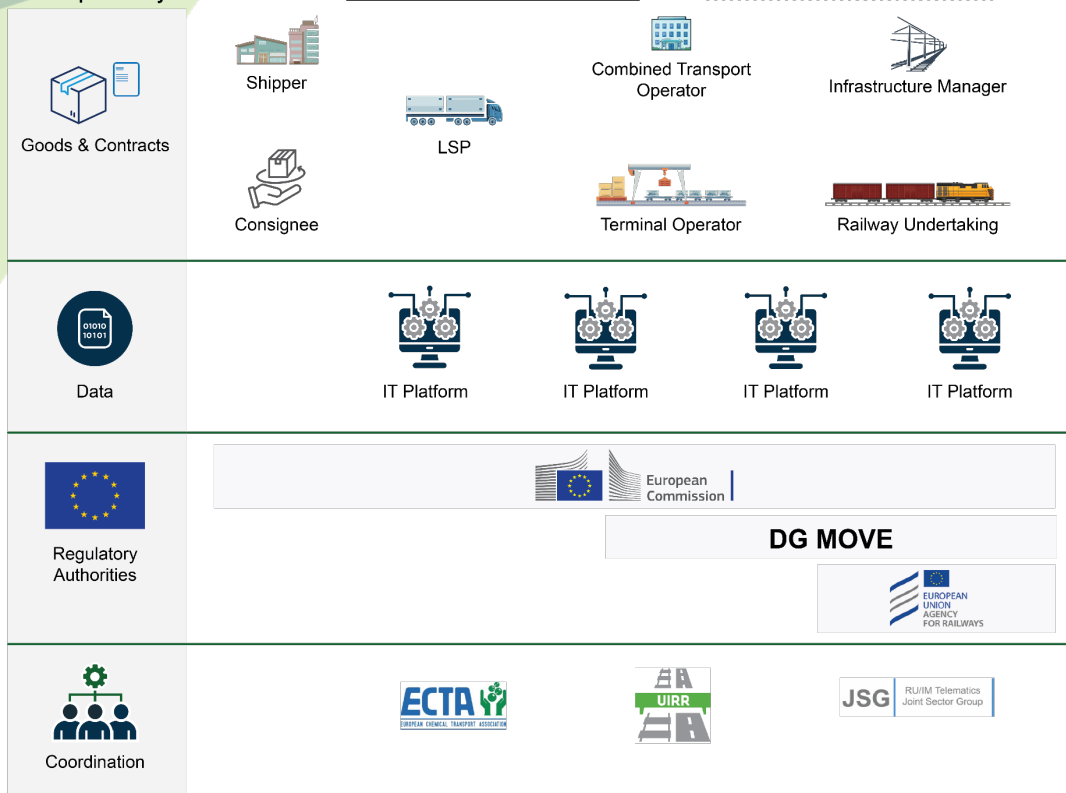


20th May 2025

Objective today: How to improve the situation together with all stakeholders!



Area of
core responsibility



Relevant parties from an end-to-end perspective are invited to shape the future data sharing ecosystem design!