

5th July 2022

European Logistics Innovation Day BOOSTLOG project's event

6th July 2022 ALICE General Assembly

Boosting impact generation from research and innovation on integrated freight transport and Logistics system

BOOSTLOG in a nutshell

Fernando Liesa Secrretary General ALICE



BOOSTLOG Basic Information

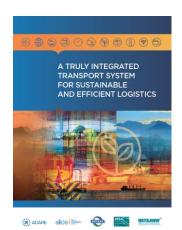
- Project name: BOOSTing impact generation from research and innovation on integrated freight transport and LOGistics system (BOOSTLOG)
- Starting date: 1 January 2021
- **Duration:** 36 months until the end of 2023
- Total funding: 1 M€
- Project type: Coordination and Support Action (CSA)
- **Programme:** Horizon 2020
- **Topic:** MG-2-13-2020 Coordination and support for an integrated freight transport and logistics system
- More info: https://www.etp-logistics.eu/boostlog/



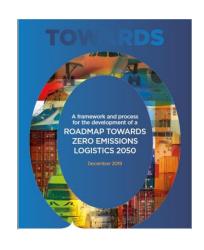


Industry Roadmaps

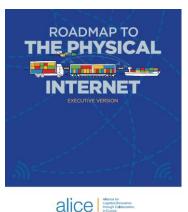
EU Priorities



2016



2019











A Europe fit for the digital age

Promoting our European way of life

An economy that works for people

R&I supporting EU and Companies objective





Liaison with the new generation of projects

Recommendations for Horizon Europe 2023-2024 & 2025-2026 programmes

Looking to the past and learning for the future

160-200 projects 1000M € invested

Identifying high priority & potential R&I gaps **Enlarge the innovation ecosystem**



Making R&I results, outcomes and implementation cases visible

30+ Implementation cases

New trends, challenges and opportunities

Innovation
ecosystem for
the logistics
sector

Innovation Marketplace

Knowledge Platform

Industry reports - logistics clouds

- Urban logistics
- Logistics nodes
- Multimodal freight corridors and transport networks
- Freight and logistics data sharing
- Logistics coordination and collaboration
- Modularization and transshipment
- + 2 more (TBD)











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Boosting impact generation from research and innovation on integrated freight transport and Logistics system

Collaboration and Coordination Cloud Report

Carolina Ciprés, ZLC Director of Research & Fernando Liesa, ALICE

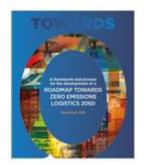




<u>Link to the cloud report – Coordination and Collaboration</u>

- 1. Introduction and methodology
- 2. Market current practice analysis







- 3. Projects' Outcomes
 - Governance, Business and Operational models
 - Managing the transition: reducing set up and transactional costs
 - Legal aspects
- 4. Implementation cases









5. Potential implementation paths



Mapped EU R&I projects







PRODCHAIN

MAIN-E



FREIGHT



securescm

URIDICE



























2001 2006 2008 2011 2015 2020



Why improving coordination and collaboration?

Expected Impact	KPIs	Projects
Decrease of environmental impact	CO2 emissions	CITYLAB, COG-LO, CLUSTERS 2.0, CO3, iCARGO, ICONET, LOGISTAR, MODULUSHCA, NEXTRUST, NOVELOG, SUCCESS, UTURN
	Local pollutants	CITYLAB, NEXTRUST, NOVELOG, SUCCESS, U-TURN
Increase transport and logistics efficiency	Increase load factors (urban, non urban, both)	CITYLAB, COG-LO, CLUSTERS 2.0, CO3, iCARGO, ICONET, LOGISTAR, NEXTRUST, NOVELOG, MODULUSHCA
	Reduce empty trips/kms	NEXTRUST, MODULUSHCA, iCARGO, CO3
	reduce empty storage/space	ICONET
	shorter delivery routes	CITYLAB, NOVELOG, SUCCESS, U-TURN
	Reduce failed deliveries	CITYLAB, U-TURN
Reduction of congestion	Reduced vehicles movements /Nr. of vehicles	CITYLAB, COG-LO, CLUSTERS 2.0, ICONET, LOGISTAR, NEXTRUST, NOVELOG, SUCCESS, U-TURN, iCARGO
Achieving and increase in modal shift to rail freight/waterways transport	Create new intermodal connections	CO3, CLUSTERS 2.0, ICONET, NEXTRUST, LOGISTAR
Decrease of overall transportation and logistics cost	Cost/unit of transport	CITYLAB, NOVELOG, SUCCESS, U-TURN, iCARGO
Increased reliability of the Supply Chain	On time delivery	COG-LO, LOGISTAR
Decreased Lead Times	Reduced Travel time	COG-LO, LOGISTAR



Where are we in achieving the expected impacts?

Targeted Impact	Nr. of projects	Status
Decrease of environmental impact in terms of GHG emissions, pollutants, and noise	11	IMS
Increase transport efficiency (load factors, empty trips, shorter delivery routes, reduce failed deliveries)	10	ISS
Reduction of congestion	9	ISS
Decrease of overall transportation and logistics cost	4	ISS
Achieving and increase in modal shift to rail freight/waterways transport	4	PoC
Increased reliability of the Supply Chain	2	TD
Decreased Lead Times	2	TD

Not demonstrated (ND), Theoretical Demonstration (TD), Proof of Concept (PoC), Implemented Small Scale (including Niche Markets) (ISS), Implemented Medium Scale/Several Companies (IMS), Implemented Large Scale/Mainstream in Industry (ILS)





Scope and strategies on how to achieve the expected impacts

Targets

Scope

Specific Strategies

Increase Load Optimization/factors

> Reduce empty moves/kms

shift to rail/waterways **Transportation**

Urban/ City (less than 100 kms)

Last Mile/ Regional

(100-350 kms)

Medium Distance Freight **Transport** (350-1000 kms)

Long Distance Freight **Transport** (>1000 kms)

Combine volume and weight - fill to the roof

Reduce kms between FTLs assignments

Combine FTLs creating new intermodal routes

Combine LTLs (pallets)

Combine **Parcels**

Modular **Packaging**

Integrate direct and

reverse flows

Increase parcels delivered per stop

consolidation + FTLs

Combine LTLs

Reduce empty storage/space

Storage

Open up storage capacity

Access to open storage networks





Barriers and guidelines

BARRIERS	GUIDELINE
Scalability of governance, business and operational models	 Smaller prizes, fragmented flows in terms of volumes or destinations, not stable with high variability may direct you to a "platform" solution trusting in the system: online trustee (e.g. TRANSPOREON, CRC-SERVICES, OGOSHIP, MIXMOVE). Stable and big flows may direct you to customized trustee models (TRI-VIZOR) Be concrete in defining your case (see section 1.1. and 1.2 of the report). Start within your company, looking for complementary flows or how to combine volume and weight in your shipments. Define these as KPIs The more companies participating the more resilient/sustainable is the model.
Complexity of the transition management: Transactional, set-up and operational costs hinder benefits from efficiency gains	 Clearly define the prize/benefit which will direct to a concrete governance or business model. Identify clearly what needs to change in your supply chain to achieve the benefit: some flexibility will be needed! Start with higher prizes opportunities. Test small but think big in terms of potential impact.





Barriers and guidelines

BARRIERS	GUIDELINE
Legal issues: Competition rules compliance	 Go beyond the myth: "Logistics Coordination and Collaboration is not legal" Several governance models (see above) are demonstrated already with a solid legal framework: choose the one that fits better your needs. Make sure you are supported properly in the process: there is plenty of knowhow market ready.
The collaboration framework requires soft/behavioural aspects to be addressed Not finding good partners Collaboration culture Unbalanced flows in terms of time and volumes Losing SC control (including losing purchasing power) Work with competitors	 Create your company framework: investigate the different governance, business and operational models and legal framework clearly addressing all the guidelines mentioned in this table. Complementarity is key. Define who are your potential collaborators. Organisations should share goals and be committed to overcome barriers and ready for change. Start with those ones already understanding the prize and the requirements. Do not press companies that are not ready /have a clear interest. Let them return naturally. If competitors are around the table, a trusted organization (trustee) needs to arrange the collaboration and arrange processes.





2. Market current practice analysis







REDEFINING FREIGHT









TRANSPOREON





Project R&I results and outcomes: *Governance, Business and Operational models*

- Horizontal Collaboration Business Model Web Accessible Set of Methods and Tools Supporting Collaboration And Co-Modality:
 - Collaboration and Co-modality Example
 - Shapley Gain Sharing Calculator
 - Collaboration Trustee Game
- Horizontal collaboration in Less-than-truck-load (LTL) transport flows across shipper in a trusted network environment to create "collaborative FTLs"
- Business models considering the Physical Internet approach to use modular cargo units
- Physical Internet governance models













3. Project R&I results and outcomes Managing the transition: reducing set up and transactional costs

- Independent Pan-European platform that creates scale among shippers to drive horizontal supply chain collaboration through bundling their transportation needs with other shippers
- Massification project to develop horizontal collaborations among shippers to bundle their freight volumes on a same train towards one destination







3. Project R&I results outcomes: *Legal aspects*

Legal framework for horizontal collaboration

- Collaboration agreement between the shippers
- Agreement between shippers and trustee
- Framework carriage contract between shippers and LSPs

Legal framework

- Legal aspects in the pre-contractual phase
- Competition law aspects
- Legal definition of the trustee concept
- The effect of the absence of an international convention on multimodal transport
- General framework for e-commerce









4. Implementation cases





From



to











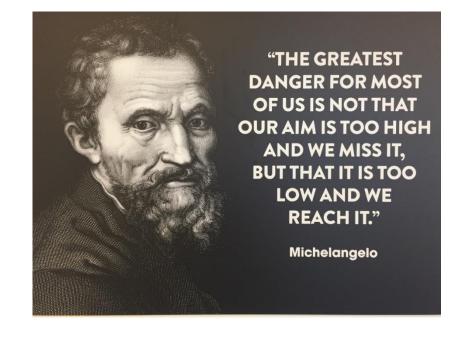


5. Potential implementation paths/enablers for acceleration of implementation

- Growth of initiatives in terms of market share
- Disruptive initiatives with scalability potential
- Decarbonization as a trigger for scale implementation
- Inclusion of carbon emission costs into the total costs
- Reducing transition cost digitalization and connectivity
- Implementations in the rail sector governance



Thank you!



The Best Way To Predict The Future Is To Create It!

Source: President Abraham Lincoln

If you want to go fast, go alone If you want to go far, go together







