

**alice** | Alliance for  
Logistics Innovation  
through Collaboratio  
in Europe



The next normal in urban logistics: The ALICE forward-looking actions on the Physical Internet to achieve inclusive, shared and interconnected logistics networks

Paola Cossu, CEO FIT Consulting SRL & ALICE vice-chair of the thematic group on Urban logistics



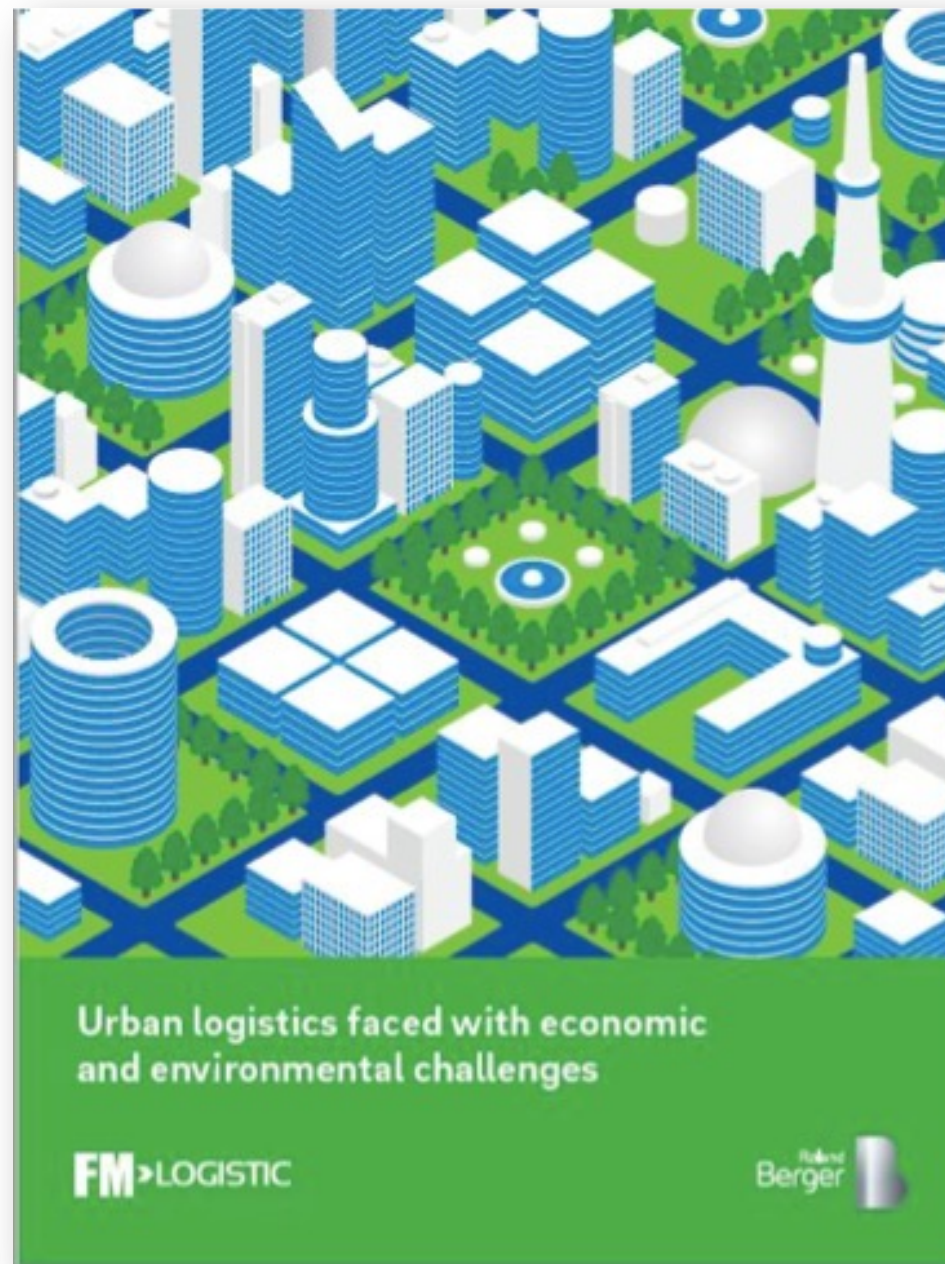
**2022  
I-NUF**

**9TH METRANS**

**International Urban Freight Conference**

May 25-27, 2022 | Hyatt Regency Long Beach

# Urban logistics faced with economics & environmental challenges



**30%**  
failure rate  
for the initial  
B2C delivery

**0,1**  
delivery/  
person/  
day

**300 to  
400 loads/  
1,000 people/  
day**

**20%**  
of city traffic  
generated  
by logistics

**30%**  
of pollution  
generated  
by logistics



# Growing demand and “bulk buying”

*if you have had no time for Christmas shopping, you could be in the 85% consumers that chose to buy gifts online*





# The genome of the 3rd generation of e-commerce and the ultra fast and hyperlocal deliveries

The journey from the consumer's interest being aroused to the product being paid for and delivered at the door must go at higher speed: we are talking in terms of ***thirty-minutes-fast***

This is *Quick Commerce*, the new black in e-commerce, that has really taken off as a result of the Covid-19.

The new retail trend evidences that choice of payment method could be as important as the choice of **delivery method**.



(source: Delivery hero)



# How ALICE and its ROADMAP goes to Zero emission UL by 2050

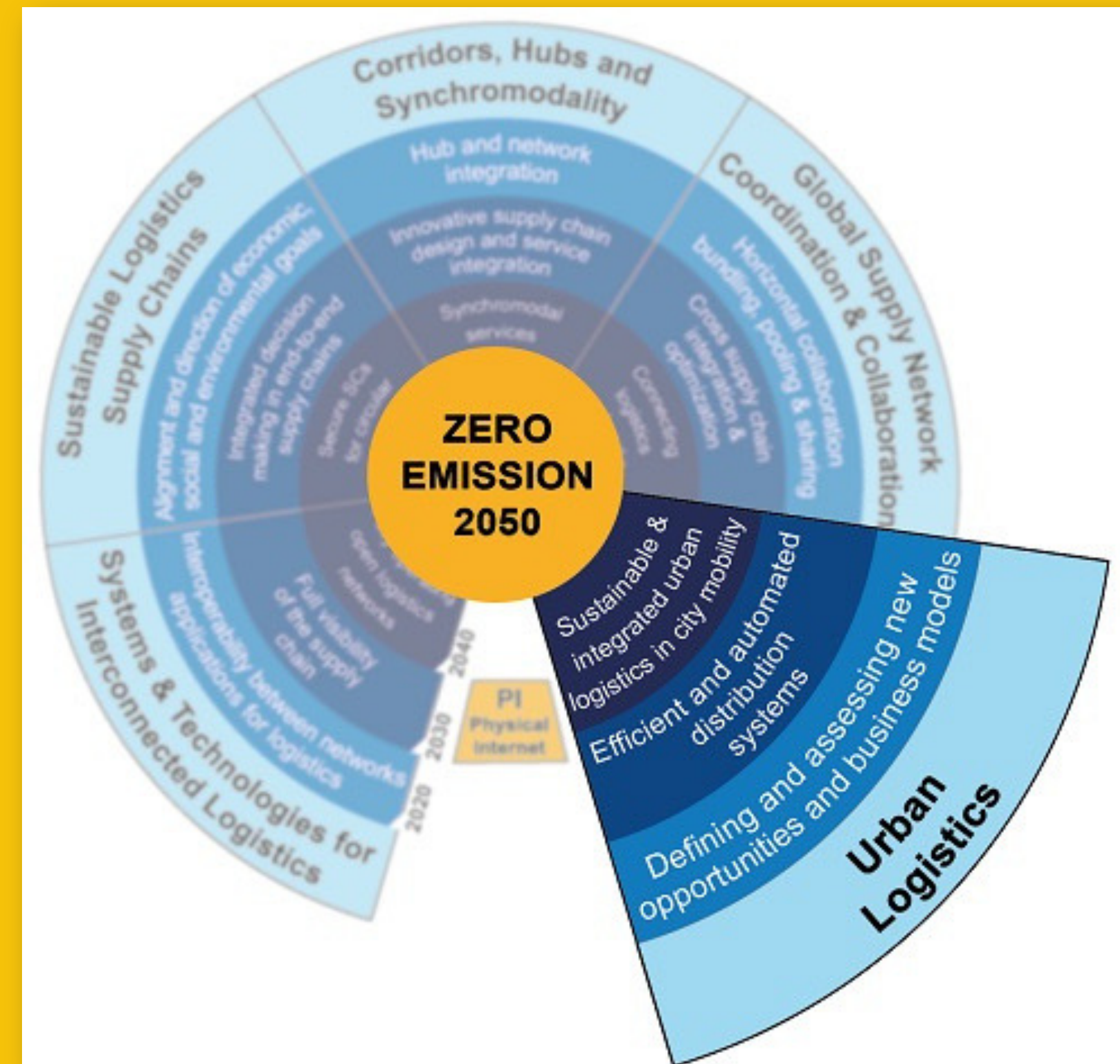
ALICE supports the implementation of the EU Programs for research e.g., [Horizon Europe](#).

It is aware on the need for an overarching view on logistics and supply chain planning and control, in which **shippers and logistics service providers closely collaborate** - also with a strategic dialogue with local authorities in case of urban logistics - to reach efficient logistics and supply chain operations.

## Vision

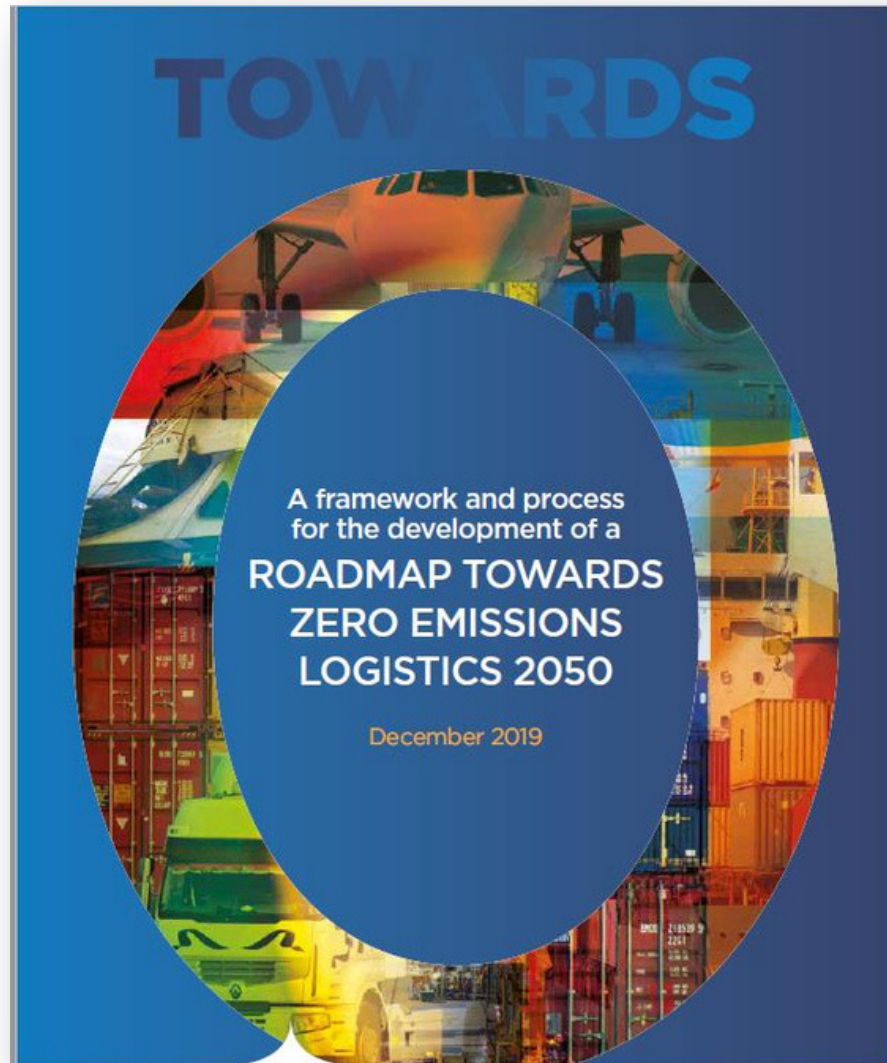
Forward looking logistics, from global to urban, will be founded on a *global open system of systems enabling assets and resources in logistics networks to be interconnected facilitating their use to the maximum capacity and productivity while increasing agility and resilience of supply chains.*

We call this vision the [Physical Internet \(PI\)](#) and it will support the affordable transition of assets towards [Zero emissions logistics](#).





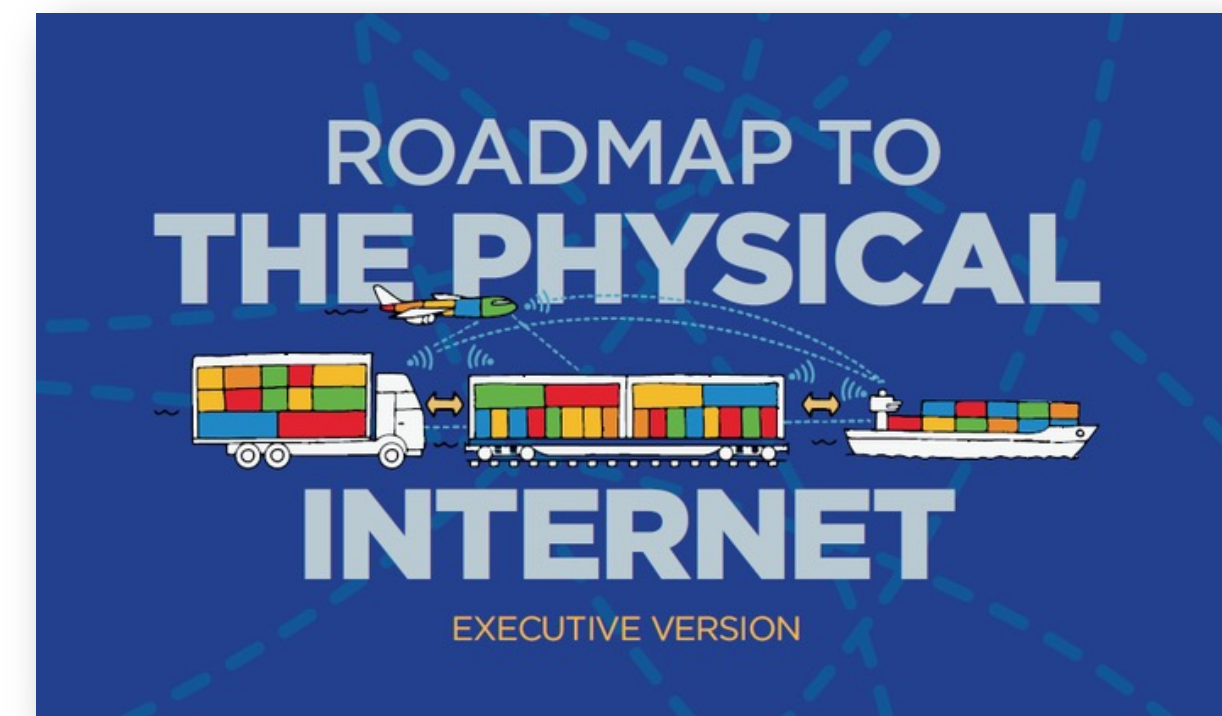
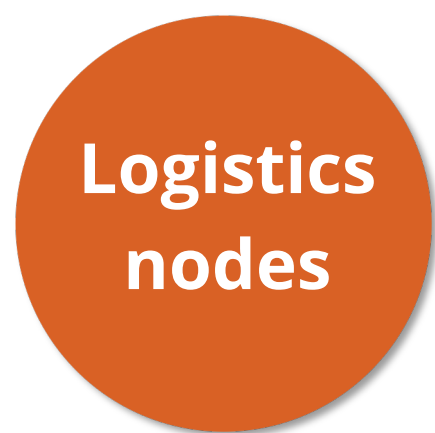
# Towards zero emissions logistics 2050 Roadmap



[Link to the document](#)



## Urban Logistics



[Link to the document](#)



# Urban Logistics Thematic Group

# alice

Alliance for  
Logistics Innovation  
through Collaboratio  
in Europe



**Charlotte MIGNE**  
*Group Sustainable Development  
Director*



**Paola COSSU**  
*C.E.O. and Shareholder*



**Hans Schurmans**  
*Logistics operations Director*

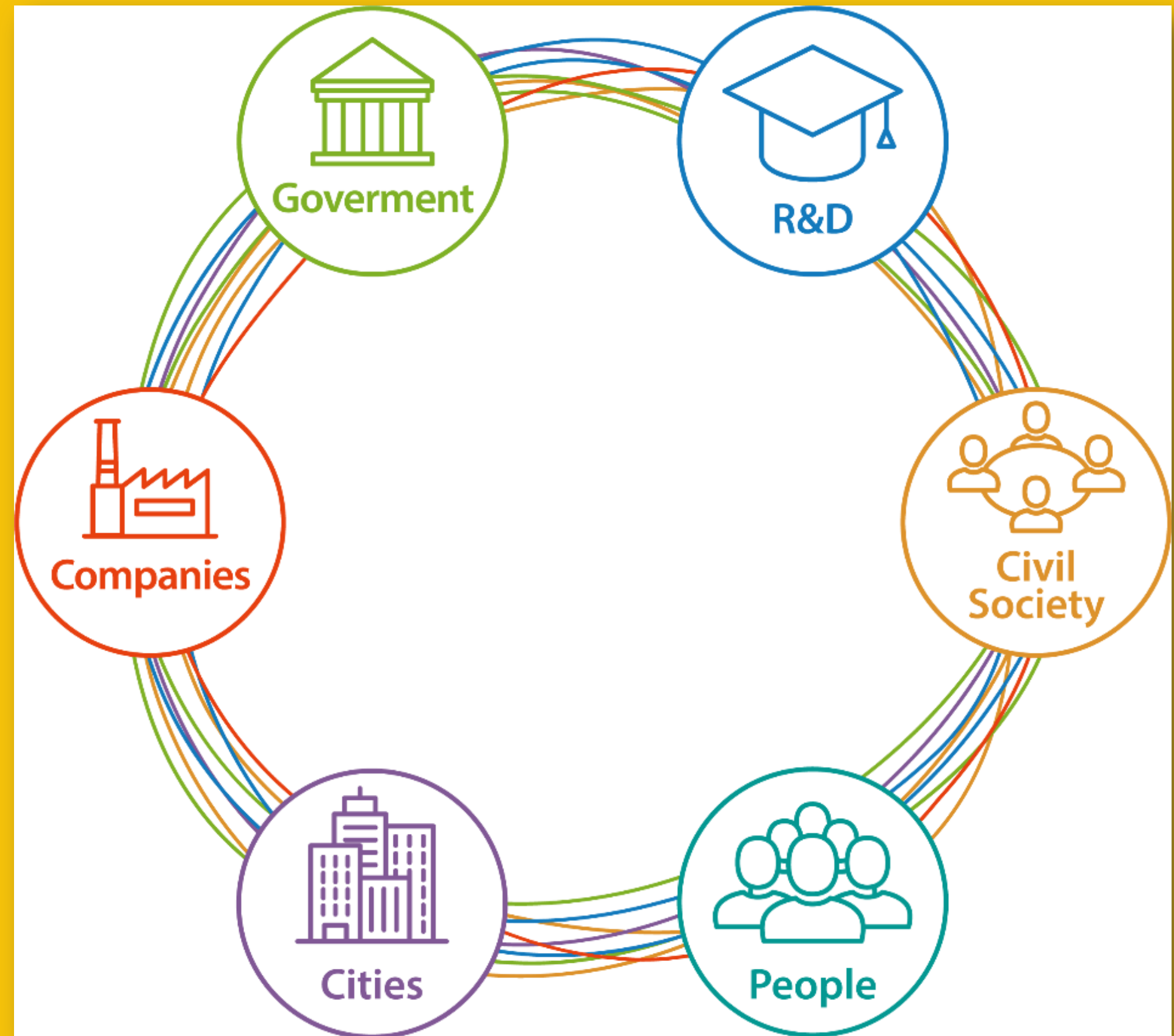


**Magnus Blinge**  
*Research Manager*





In the ALICE framework, all the stakeholders are willing to stay on the same page





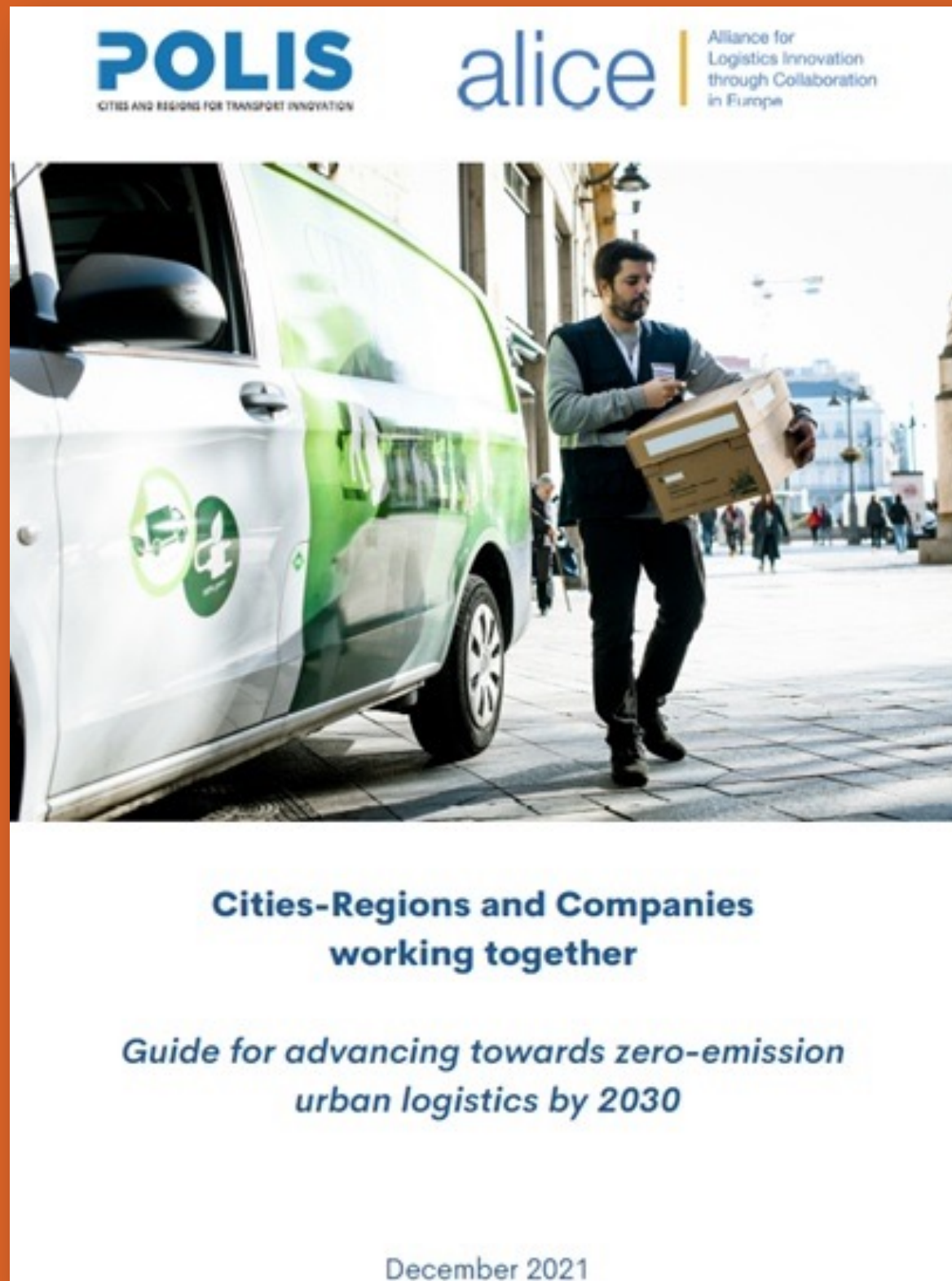
## ALICE membership is bringing an holistic approach → All key logistics stakeholders represented!

Type of Organization	Members	EU/International Associations
Shippers & Retail		
Logistics Service Providers, Courier and Postal operators & Freight Forwarders		
Ports, Hubs, Real Estate companies, Intermodal terminals & Transport Infrastructure		
Transport and industry vehicles, packaging & material handling		
Information and Communication Technologies & Consultancy		
Regional & National Logistics Clusters & Associations		
Research and technology Centers		
European Technology Platforms / PPPs		
Member States and innovation Funding*		

\*Involved in ALICE Mirror Group



# The POLIS – ALICE Joint Actionable Guideline



## Vision

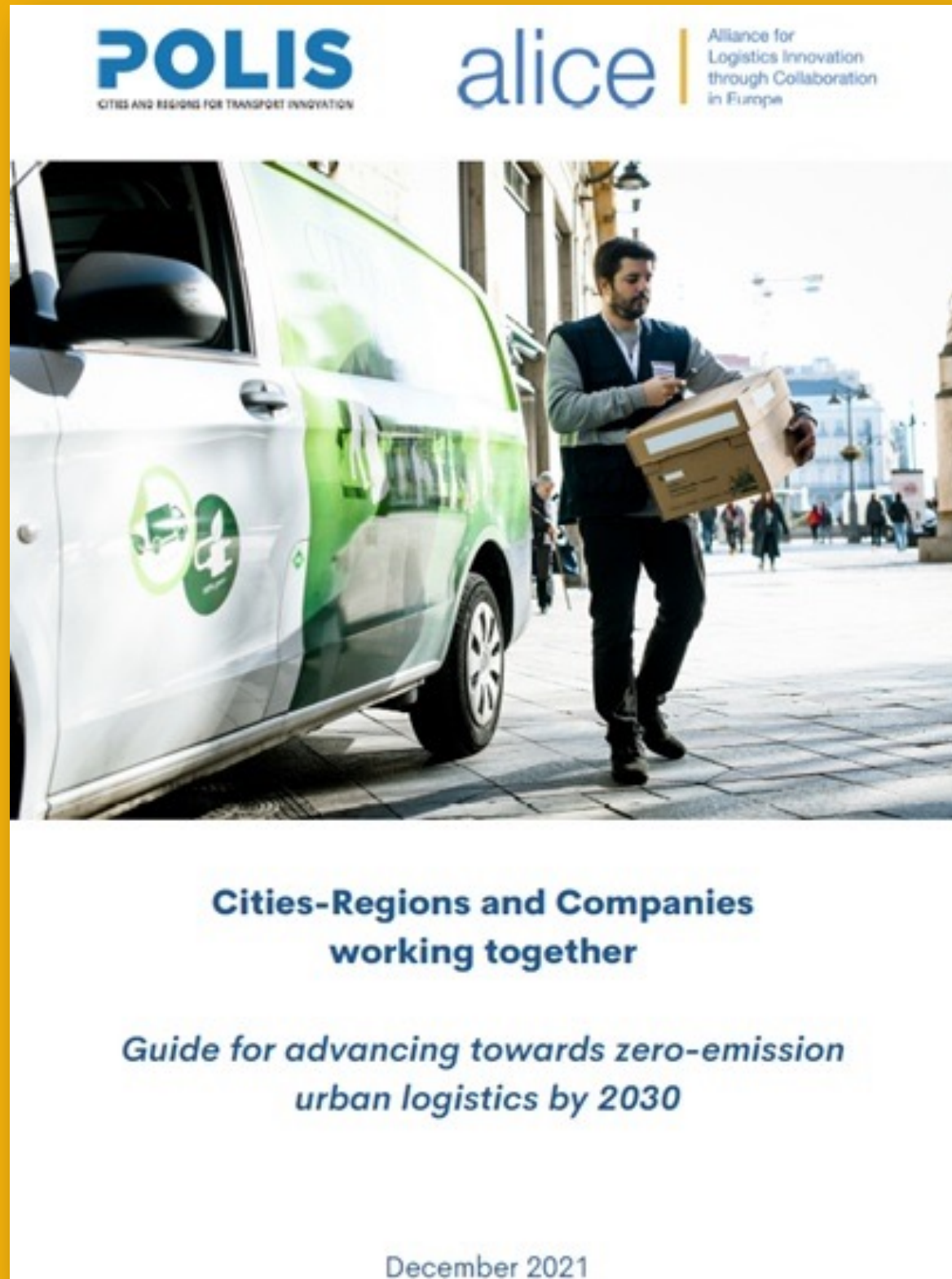
- Lead transformation in cities so urban freight
- Logistics is proactively responding to the pollution, congestion, safety and environmental challenges.

## Objectives

- Ensure a strong strategic dialogue between business & cities to share practices and facilitate collaboration
- Define common goals and build consensus to prioritize topics
- Accelerate deployment of solutions towards sustainable zero emissions urban freight and logistics



# The POLIS – ALICE Joint Actionable Guideline



## 5 intervention areas identified

- Smart governance & regulations
- Clean & alternative fleet & energy
- Logistics operations
- Purpose oriented data acquisition and sharing
- Consumer engagement

## In 2022

- Disseminate the guide and improve it
- Sharing best practices and lessons learnt
- Be informed with new initiatives
- Deepen and broaden knowledge and filling gaps
- Facilitate collaboration

# Solutions & intervention areas



## Smart governance & regulations

- Sustainable Urban Logistics Plans (SULPs) and emission reduction targets
- Measures incentivising the transition
- Smart management of access regulations and controlled speed areas
- Public Procurement of sustainable services
- Develop and manage shared spaces (curb side management)
- Co-creation with key stakeholders



## Clean & alternative fleet

- New business models for the adoption of electric/FCEV vans and trucks, cargo bikes
- Acceleration of product/vehicle development
- Energy storage and e-charging infrastructure
- Small EVs, cargo bikes and walking carrier
- Autonomous vehicles (drones and robots)



## Logistics operations

- Freight flows consolidation strategies
- Consolidation centres/hubs & micro-hubs
- Decoupling transport and delivery (Pick up points, lockers)
- Flexible time and off peak deliveries
- Workers welfare, safety and skills

## Purpose oriented data acquisition and sharing

- Embracing the value of data driven urban freight
- Establish data governance models for urban freight data
- Pan European urban freight data spaces: data sharing principle and protocols
- Achieve information-based policies and decision making
- Fast-track dynamic planning and access to urban spaces/resources



## Consumer engagement

- Increase consumer awareness
- Develop sustainable delivery choices and proper management of returns.
- Meet actual consumer expectations: Sustainability is a must!



# Overarching principles and key factors of success

## Smart governance & regulations

- Sustainable Urban Logistics Plans (SULPs) and emission reduction targets
- Measures incentivising the transition
- Smart management of access regulations and controlled speed areas
- Public Procurement of sustainable services
- Develop and manage shared spaces (curb side management)
- Co-creation with key Stakeholders

- **Local authorities need to understand the flows per type of activity** and have **skilled staff working on logistics**, so they can bring factual and objective arguments supporting measures.
- **Companies need to collaborate** and **define common needs** and concepts to be considered by local authorities.
- **Medium- and long-term plans** facilitate companies to adapt and are highly desirable
- **Courage is needed as interventions may change the dynamics of the urban logistics ecosystem.**
- The more local authorities advance in **developing consistent targets and implementing harmonized practices** (vehicle access regulation, low and zero emissions zones & vehicle access types definitions, access processes, curb side management, etc.) the **easier** will be **for companies to answer and meet the requirements.**
- **Strategic collaboration frameworks** among **cities and companies** (e.g. POLIS & ALICE) is essential. **Linking to EU countries' governments and the European Commission** is instrumental to accelerate transition.
- For any Governance or Regulation measure in place, **enforcement is key.**
- **Stakeholders' involvement is key** to ensure governance models are workable and functional.

# Overarching principles and key factors of success



## Clean & alternative fleet

- New business models for the adoption of electric/FCEV vans and trucks, cargo bikes
- Acceleration of product/vehicle development.
- Large scale deployment of energy storage and e-charging infrastructure
- Cargo bikes and walking carrier
- Drones and autonomous vehicles

- **Alternative fleet operation needs to be affordable** (TCO and RoI principles apply).
- **More intensive use of electric vehicles results in better economics than with traditional vehicles.**
- **Business models with low usage of vehicles and means may need to be restructured.**
- It is of critical importance to **address infrastructure needs for the different types of vehicles and flows.** Upgrading the electricity grid reaching the depots to ensure night recharging is feasible enables electrification at scale.
- **Small electric vehicles and cargo bikes** may increase speed and delivery quality in some segments, but it is not always the best solution.
- **Vans and trucks continue to play an important role in the system.**
- **Inland waterways could play a bigger role for city freight distribution as well as robots and drones:** they may have niche markets and be in the pool of solutions but there is **no evidence they can support the objectives mainstream.**



# Overarching principles and key factors of success



## Logistics operations

- Freight flows consolidation strategies
- Consolidation centres/hubs & micro-hubs
- Decoupling transport and delivery (Pick up points, lockers)
- Flexible time and off peak and night deliveries
- Worker 's welfare, safety and skills

- **Zero Emissions delivery solutions** (beyond vehicles) need to be **competitive in costs to be sustainable in time**
- **Consolidation and sharing must be the norm for urban freight and logistics.**
  - Support and implement **Physical Internet concepts**;
  - **Development and application of new models of collaboration** addressing different flows, B2B & B2C hybridization, multi-industries reverse flows.
  - **Companies' leadership and public support** (e.g., easing implementation, incentives, access regulations) **are essential** to implementing these models.
  - **Consolidation centers** are needed to shorten last mile delivery distances, enable consolidation and the use of low/zero emissions vehicles.
- **Decoupling transport and delivery operations**
  - **Parcel lockers, pickup points and other unattended delivery solutions** will play a central role.
  - Make use of **off-peak deliveries** as much as possible
- Possibly, **limiting quick delivery to only strict necessary goods**
- **Fragmentation of flows** (e-commerce) **and** the need to **transition to zero emission modes may boost the need for consolidation and decoupling transport and delivery.**
- **Training of drivers and ensuring responsible labour conditions are essential** to ensure eco driving and safe operations improve the environment, health and safety of citizens and workers

# Overarching principles and key factors of success

## Purpose oriented data acquisition and sharing

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- For cities, **implementing well developed information-based policies and decision-making processes should be at the core of the city's vision.**
- **Cities support** (digital and non-digital) **interaction and data sharing with companies for managing and optimizing logistics processes:** transport access regulation, curb side and traffic management, etc.
- **Companies collaborate and share information and data with cities fluently,** complying with regulations required to seamlessly arrange logistics activities: access to specific zones, delivery windows, comply with access regulations, access to loading and unloading spaces, access to traffic and city status information, etc.
- **Companies and cities jointly build and exchange experience in purpose-oriented data acquisition and sharing,** and work towards a governance model based on that experience.
- **Cities and companies collaborating in the urban domain embrace overarching and pan-European data sharing principles** and catch up with experiences and initiatives in other domains (Ports, Customs, etc.).



# Overarching principles and key factors of success

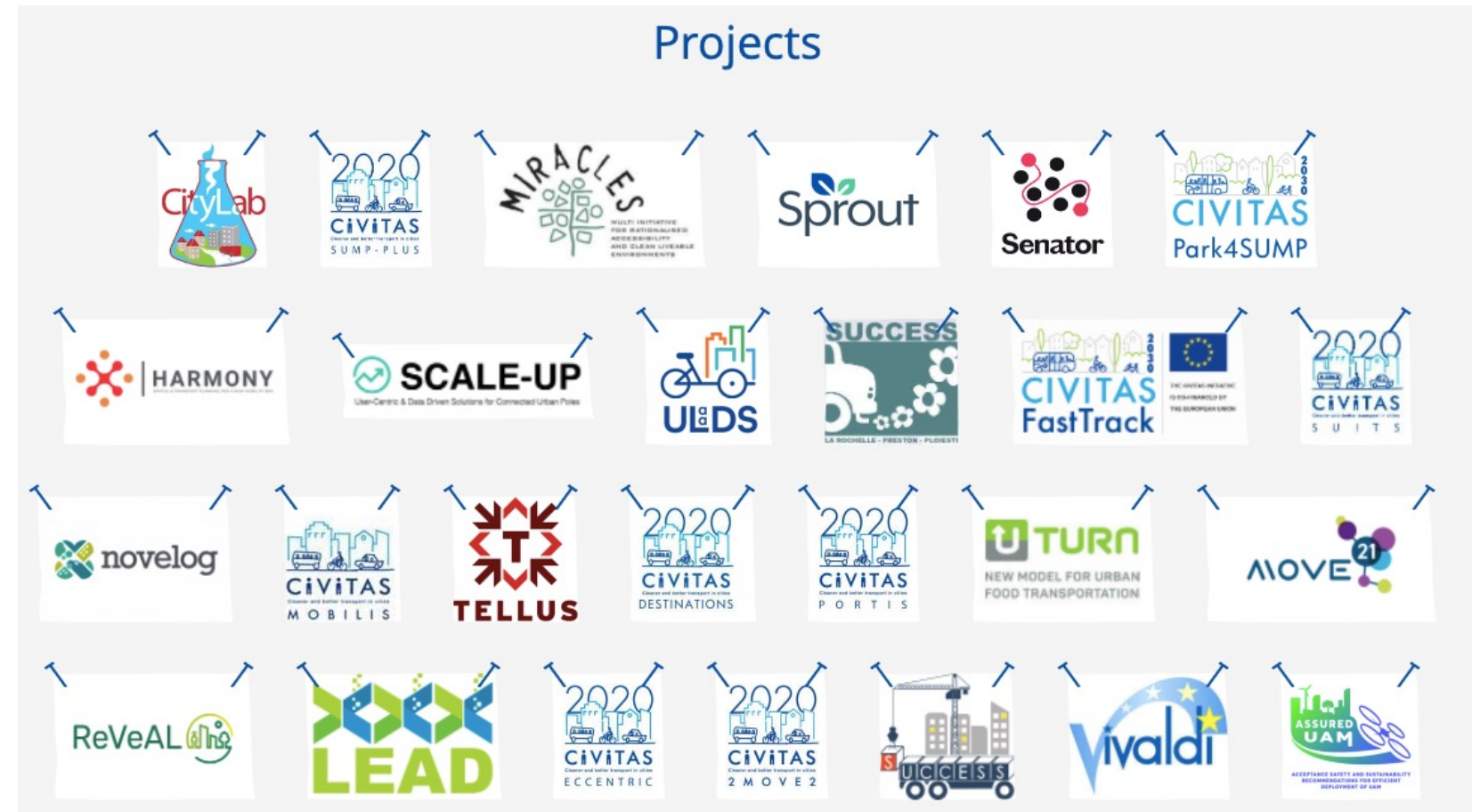


## Consumer engagement

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- Meet actual consumer expectations: Sustainability is a must!

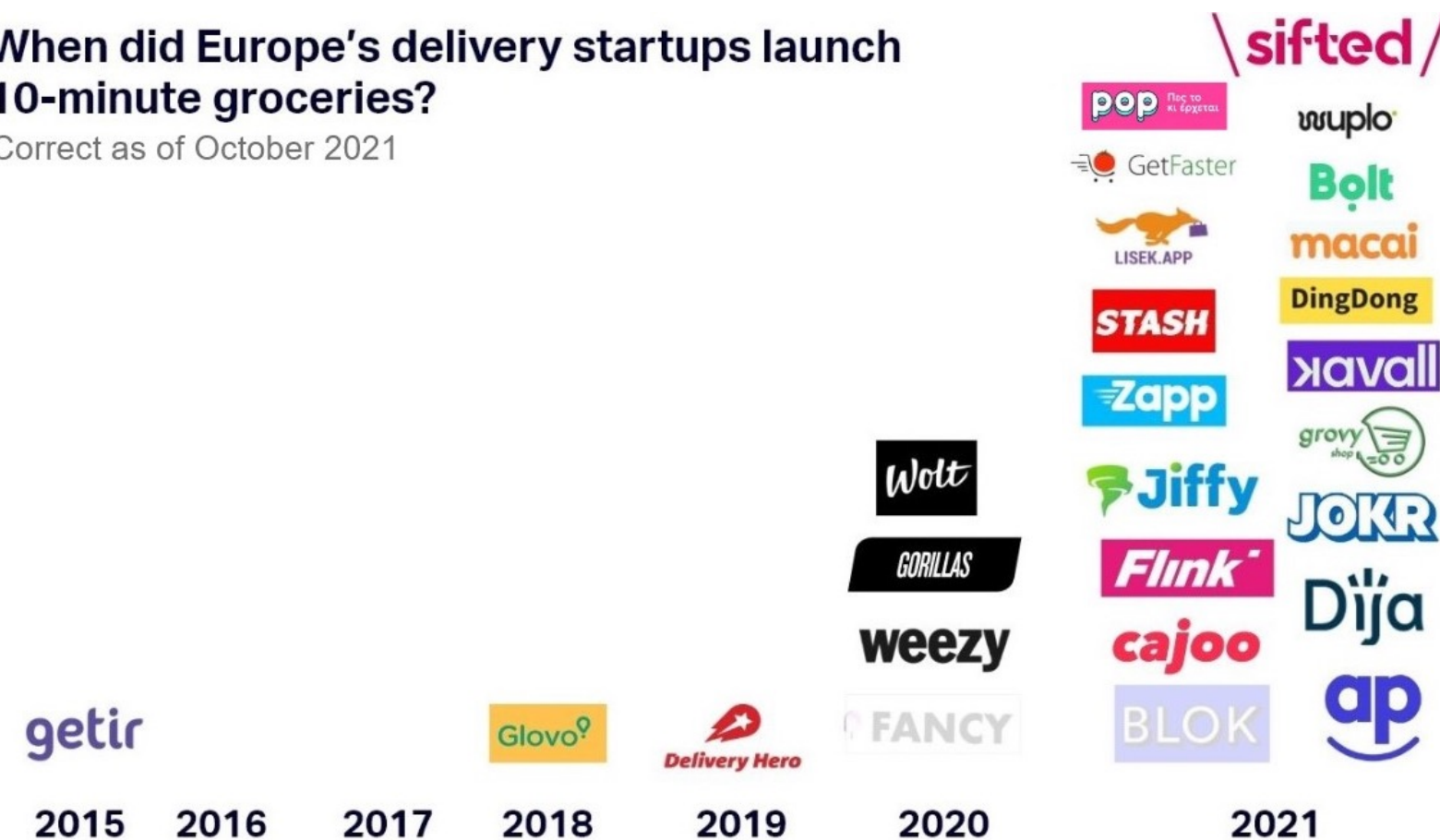
- **Price is the main factor for decision** following by **time** in terms of consumer delivery preferences.
- **Consumers do not receive sufficient information on the implications of their delivery choices in regards of sustainability.**
- **Sustainability information works.** When information on sustainability is provided, there is a positive impact on consumers decision (e.g. longer lead times have a positive impact on sustainability)
- **Retailers may positively contribute to the process by offering proper information** and providing different alternatives for urban delivery.

# The cloud of European Projects on urban logistics funded under the CIVITAS programme



## When did Europe's delivery startups launch 10-minute groceries?

Correct as of October 2021







Sustainability delivered

- **CULT** is a community of companies sharing a common vision on how sustainable city logistics can be made efficient through smart consolidation of volumes
- **Mission**  
The smart consolidation of the volumes generated by the companies of the CULT community at the periphery of the city in order to realize the Green Deal Delivery
- **Vision**  
Volume is key for an efficient and sustainable urban logistics. In order to bundle the required volume, collaboration among companies is mandatory



# CULT - the framework



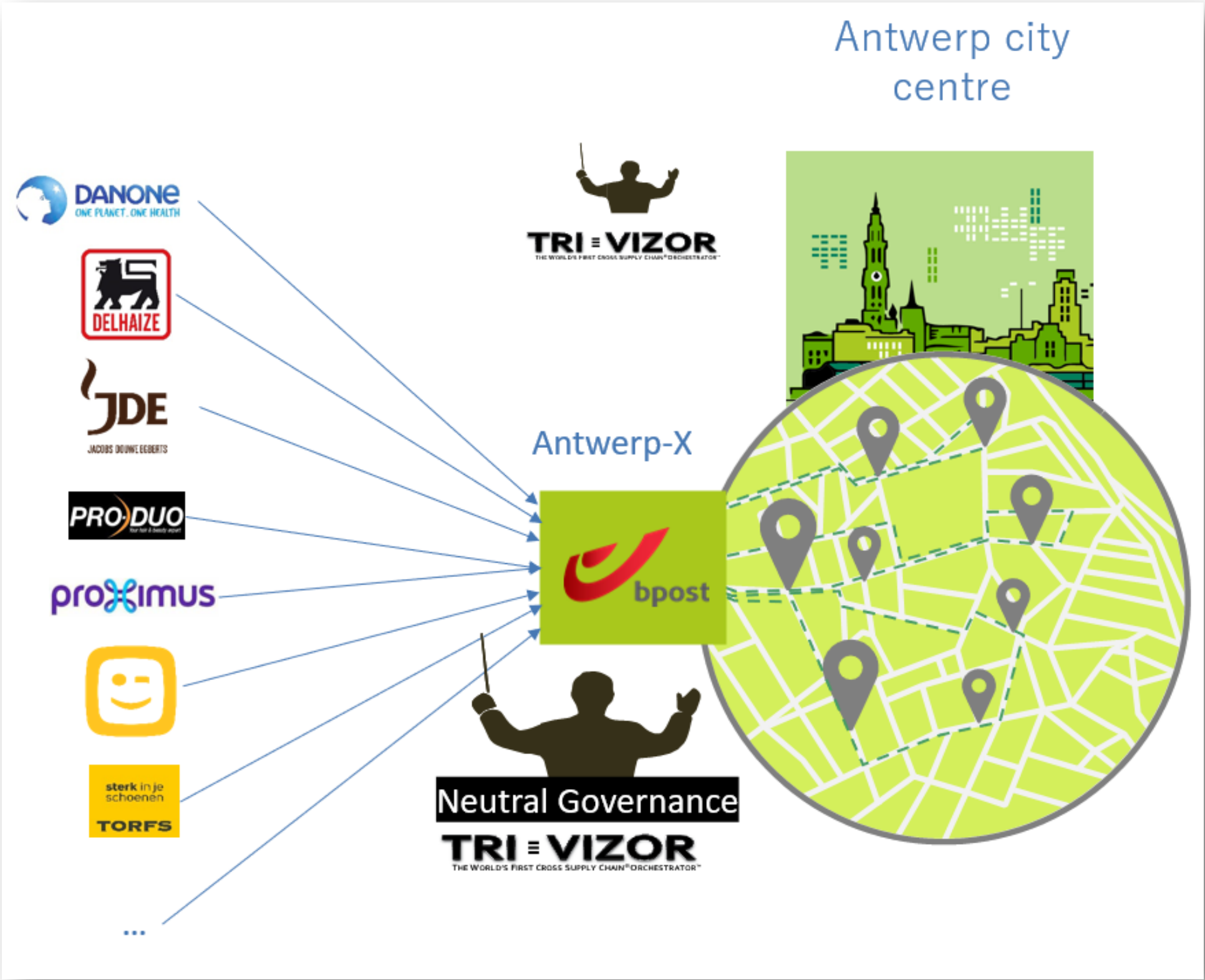
# CULT – The plan

- 1 Call for project “Stadslogistiek” (Sept '20)**
- 2 Creation of the CULT community (June '21)**
- 3 Operational start (March '22)**
- 4 Expansion (in progress)**





# CULT - Antwerp



Transforming European freight transport and logistics R&I ecosystem to perform optimally and enhance impact generated from R&I investment for contributing to sustainability and competitiveness



## BOOSTLOG

BOOSTing impact generation from research and innovation on integrated freight transport and LOGistics system



# BOOSTLOG

## Project Passport

**Title:** BOOSTing impact generation from research and innovation on integrated freight transport and LOGistics system

**Starting date:** 1 January 2021

**Duration:** 36 months

**Total funding:** 1 M€

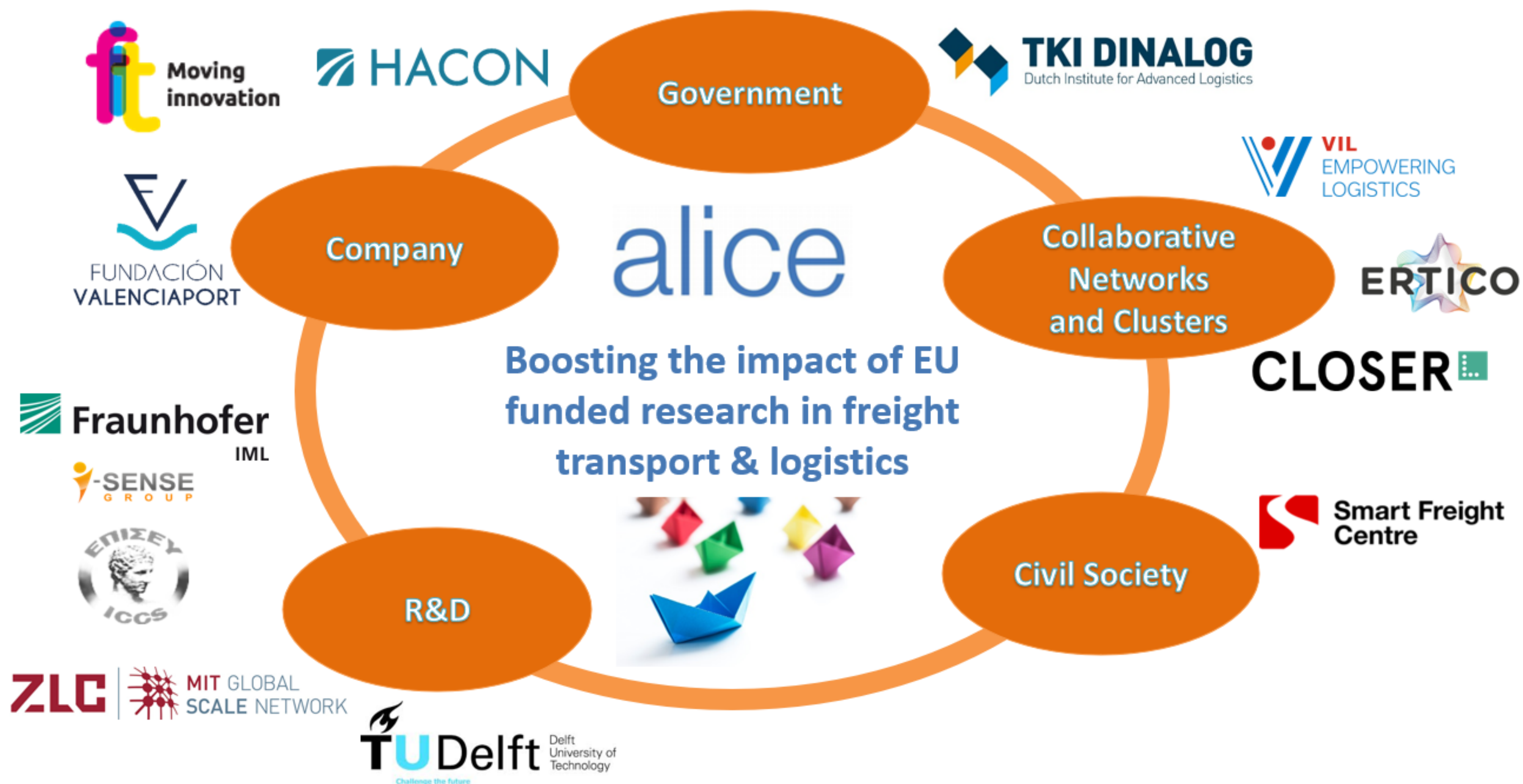
**Project type:** Coordination and Support Action

**Programme:** EU 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/>

# The BOOSTLOG Consortium



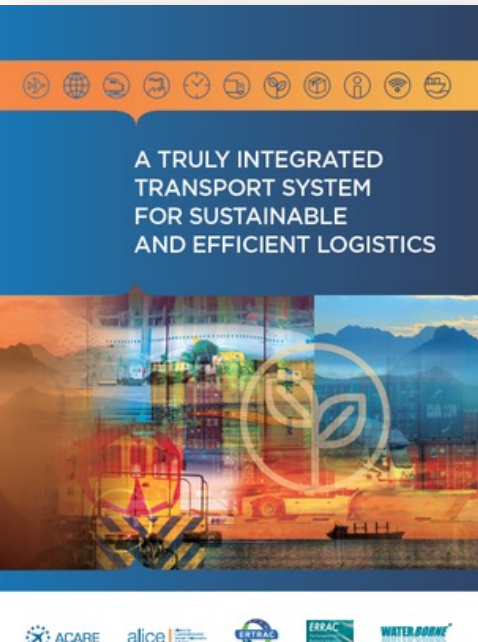


# Why BOOSTLOG?

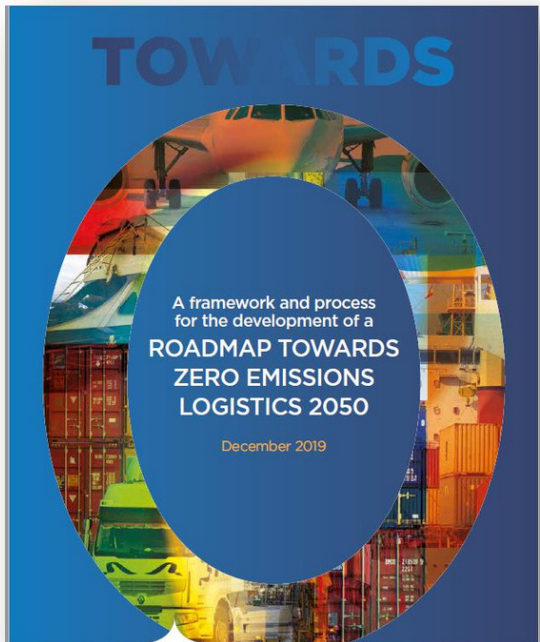
**Industry Roadmaps**



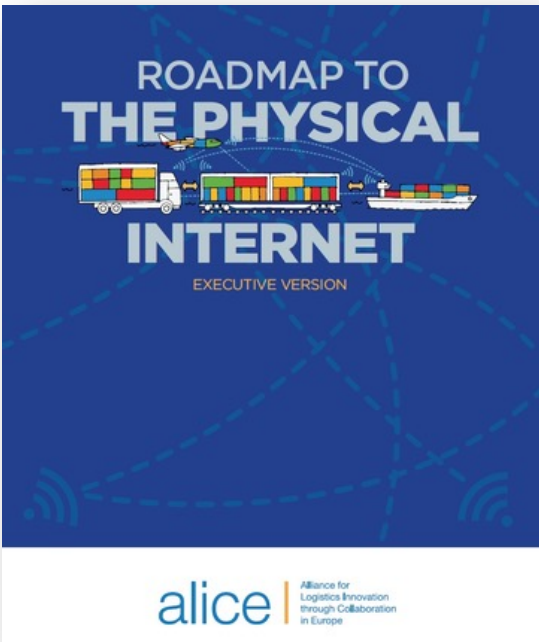
**EU Priorities**



2016



2019



2020



A European Green Deal



An economy that works for people

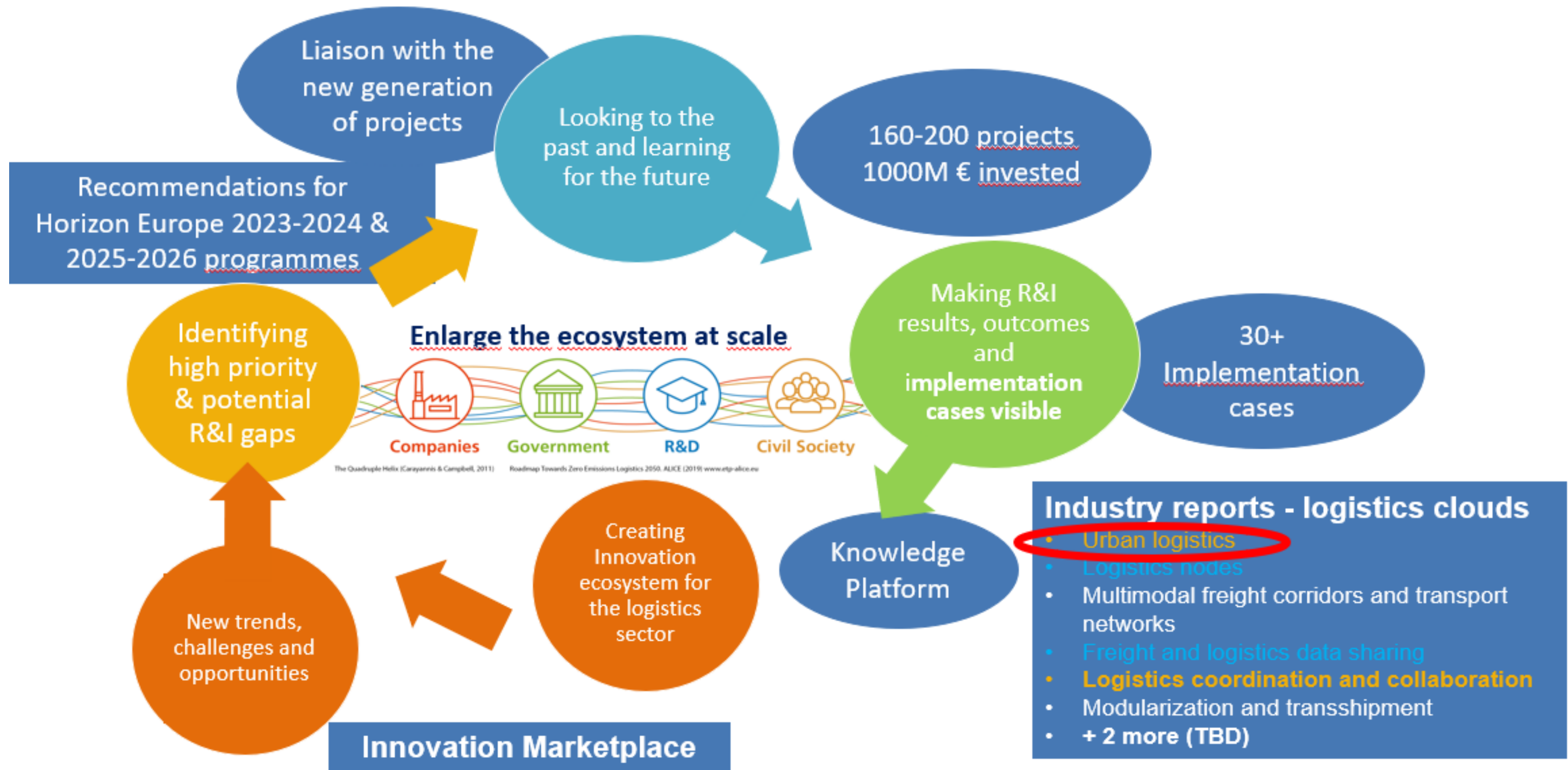


A Europe fit for the digital age



Promoting our European way of life

# BOOSTLOG in a nutshell



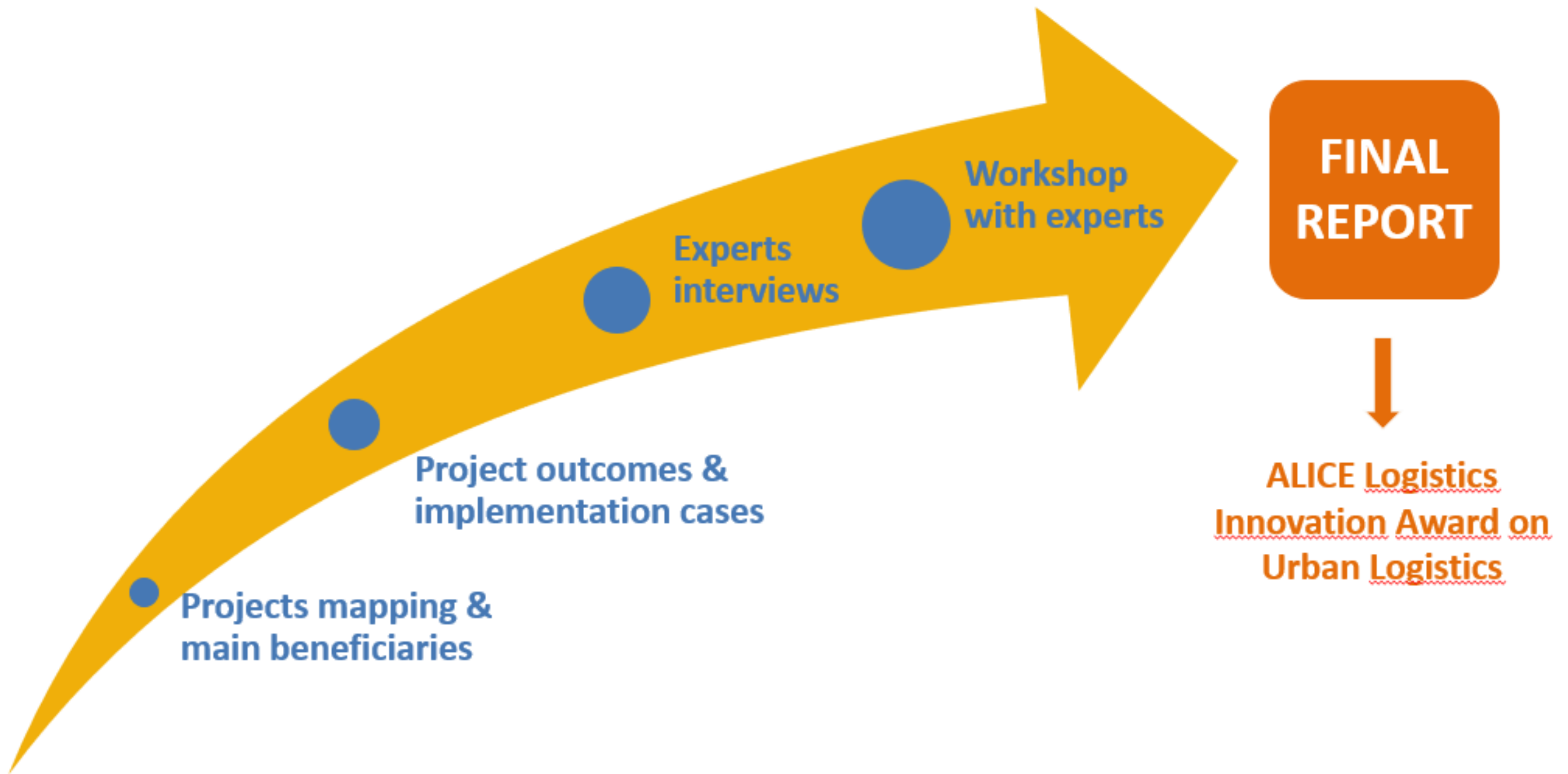


# More details on BOOSTLOG Results

- Cloud report – Coordination and Collaboration
- Barrier Assessment Framework Conditions
- Cloud report – Urban Logistics
- Valorization Strategy Guidelines v1
- Definition of high relevance topics for freight transport and logistics v1
- Gap analysis for R&I Logistics Clouds v1
- Recommendations for future R&D activities v1
- Report on Stakeholder Engagement, Dissemination, Communication

<https://www.etp-logistics.eu/boostlog/>

# Focus on Urban Logistics Cloud





# Focus on Urban Logistics Cloud

## Mapped EU R&I projects on Urban Logistics





## Logistics Innovation Award

Urban Logistics  
2022



Chair:



**Paola Cossu, CEO at FIT**

Members:



**Magnus Blinge,**  
Reserach Manager  
at SCANIA/  
Adj. Professor  
Linköping University



**Hans Schurmans,**  
Director Logistics  
operations and  
transformation at  
Proximus



**Lola Ortiz Sánchez,**  
Directora General de  
Planificación e  
Infraestructuras de  
Movilidad en  
Ayuntamiento de  
Madrid



**Massimiliano De  
Masi,**  
Innovation  
Manager, Poste  
Italiane

# Second ALICE Logistics Innovation Award

To highlight the achievements of public  
funded R&I projects on  
Urban Logistics  
Selection committee

Activities performed is part of

# BOOSTLOG

Received funding from European Union's Horizon 2020 research and  
innovation Programme under grant No 101006902

# Focus on Urban Logistics Cloud

		Winner	
Categories	Type	Winner organisation	Achievements
Companies	Gold	UPS	UPS has successfully scaled up solutions developed by the project and delivered positive impacts on climate action. The combination of various technologies, e.g. electric vehicles, charging infrastructure, and energy storage has enabled an integrated solutions that resulted in approximately 65% of emission reduction. Therefore, the jury decided to give the GOLD award to UPS.
	Silver	WISEVA-W – PTV	The WISEVA-W module was developed by the MOSCA project for logistics operation in cities. PTV has been able to integrate the module with VISUM model for traffic assignment, helping transport planners in conducting traffic analyses for cities and optimising the overall transport system. We then present the SILVER award to PTV for its achievements.
Cities/Local authorities	Gold	Padova (Cityporto)	The city has demonstrated an public-private initiative that has facilitated data exchanges and partnerships, contributing to emission reduction (approximately 1.891 Tons since its operation), setting an excellent example of using innovation for city climate action. For this achievement, Padova deserves the Gold award for this Urban Logistics Innovation Award.
	Silver	Rome Logistics Living Lab	The Logistics Living Lab, established by the CITYLAB project is a participatory co-creation laboratory that aims to systematically involve public and private actors of city logistics in Rome to carry out innovative and shared projects, in order to support the implementation of the freight-related measures included in the Sustainable Urban Mobility Plan of Rome. It has set an excellent example of engaging stakeholders and citizens to co-create policies for their own cities. Therefore, we give the Silver Award.
		The Region of Emilia Romagna (Permit to LTZ)	Through the NOVELOG Project, the pilot carried out in the Region of Emilia Romagna had the objective to simplify and harmonise the administrative rules for city logistics at regional level in relation to the management of the permissions of freight vehicles to access the urban Restricted area (LTZ). Following the harmonization process, the Region since 2013 has standardized the rules (e.g. access time windows for vehicles over 3.5 tons) and the criteria for issuing permits for logistics operators.
Civil Society	Transport decarbonisation Alliance for Declaration of Intent		Transport Decarbonisation Alliance has raised awareness to a wider range of stakeholders, thus developing market and influencing national policies in EU member states. Therefore, we are delighted to present the Civil Society Award to Transport Decarbonisation Alliance.
Special Achievement	European Commission		The Sustainable Urban logistics Planning- Sulp Topic Guide was developed in the framework of the HORIZON 2020 NOVELOG project. The European Commission has been promoting the Guide and supporting many cities in Europe to develop their Sulp. ). EC has successfully implemented R&I project outcomes and developing policy framework to enable EU wide scalability that have advanced sustainable urban logistics. This has embedded urban logistics in decision making for cities. The Sulp Topic guide was also one of the documents communicated in the context of the EU-USA collaboration activities for city logistics (2019). Therefore, we give this special achievement award to the European Commission, and great thanks to Dr. Georgia Ayfantopoulou, who was the project leader of the NOVELOG project.



## Lessons learnt

- The most critical issue to implement urban logistics initiatives and policies is the **lack of relevant data** for urban logistics.
- There are very **few cities collecting data** that can help define the state of the art of urban logistics practices, preventing on one hand local authorities from having **evidence of the problems and externalities** resulting from urban logistics, and on the other hand operators from having **visibility of the progress and improvements** achieved by adopting new innovative solutions for the performance of their services.
- **Poor involvement of the industry** and the market players. Although these actors are formally involved in several R&D projects on urban logistics, the approach of these projects **does not appear to be sufficiently market-oriented**. This hinders the commitment of urban logistics operators who do not see their priorities reflected in the initiatives and policies adopted by local authorities. It also hinders the transferability of the best practices tested in other cities.

### Prospect success factor: collaboration between private & public stakeholders

- **Alignment on challenges in the city**
- **Industry priorities to be identified, supported and integrated into policy making**
- **Data sharing and collection with trust (on a regular basis) - data for smarter use of urban space**

Thanks!



**Paola Cossu**  
**[cossu@fitconsulting.it](mailto:cossu@fitconsulting.it)**

