

Workshop LOGÍSTICA NA ÁREA METROPOLITANA DE LISBOA E SOLUÇÕES A PROMOVER

Main trends, policies and opportunities for urban logistics

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ALICE



16 November 2021

Content

Short intro on ALICE

Main trends/challenges influencing (urban) logistics

European Policies: Green Deal, Smart Mobility Strategy and Urban Logistics vs AML study

Collaboration is Key - Dialogue between local authorities and cities: The POLIS & ALICE example

Opportunities in the European arena



Who is ALICE

ALICE = Alliance for Logistics Innovation through Collaboration in Europe

ALICE A.I.S.B.L., a **not-for-profit association**, registered in Brussels, since 2015

Organizations as members of ALICE and in Portugal

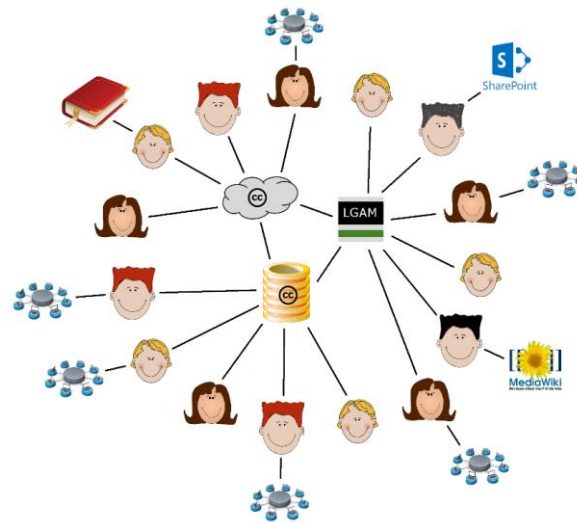
ALICE membership is bringing an holistic approach → All key logistics stakeholders represented!

Type of Organization	Members	EU/International Associations
Shippers & Retail	P&G, L'ORÉAL, proffimus, Atlas Copco, HOFER, COLRUYTGROUP, Unilever	ESC, cefic, ELUPEG, GS1
Logistics Service Providers, Courier and Postal operators & Freight Forwarders	Gebrüder Weiss, GEODIS, BORUSAN LOJISTIK, FM LOGISTIC, Posteitaliane, sender, GRUBER LOGISTICS, an post, ups, LINEAS, MULTILOG, CHEP, TRI VIZOR, CODIGNOTTO, Sesé, bpost	CLECAT, ECG, EALTH
Ports, Hubs, Real State, Intermodal terminals & Transport Infrastructure	Port of Rotterdam, INTERPORTO BOLOGNA, JLL, GENERAL, ECO SLC, Port de Barcelona, Puerto de Algeciras, duisport, De Vlaamse Waterweg	INE, European IWT Platform, TEPORT
Transport and industry vehicles, packaging & material handling	VOLVO, SCANIA, TEVVA, PONERA, LOGIFRUIT, KION	eucar
Information and Communication Technologies & Consultancy	MARLO, logsea, VISMA, BIMAR, interlogistic, TRAXEN, RIFA, IDOM, NIXMOVE, HAACON, PTV GROUP, TRANSPOREON, vltm, URBAN RADAR	ERTICO, LEAN & GREEN
Regional & National Logistics Clusters & Associations	vni, CLOSER, CESMAD BOHEMIA, AirCargoBelgium, Logistop, POM, ALIA, MARLOG	Smart Freight Centre
Research and technology Centers	Fraunhofer, IFF, ITENE, CATAPULT, BIBA, LIG, CIRCOE, TU Delft, TNO, tci, imec, howest, IDIT, MIV	ectri, ELA, EUROPEAN LOGISTICS ASSOCIATION
European Technology Platforms /PPPs	WATERBORNE, ERRAC, ERTRAC, EFFRA, MANUFACTURE-EU	
Member States and innovation Funding*	Department for Transport, TKI DINALOG, VIANDEREN, bmvi, VINNOVA	

* Involved in ALICE Mirror Group



INNOVATION



KNOWLEDGE



European leading companies and experts implementing
logistics and supply chain innovation

New concepts – knowledge management – collaboration – influence
acceleration



TG 1

Sustainable Logistic
Supply Chains/
Efficient and Low
Emissions Assets
and Energy

TG 2

Corridors, hubs
and synchro-
modality

TG 3

Systems and
Technologies for
Interconnected
Logistics

TG 4

Global Supply
Network
Coordination &
Collaboration

TG 5

Urban
Logistics

Influence

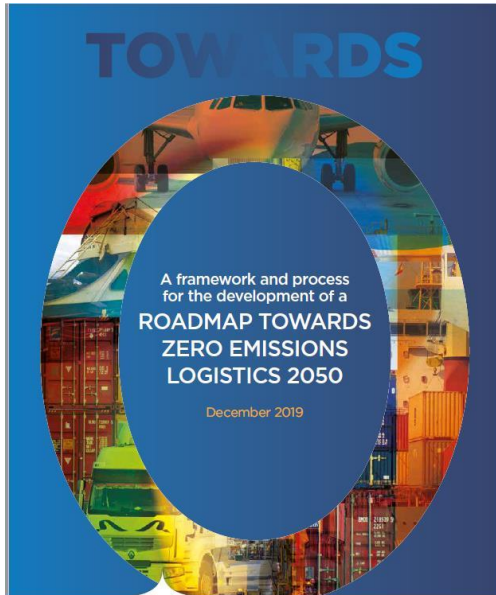
Development of Roadmaps and Position Papers & Outreach Promotion of Publishedd Roadmaps
→ Influence EC, Member States, Cities and Industry

Knowledge

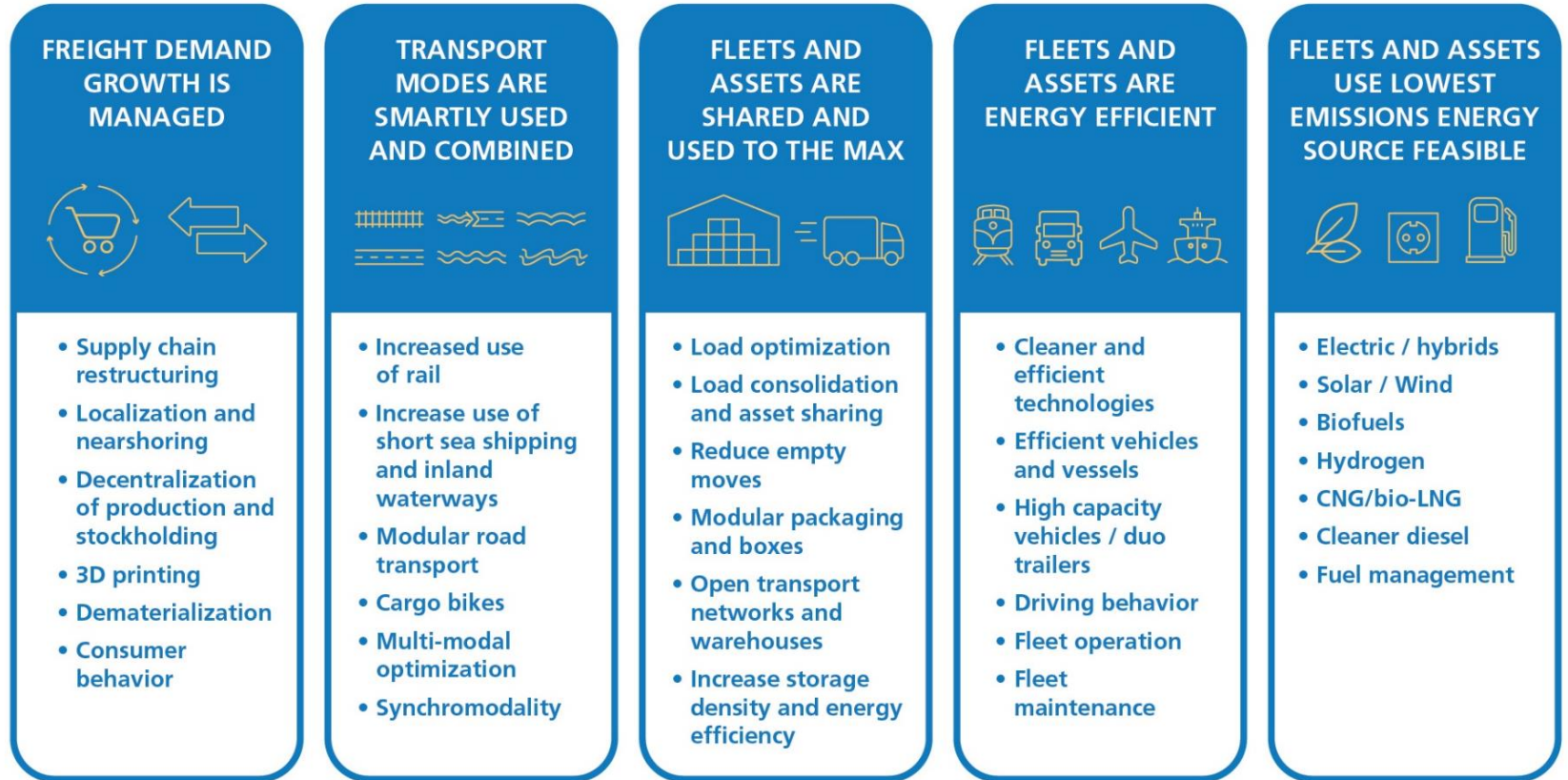
Knowledge Management and Sharing: Liaison with projects and members initiatives, Webinars, Workshops, Monitoring Progress & Roadmaps Implementation, Knowledge Platform

Collaboration

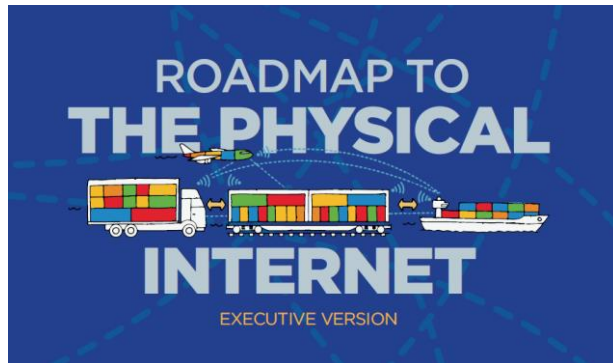
Support collaboration between members: Networking, Promotion of Funding Calls, Collaborative Research



[Link to the document](#)



© Smart Freight Centre and ALICE-ETP based on A. McKinnon 'Decarbonizing Logistics' (2018) Roadmap Towards Zero Emissions Logistics 2050. ALICE (2019) www.etp-alice.eu



[Link to the document](#)



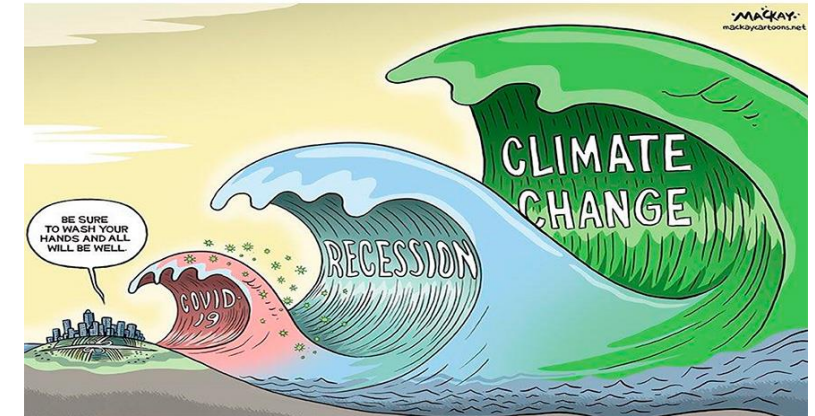
Additional focus needed



Current focus

Making assets transition affordable!

- **Environment & Climate Change** → How to reduce emissions by 50 if not 55% by 2030¹ in an economically feasible way?
- **Circularity** → How to phase out single use packaging/single use products and reduce waste → Circular supply chains?
- **Agility** → How to be able to react in changes in demand and live in a continuous black Friday?
- **Resilience** → How to react or be resilient by design against disruptions (climate, terrorism, heath, etc.)?



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¹EU Green Deal: https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal_en

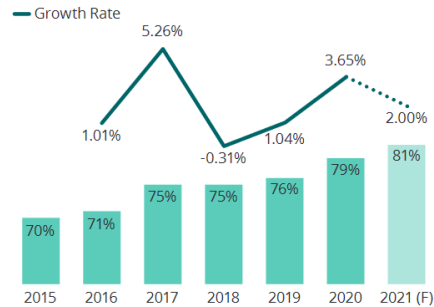
PORTUGAL E-commerce

CHARTS

► Currency: Euro ► VAT: 23%

INTERNET USAGE

Percentage of the population accessing the internet

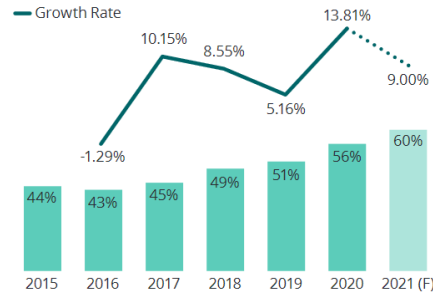


SOURCE: EUROSTAT

Source: [2021 EUROPEAN E-COMMERCE REPORT – Ecommerce Europe](#)

E-SHOPPERS

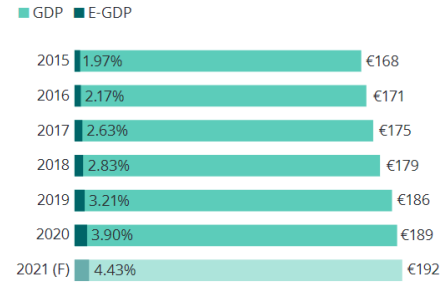
Percentage of internet users that bought goods or services online



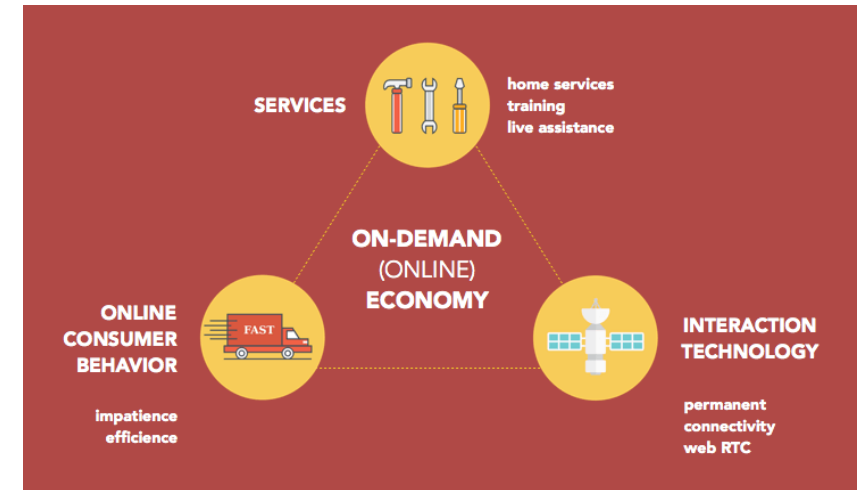
SOURCE: EUROSTAT

GDP AND E-GDP (EUR, BN)

The Gross Domestic Product (GDP) in €Billion and the percentage of GDP comprised of e-commerce sales



SOURCE: IMF



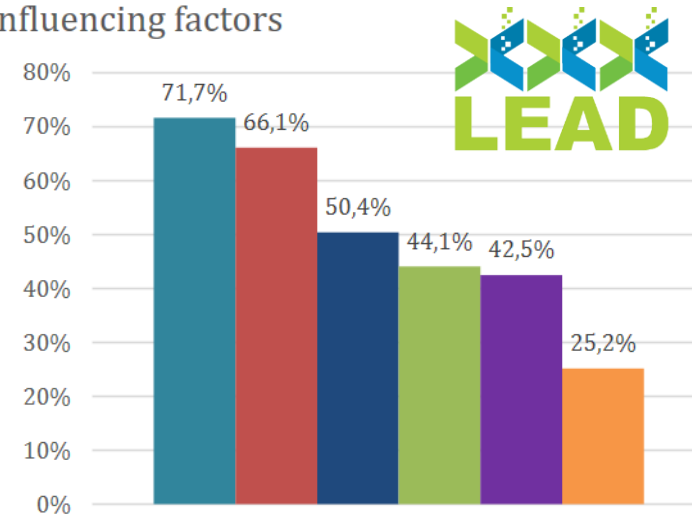
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most influencing factors

- New technologies
- Consumer requirements
- Economy and demographics
- Ecology and social responsibility
- Corridors, nodes and space
- Covid 19



Source: LEAD Project (2021) "Main Challenges, trends and factors influencing city logistics" https://www.leadproject.eu/wp-content/uploads/2021/02/LEAD_D1.1_City-Logistics-landscape-in-the-era-of-on-demand-economy-1.pdf



A European Green Deal

Europe aims to be the **first climate-neutral continent** by becoming a modern, resource-efficient economy.



A Europe fit for the digital age

The **EU's digital strategy** will empower people with a new generation of technologies.



An economy that works for people

The EU must create a **more attractive investment environment**, and growth that creates **quality jobs**, especially for young people and small businesses.



A stronger Europe in the world

The EU will strengthen its voice in the world by championing multilateralism and a rules-based global order.



Promoting our European way of life

Europe must protect the rule of law if it is to stand up for justice and the EU's core values.



A new push for European democracy

We need to give Europeans a bigger say and protect our democracy from external interference such as disinformation and online hate message

Green Deal

09/12/2019

- Growth strategy and ambition towards a climate neutral Europe by 2050

Sustainable and Smart Mobility Strategy

09/12/2020

Climate Law

30/06/2021

- Legal obligation of at least **55% reduction in GHG emissions by 2030** (compared to the 1990 levels)
- Legal obligation of **climate neutrality by 2050**
- Across Member States & sectors

Fit For 55 Package

14/07/2021

- Delivering on the Green Deal: cost efficiency & fairness
- 13 interconnected legislative proposals covering **climate, energy & fuels**, land use and forestry, **transport**, buildings & social funding to reach a net reduction in GHG emissions of at least 55% by 2030


Efficient and Green Mobility Package

14/12/2021



Urban mobility and logistics in the Strategy

FLAGSHIP 3 – Making interurban and urban mobility more sustainable and healthy
 FLAGSHIP 4 – Greening freight transport

 **Multimodal logistics must be part of this transformation.** SUMP should also include the freight dimension through dedicated **sustainable urban logistics plans**, to accelerate the deployment of zero-emission solutions already available, including cargo bikes, automated deliveries and drones and better use of inland waterways into cities.

 **Boosting the uptake of zero-emission vehicles** in corporate and urban fleets. In addition, the European Green Deal calls for a substantial part of the 75% of **inland freight** carried today by road **to shift to rail and inland waterways**.





Source: [European Commission, ALICE and POLIS Consultation workshop on the new EU Urban Mobility Initiative: Urban freight transport and logistics](#)

“ESTUDO SOBRE A EVOLUÇÃO DA LOGÍSTICA NA ÁREA METROPOLITANA DE LISBOA E SOLUÇÕES A PROMOVER”

CENÁRIO DE FUTURO SELECIONADO

PLANEAMENTO ESTRATÉGICO E REGULAMENTAÇÃO  SOLUÇÕES DE INFRAESTRUTURA  FOCO NO AMBIENTE

Planeamento estratégico para a logística a nível metropolitano e municipal	Resolução de algumas limitações da rede ferroviária e do canal fluvial	Valorização das boas práticas em termos ambientais, no setor dos transportes
Homogeneização de regulamentos municipais de cargas e descargas	Abastecimento de frescos centralizado a norte e a sul, articulado com os mercados municipais para distribuição local	Incentivos à eletricidade verde
Regulamentação de planos de logística urbana em todos os municípios	Crescimento do e-commerce apoiado nas plataformas globais, mas com o aparecimento de plataformas locais	Incentivos à descarbonização das frotas dos pequenos operadores e lojistas
Estratégia integrada para o desenvolvimento das tecnologias verdes	Evolução do processo iniciado com a JUL para a integração plena dos movimentos no <i>hinterland</i>	Maior participação dos agentes logísticos nas soluções de coexistência da logística no espaço público
Articulação entre planeamento público e iniciativas dos privados		Agentes logísticos privados alavancam ações ambientalmente sustentáveis
Estímulo à responsabilidade social dos agentes		

 Economia  Ambiente  Política  Tecnologia



3 Urban freight transport and logistics in UMF

WHY? Objective: Support cities in achieving carbon-neutral logistics, focusing on TEN-T urban nodes

Ambition (tbc): reaching zero emission delivery in urban nodes (above 100 000 inhabitants) by 2030 / aim for 2040 in other (medium/bigger) EU cities

WHAT? *Tentative content of the proposal*

- Support the uptake of **Sustainable Urban Logistics Plans (SULPs)**
- Support the development of **multimodal (micro)consolidation centres / freight routes** to facilitate esp. the first/last mile logistics and connect to the long haul cargo networks (TEN-T)
- Improve urban logistics **data provision** (loading zones/multimodal urban freight network/routing optimisation)
- Raise the need to **standardise data exchange** with (big) **platforms on urban supply chain** to facilitate groupage of (e-commerce) deliveries
- Accelerate the **uptake of new/innovative delivery methods** (cargo bikes, LEFVs, drones etc.) and business/operating models to green the last mile

HOW?

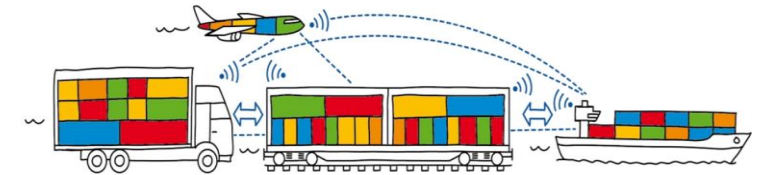
- In the Urban Mobility Framework **Communication** and **Staff Working Document**
- In **TEN-T revised regulation**: Urban nodes > 100,000 on TEN-T adopt a dedicated urban logistics plan (SULP) (+ recommend for other cities)
- In **funding programmes**, e.g. ESIF, Horizon Europe, Connecting Europe Facility
- In actions planned in the **Green Cargo flagship**
- In DG **CLIMA**: internationalisation of external costs

“ESTUDO SOBRE A EVOLUÇÃO DA LOGÍSTICA NA ÁREA METROPOLITANA DE LISBOA E SOLUÇÕES A PROMOVER”

ALICE VISION: freight transport and logistics is climate neutral and zero emission. Physical Internet paves the way to achieve this transition in an affordable way

THE PHYSICAL INTERNET

Interconnected logistics networks, sharing assets and capabilities



CENÁRIO DE FUTURO SELECIONADO

PLANEAMENTO ESTRATÉGICO E REGULAMENTAÇÃO	SOLUÇÕES DE INFRAESTRUTURA	FOCO NO AMBIENTE	APOSTA NA ECONOMIA PARTILHADA	DESENVOLVIMENTO TECNOLÓGICO E ORGANIZACIONAL
Planeamento estratégico para a logística a nível metropolitano e municipal	Resolução de algumas limitações da rede ferroviária e do canal fluvial	Valorização das boas práticas em termos ambientais, no setor dos transportes	Pequenos operadores logísticos com dificuldade em permanecerem no mercado	Formação e capacitação dos agentes da logística para melhoria da qualidade e eficiência
Homogeneização de regulamentos municipais de cargas e descargas	Abastecimento de frescos centralizado a norte e a sul, articulado com os mercados municipais para distribuição local	Incentivos à eletricidade verde	Incentivos ao pequeno comerciante para aderir à economia partilhada	Gestão eficaz dos processos de abastecimento, apoiando escolhas dos operadores logísticos
Regulamentação de planos de logística urbana em todos os municípios	Crescimento do e-commerce apoiado nas plataformas globais, mas com o aparecimento de plataformas locais	Incentivos à descarbonização das frotas dos pequenos operadores e lojistas	Apoio a comerciantes e retalhistas para adoção de uma cultura de partilha e colaboração, promovendo as práticas colaborativas entre agentes, com soluções eficientes e não poluentes	Programa de aceleração da conversão tecnológica por agentes públicos e privados
Estratégia integrada para o desenvolvimento das tecnologias verdes	Evolução do processo iniciado com a JUL para a integração plena dos movimentos no hinterland	Maior participação dos agentes logísticos nas soluções de coexistência da logística no espaço público	Criação de plataformas colaborativas que permitam o desenvolvimento de redes de abastecimento local, com recurso à digitalização	Efetiva monitorização do sistema logístico nacional/regional e urbano
Articulação entre planeamento público e iniciativas dos privados		Agentes logísticos privados alavancam ações ambientalmente sustentáveis		Automatização de parte dos sistemas logísticos
Estímulo à responsabilidade social dos agentes				Aumento da eficiência do processo de consolidação de mercadorias por agentes



ALICE Urban Logistics TG leadership team and strategic Dialogue with POLIS

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Logistics Innovation
through Collaboration
in Europe

POLIS

CITIES AND REGIONS FOR TRANSPORT INNOVATION



Charlotte MIGNE
Group Sustainable
Development Director



Paola COSSU
C.E.O. and Shareholder



Magnus Blinge
Research Manager



Hans Schurmans
Logistics operations Director



Lola Ortiz Sanchez
Directora General de
Planificación e Infraestructuras
de Movilidad en Ayuntamiento
de Madrid



Giacomo Lozzi
Senior Project Manager -
Coordinator Urban Freight

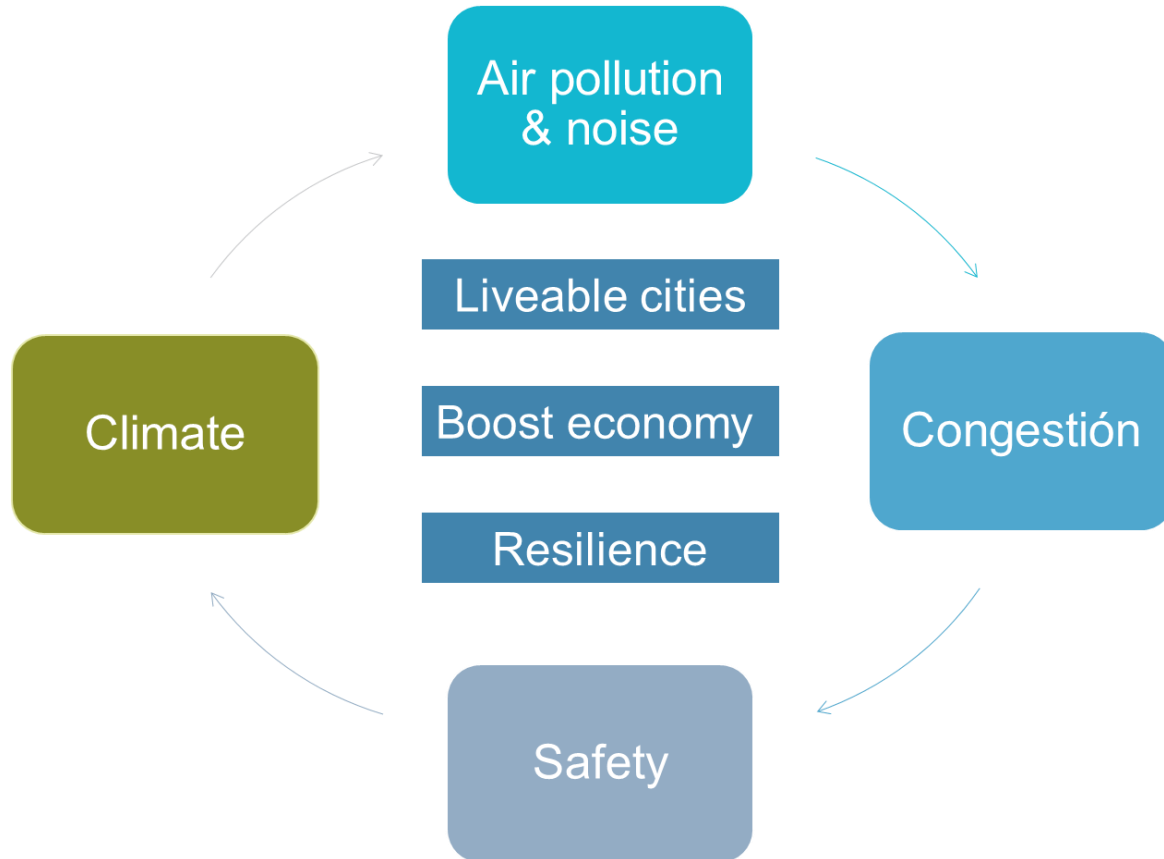


Jos Streng
Traffic and Transport Department,
City of Rotterdam



Challenges and context to be addressed

Reach CO2 & emissions free city logistics in major urban environments by 2030



Solutions & intervention areas

Smart Governance & Regulations

- Sustainable Urban Logistics Plans (SULPs) and emission reduction targets
- Access Regulations Low and Zero Emission Zones
- Public Procurement of sustainable services
- Shared spaces and curb side management
- Co-creation with key Stakeholders

Clean & alternative fleet

- New business models for take up of electric/FCEV vans and trucks, cargo bikes
- Acceleration of product/vehicle development.
- Energy storage and e-charging infrastructure
- Cargo bikes and walking carrier
- Drones and autonomous vehicles

Logistics operations

- Freight flows consolidation
- Micro-hubs & consolidation centres, hubs
- Decoupling transport and delivery (Pick up points, lockers)
- Flexible time and off peak deliveries → low noise operations
- Workers welfare, safety and skills

Purpose oriented data acquisition

- Data driven urban freight
- Develop and implement data governance models
- Pan European urban freight data spaces: data sharing principle and protocols
- Information based policies and decision making
- Dynamic planning and access to urban spaces/resources

Consumer engagement

- Increase consumer awareness
- Sustainable delivery choices and returns management (e-commerce growth)
- Meet actual consumer expectations: Sustainability is a must!

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www.polisnetwork.eu



Overarching principles and key factors of success



Smart Governance & Regulations

- Sustainable Urban Logistics Plans (SULPs) and emission reduction targets
- Access Regulations Low and Zero Emission Zones
- Public Procurement of sustainable services
- Shared spaces and curb side management
- Co-creation with key Stakeholders

1. Local authorities need to **understand the flows per type of activity** so they can bring factual and objective arguments supporting measures.
2. **Stakeholders' involvement is key** to ensure governance models are workable and functional.
3. **Courage** is needed as interventions may change the dynamics of the urban logistics ecosystem.
4. **Medium- and long-term plans facilitate companies** to adapt and are highly desirable.
5. **Companies need to collaborate** and **define common needs** and concepts to be considered by local authorities.
6. 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.
7. **Strategic collaboration frameworks among cities and companies** (e.g. POLIS & ALICE) is essential. **Linking to EU countries' governments and the EC** is instrumental to accelerate transition.
8. For any Governance or Regulation measure in place, **enforcement is key**.

Overarching principles and key factors of success



Clean & alternative fleet

- New business models for take up of electric/FCEV vans and trucks
- Energy storage systems
- e-charging infrastructure (depot, street, etc.), grid upgrade and energy mix
- Transport modes are smartly used and combined
- Drones and autonomous vehicles
- Cargo bikes and walking carrier

1. **Alternative fleet operation needs to be affordable** (TCO and RoI principles apply).
2. **More intensive use of electric vehicles favours economics** more than with traditional vehicles
3. **Business models with low usage of vehicles and means need to be rethought.**
4. 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.
5. **Smaller electric vehicles and cargo bikes** may increase speed and delivery quality in some segments, but it is not always the best solution.
6. **Vans and trucks continue to play an important role in the system.**
7. **Robots, drones** 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
- Micro-hubs & consolidation centres, hubs
- Decoupling transport and delivery (Pick up points, lockers)
- Flexible time and off peak deliveries → low noise operations
- Workers welfare, safety and skills

1. **Sustainable delivery solutions** (not only vehicles) need to be **competitive** in costs.
2. **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**
3. **Consolidation must be the norm on cities flows**
 - **New models of collaboration** need to be developed and applied;
 - Support and implement **physical internet concepts**;
 - Possibly **limiting quick delivery** to the strict necessary goods
 - **Public-private collaboration** is key to impulse these models (incentives and access regulations)
 - **Consolidation centres** are needed to shorten last mile delivery distances, enable consolidation and the use of low/zero emissions vehicles such as green VUL or Cycle logistics.
4. **Make use of off-peak deliveries as much as possible**
5. **Decoupling transport and delivery operations**
 - Parcel Lockers, Pickup Points and other unattended delivery solutions will play a central role
5. **Training of drivers is essential** to spread sustainable urban logistics both on social aspects (safety, health prevention) and environmental one with eco driving practices

Overarching principles and key factors of success



Purpose oriented data acquisition

- Data driven urban freight
- Develop and implement data governance models
- Pan European urban freight data spaces: data sharing principle and protocols
- Information based policies and decision making
- Dynamic planning and access to urban spaces/resources

1. For cities, **implementing well developed information-based policies and decision-making processes** should be at the core of the city vision.
2. **Cities** work towards **optimal support of digital interactions with stakeholders for logistics processes**: access regulation, curb side management, traffic management, etc.
3. **Companies deal with more regulated environments that will require them to collaborate and share information with cities** to seamlessly arrange activities: access to specific zones, delivery windows, access regulations, access to loading and unloading spaces, access to traffic and city status information, etc.
4. **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.
5. **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.) and at European level.



Overarching principles and key factors of success



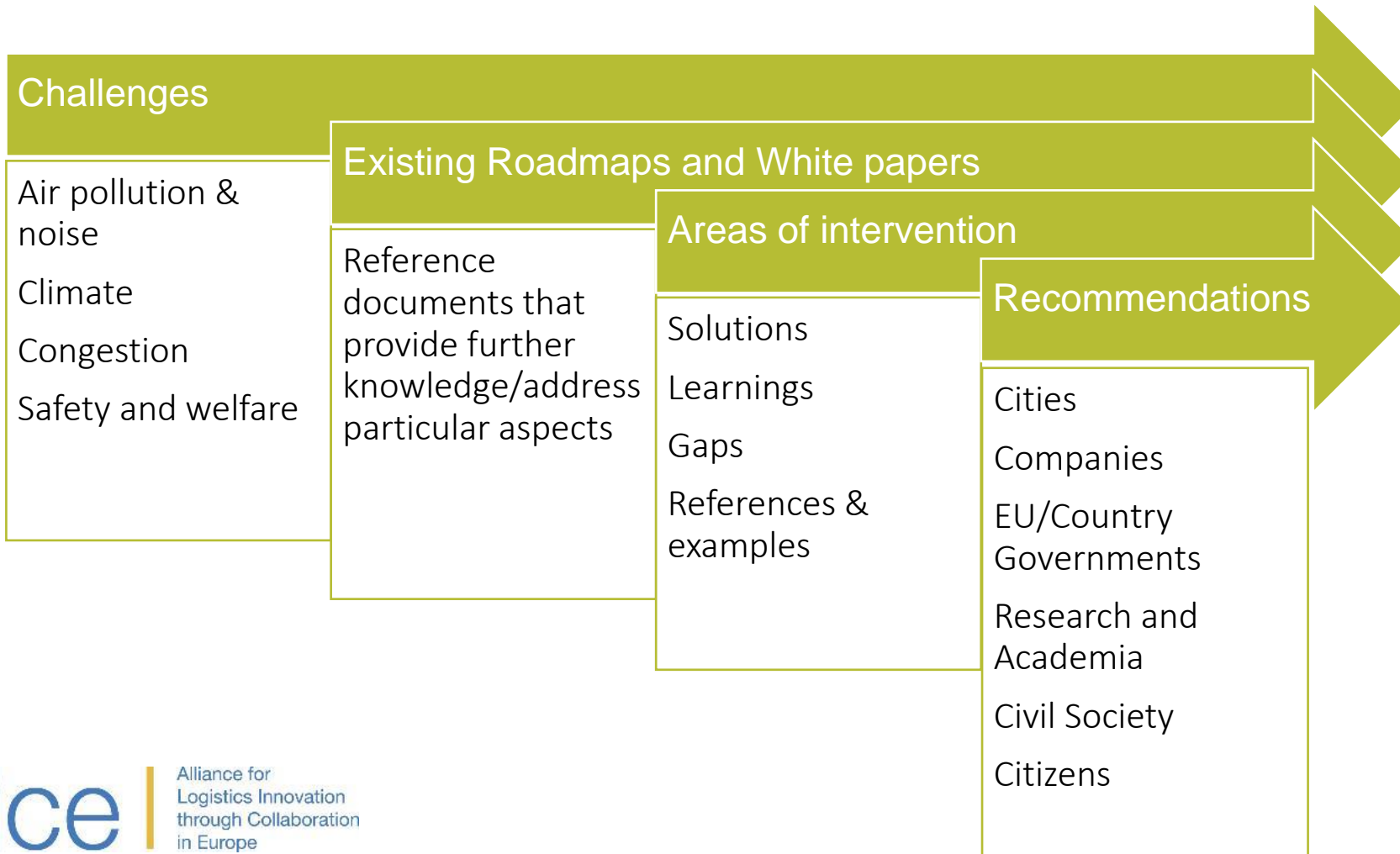
Consumer engagement

- Increase consumer awareness
- Sustainable delivery choices and returns management (e-commerce growth)
- Meet actual consumer expectations: Sustainability is a must!

1. **Price is the main factor for decision** following by **time** in terms of consumer delivery preferences.
2. **Consumers do not receive sufficient information on the implications of their delivery choices in regards of sustainability.**
3. **Sustainability information works:** when information on sustainability is provided, there is already a positive impact on consumers decision.
→ e.g. Longer lead times has a positive impact on sustainability.
4. **Retailers may positively contribute to the process by offering proper information** and providing different alternatives for urban delivery.

ALICE & POLIS Joint Document:

“Cities and Industries working together to accelerate transition towards efficient and emissions free city logistics by 2030”, to be launched on 1- 2nd Dec 2021 in Gothenburg



Goals

Liveable cities

Boost economy

Resilience



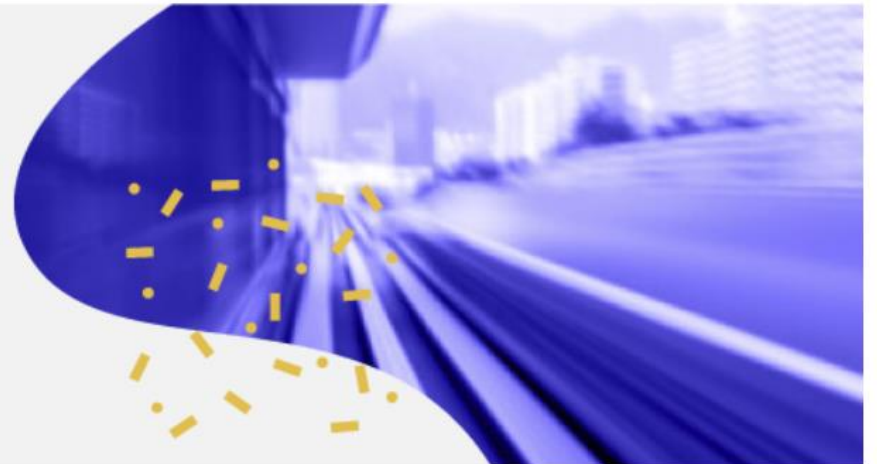
TRANSPORT RESEARCH ARENA

LISBON 2022

MOVING TOGETHER

See you in Lisbon!

14-17 NOVEMBER 2022



CL5-2022-
D6-02-05

Advanced multimodal network and traffic management for seamless door-to-door mobility of passengers and freight transport

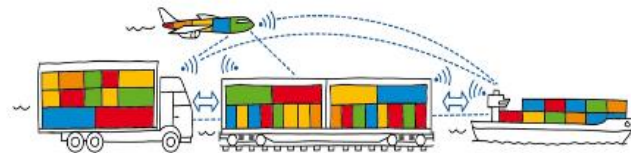


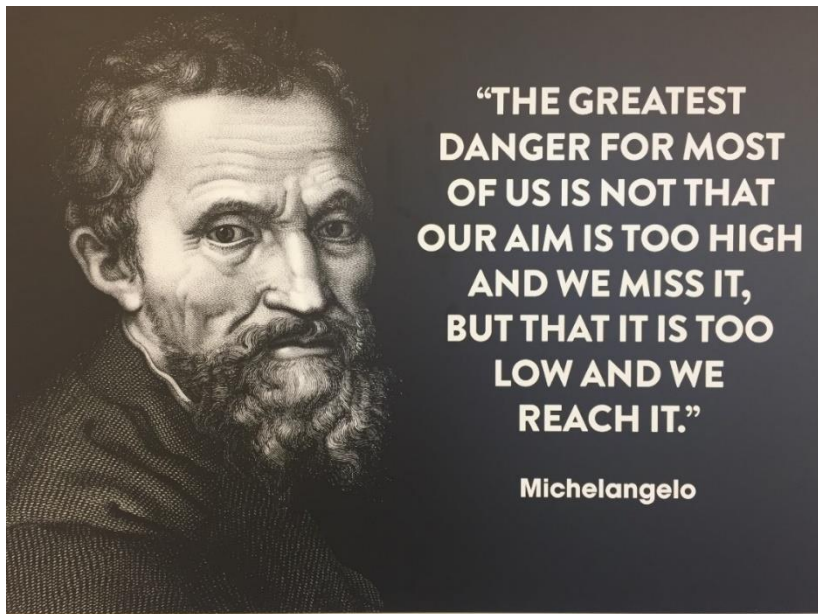
CL5-2022-
D6-02-02

Urban logistics and planning: anticipating urban freight generation and demand including digitalisation of urban freight

THE PHYSICAL INTERNET

Interconnected logistics networks, sharing assets and capabilities





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Thank you!

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

Source: President Abraham Lincoln



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

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