

Destination climate neutral cities:
time to move greener and healthier

7-9 June | Online



Resilient planning for
Sustainable Urban Logistics

alice

Alliance for
Logistics Innovation
through Collaboration
in Europe

The path towards zero
emission logistics: future
trends, opportunities and
challenges

Fernando Liesa

Secretary General, ALICE

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, proxiplus, Atlas Copco, HOFER, COLRUYTGROUP, Unilever	ESC, cefic, ELUPEG, GS1
Logistics Service Providers, Courier and Postal operators & Freight Forwarders	Gebrüder Weiss, LINEAS, GEODIS, BORUSAN LOJISTIK, FM LOGISTIC, Posteitaliane, sender, GRUBER LOGISTICS, on post, UPS, MULTLOG, CHEP, TRI VIZOR, CODOGNOTTO, SESP	CLECAT, EALTH, ECG
Ports, Hubs, Intermodal terminals & Transport Infrastructure	Port of Rotterdam, INTERPORTO BOLOGNA, HUTCHISON PORTS, ECT ROTTERDAM, Port de Barcelona, Puerto de Algeciras, duisport, TRAFIKVERKET, JLL, ECO SLC, SBFPA	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, SILENT SENSORS, algowATT, VIRNet, Green Center, PRODUCTBLOKS, everis, URBAN RADAR, log-sea, BIMAR, il interlogizator, PNO, TRAXENS, RIFA, NXMOVE, NEW OPERA, DAC, VERITIS, GEA, VISMA, miscalactor, LOGIT ONE, LastMile, iniecom, north, HACON, PTV GROUP, TRANSPOREON	ERTICO, LEAN & GREEN
Regional & National Logistics Clusters & Associations	vnl, CLOSER, EffizienzCluster LogistikRhur, AirCargoBelgium, WIL, logistop+, CESMAD BOHEMIA, CPLSA, LIMOWA, CARA, POM, Euralogistic	Smart Freight Centre
Research and technology Centers	Fraunhofer, KLI, ZLC, BIBA, TU Delft, TNO, XAMK, RI SE, TU/e, LCA, howest, Fraunhofer IPT, CATAPULT, COOR, ITENE, Amsterdam University of Applied Sciences, TU Delft, TNO, lmecc, Genit	ectri, ELA
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

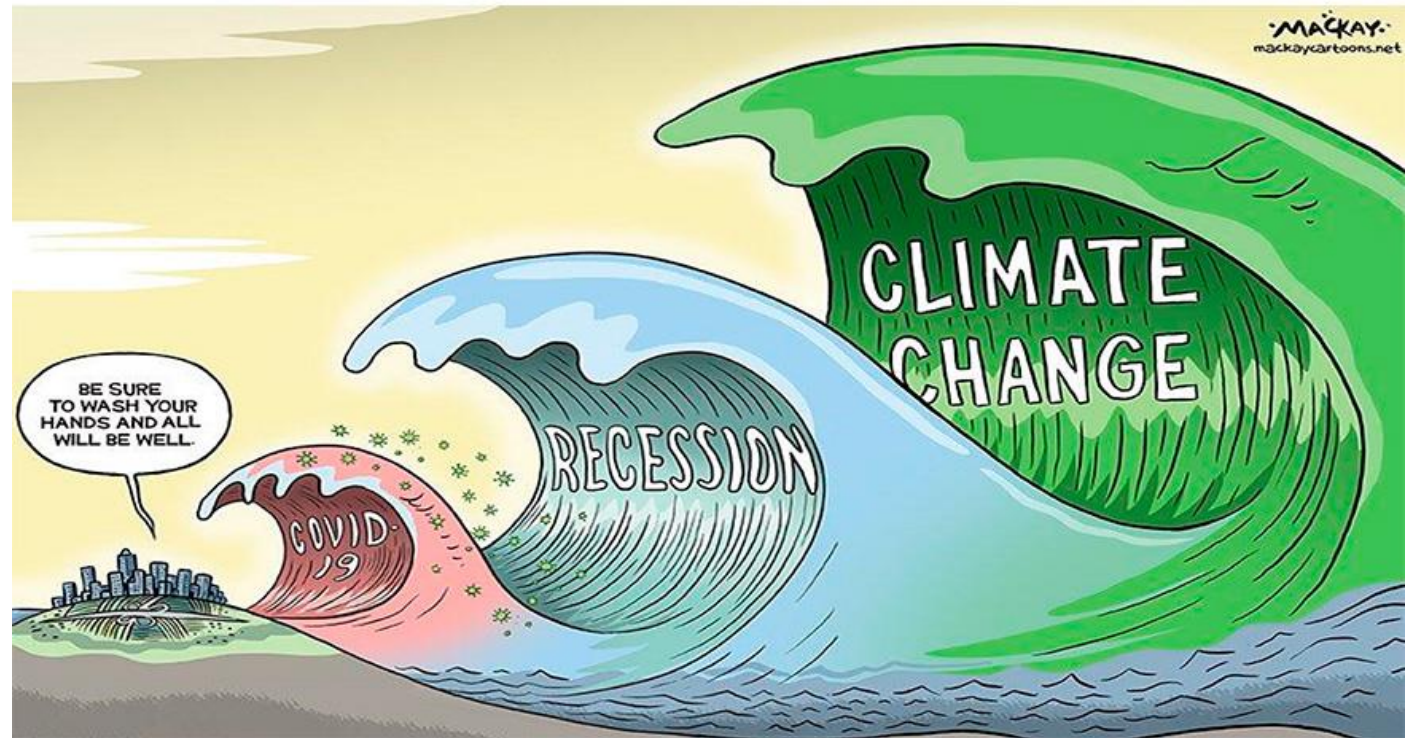


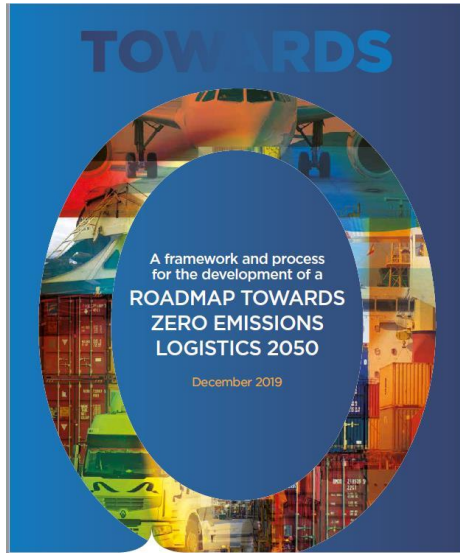
Activities performed partially in the frame of WINN, SETRIS, SENSE and BOOSTLOG Projects. WINN, SETRIS, SENSE & BOOSTLOG projects have received funding from the European Union's FP7 and Horizon 2020 research and innovation Programme under grant agreements No. 314743, No. 653739, No. 769967 and No. 101006902

- Planning the unplannable
- Dealing with (un)certainities

Challenges and opportunities How to be ready?

- Move out the comfort zone
- Agile and flexible
- Leadership (talking vs acting)



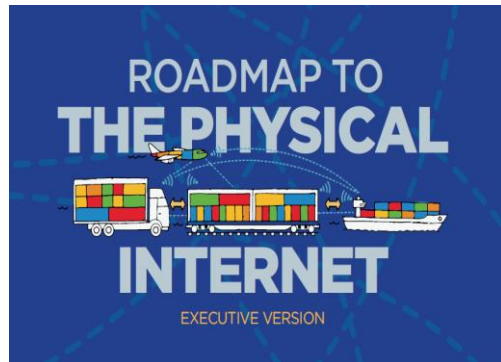


[Link to the document](#)

Making assets transition affordable!



© 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

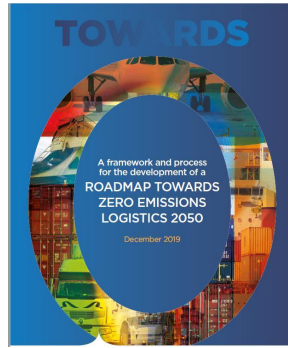


[Link to the document](#)

Additional focus needed

Current focus

PI PHYSICAL
INTERNET



[Link to the document](#)

FREIGHT DEMAND GROWTH IS MANAGED

An icon showing a shopping cart with two arrows pointing in opposite directions, representing managed freight demand growth.

TRANSPORT MODES ARE SMARTLY USED AND COMBINED

An icon showing a train, a truck, a ship, and a plane, representing the smart use and combination of transport modes.

FLEETS AND ASSETS ARE SHARED AND USED TO THE MAX

An icon showing a warehouse and a truck, representing shared fleets and assets used to the maximum.

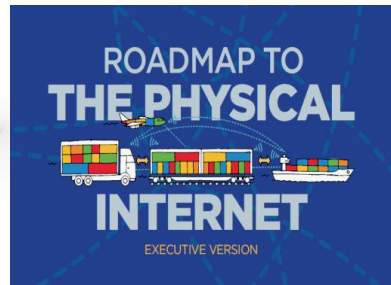
FLEETS AND ASSETS ARE ENERGY EFFICIENT

An icon showing a train, a truck, a ship, and a plane, representing energy-efficient fleets and assets.

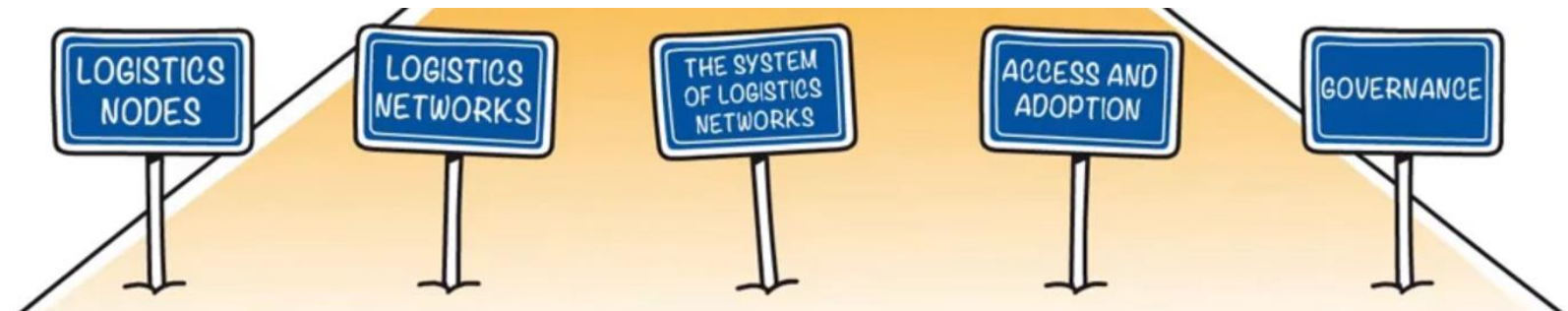
FLEETS AND ASSETS USE LOWEST EMISSIONS ENERGY SOURCE FEASIBLE

An icon showing a leaf, a battery, and a fuel pump, representing the use of the lowest emissions energy source feasible.

Urban Logistics



[Link to the document](#)



Challenges to be addressed

Reach CO2 & emissions free city logistics in major urban environments by 2030¹

- Enhance liveability
- Decrease emissions
 - Air pollution & noise
 - CO2
- Improve safety
- Reduce congestion
- Boost economy
- Resilient cities



Solution areas & interventions

Smart Governance & Regulations

- Urban Logistics Plans and emission reduction targets
- Rewarding, recognition, incentives and subsidies schemes, enforcement
- Access Regulations Low and Zero Emission Zones
- Curb side management (space management: Multi-use lanes, smart L/U bays, geofencing and sensors, stop double parking, digital enforcement)
- EU-Countries-Cities Legal Framework
- Urban Logistics within urban Fabric/mobility hubs
- Procurement of zero-emission goods & services
- Governance models: Stakeholder's collaboration/needs segmentation

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

Logistics operations

- Redefinition of delivery/logistics spaces
- Micro-hubs & consolidation strategies, mobile lockers
- Decoupling transport and delivery
- Off peak deliveries → low noise operations
- Worker's skills and safety
- Instant deliveries
- Tools and technologies (AI, IoT,...

Purpose oriented data acquisition

- Better understand urban freight
- Information based policies and decision making
- Data sharing protocols and standards
- Dynamic planning and access
- Governance

Consumer engagement

- Consumer behaviours and retail offering (e-commerce growth)
- Circularity and LCA

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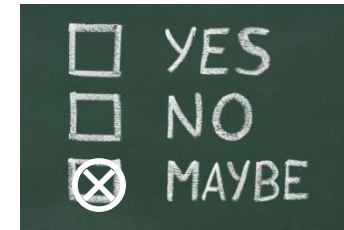
POLIS

CITIES AND REGIONS FOR TRANSPORT INNOVATION

www.polisnetwork.eu

Is it about technology?

AI, IOT, ITS, Blockchain, super computing, digital twins



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A good framework able to cope with uncertainty

*Skills, capabilities and
Knowledge*

*Silent vs Visible
Problems*

Collaboration

*Digitalization & standardization and modularity, open and
shared access to resources*



The banner features a blue-toned background with a cityscape and various transportation modes: a train, a truck, and an airplane. A network of white lines connects various nodes, symbolizing connectivity. On the left, a white-bordered box contains the text '8th INTERNATIONAL PHYSICAL INTERNET CONFERENCE'. Below this, the main title 'IPIC 2021' is displayed in large, bold letters, with 'IPIC' in black and '2021' in blue. To the right of the title, the dates '14-16 JUNE 2021' are written in orange, followed by 'Virtual Conference' and the website 'www.pi.events/IPIC2021' in black. In the bottom right corner of the banner, the social media hashtags '#IPICConference' and '#PhysicalInternet2021' are listed. The 'alice' logo and the 'ETIZEX ICCS' logo are also present at the bottom right.

8th INTERNATIONAL
PHYSICAL
INTERNET
CONFERENCE

IPIC 2021

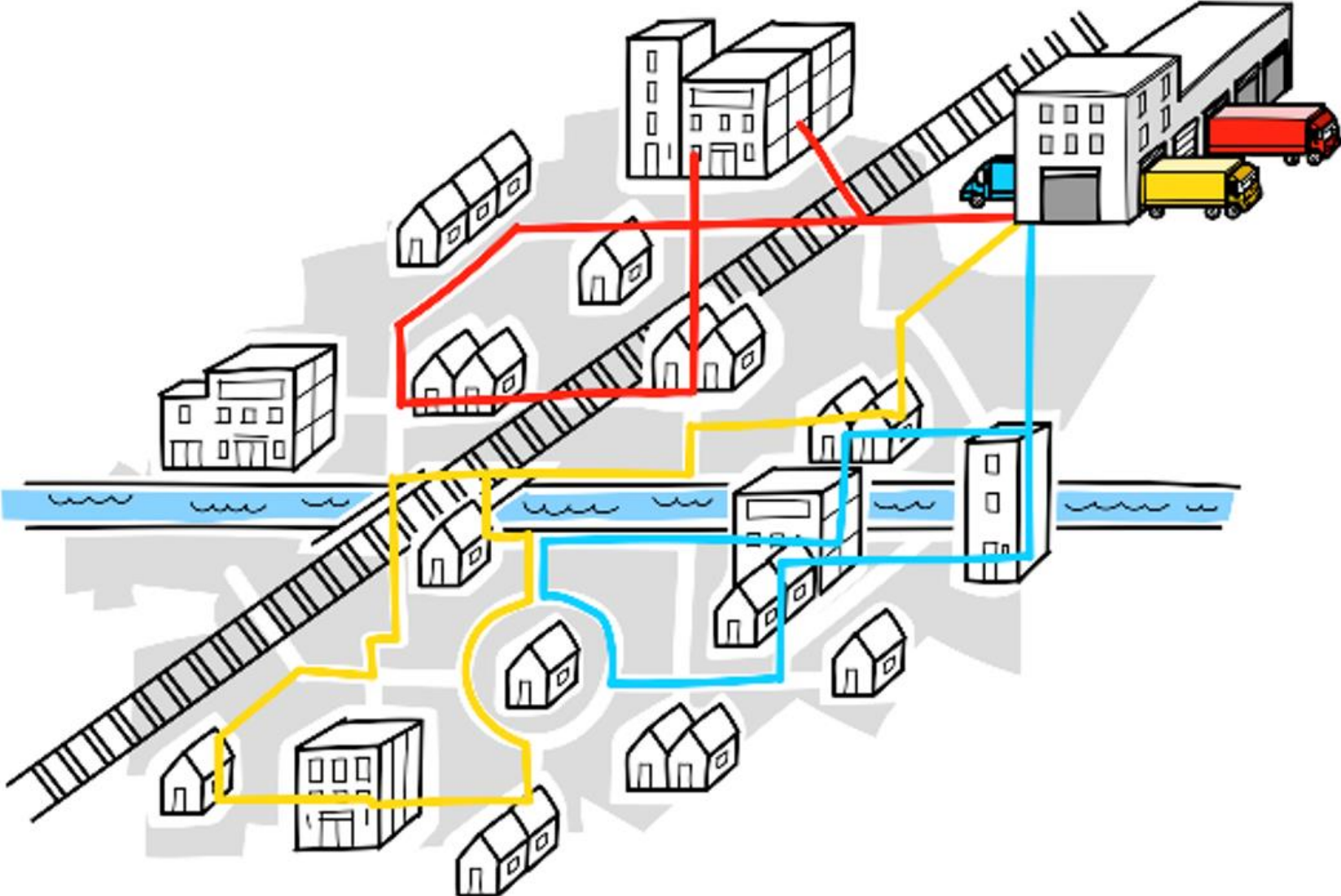
14-16 JUNE 2021 Virtual Conference
www.pi.events/IPIC2021

#IPICConference
#PhysicalInternet2021

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ETIZEX
ICCS

- Physical Internet Urban Logistics and **Distribution Networks**
- **Parcel logistics** and distribution networks
- **Digital Twins** for shared-connected and low-emission urban logistics operations
- **Curb Side Management** in the Physical Internet



New in 2021:



Running:

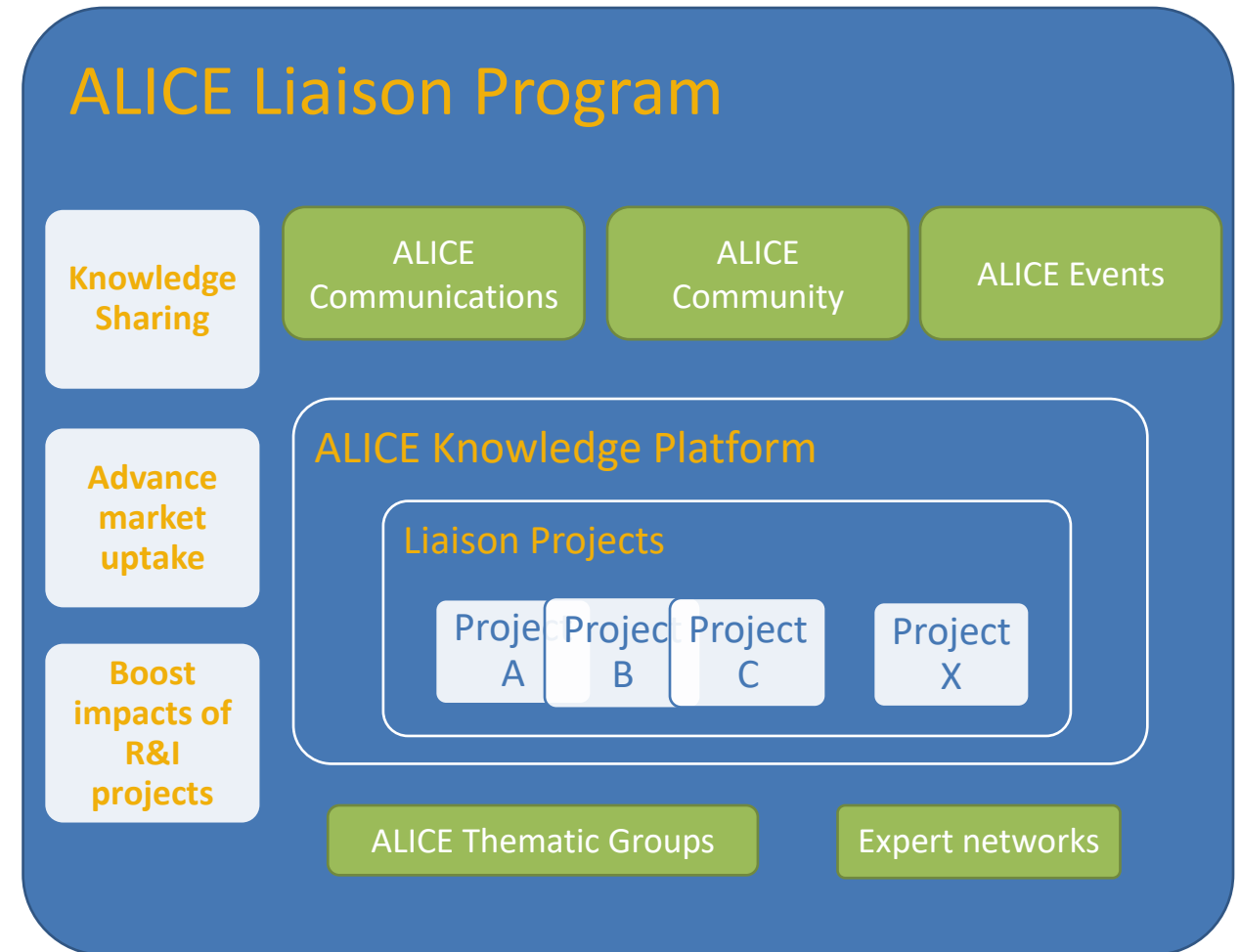


Finished:



An initiative of ALICE for R&I projects supporting our roadmaps implementation to increase knowledge sharing and market update, thus boosting impacts

- To connect with stakeholders in the logistics sector
- To support projects' dissemination and exploitation during the project course and after end of the project
- Cooperation opportunities with other projects
- Linking with ALICE Thematic Groups



We are studying 21 projects funded by FP5, FP6, FP7 & HORIZON2020. If you have used outcomes of the projects or we miss some projects whose projects have been implemented, please let us know!



Implementation Cases are concrete examples in which causal links between public R&I funding and technology, organizational or process innovation in a specific logistics area can be established.

Implementation Cases are coming from R&I projects results that have been further developed and deployed as commercial solutions, have generated a new market or have contributed to new policies and will stablish causal links between research funding and impact.

**Call for Submission:
Implementation Cases on Urban
Logistics**

**Second ALICE Logistics
Innovation Award**

- Submission open: 9 June 2021 . **TODAY!**
- Submission deadline: 30 September 2021
- To: info@etp-alice.eu
- More information: etp-logistics/boostlog



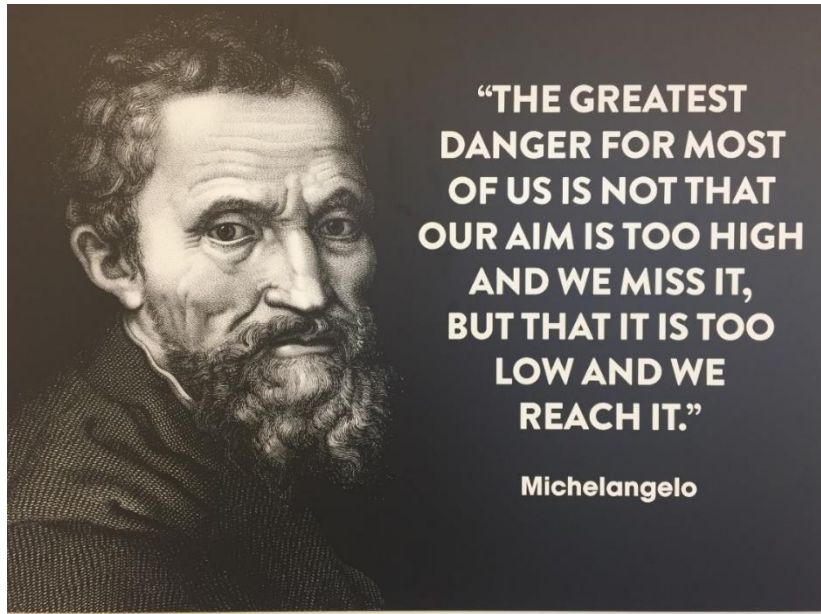
Registration is still open ([Link](#))!

14:30 – 16:30, 21st June 2021



Join us to have your say in four interactive sessions:

1. Improving integrated urban logistics planning
2. Data collection and sharing to support operational efficiency and sustainable urban logistics planning
3. Spatial planning to accommodate sustainable urban last mile logistics
4. Uptake and upscaling of new, innovative and sustainable transport solutions



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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



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