



*Industry lead logistics innovation for a
more competitive and sustainable industry*



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

Develop medium-long term vision for logistics:

Mapping trends, technologies, new business models, requirements...

→ Identify challenges and opportunities

Research & Innovation Strategy/agenda according to Industry interest

→ Make recommendation to European Commission, Member States & Industry



Mapping and analysis of progress: R&I projects, Industry initiatives, Start-ups

→ Share innovation projects & best practices, company results → *Internal exchanges, Events and webinars*

→ Facilitate access to knowledge generated → Knowledge Platform

Network for collaborative innovation in logistics

→ Find the right partners, at the right organizations, with the right level and mindset

→ Develop collaborative innovation projects supported with public funding



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, Intermodal terminals & Transport Infrastructure	            	  
Vehicle Manufacturers & Logistics operations, handling (modular units)	    	
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

Strong partners



Other associations/networks:





Sergio Barbarino

Research Fellow



ALICE Vice-chair



Francois Regis Le Tourneau

Corporate supply chain Standards &
Prospective Director



ALICE Chair



Nik Delmeire

Coordinator



ALICE Vice-chair

Secretariat



Sophie Punte

Executive Director



**ALICE Sustainable Logistics
Supply chains Chair**



Salvador Furió

Director of Innovation & Port
Cluster Development



**Corridors, Hubs &
Synchronodality Chair**



Lars Deiterding

Executive Director



**Systems & Technologies for
Interconnected Logistics Co-chairs**



Angelos Amditis

Research Director



Alex Van Breedam

CEO



**Global Supply Networks
Coord. & Collaboration Chair**



Charlotte Migne

Group Sustainable
Development Director



Urban Logistics Chair



Fernando Liesa

secretary general



Dirk 't Hooft

director
communications



Indrek Ilves

member of the
secretariat

Know more about ALICE structure and functioning

ALICE Thematic Groups Chairs & Vice-Chairs

Sustainable Logistic Supply Chains



Sophie Punte



Corridors, hubs and synchro-modality



Salvador Furió



Systems and Technologies for Interconnected Logistics



Lars Deiterding



Angelos Admitis



Global Supply Network Coordination & Collaboration



Alex Van Breedam



Bart Vannieuwenhuyse (deputy)

Urban Logistics



Charlotte Migne



Alain Baeyens



Lóri Tavasszy



Pieter Leonard



Willem Otto Hazelhorst



Tomas Ambra



Philip van den Bosch



Kris Neyens



Andreas Nettsträter



Zisis Palaskas



Wout Hofman



Eusebiu Catana



Bas van Bree



Dirk 't Hooft



Paola Cossu



Hans Schurmans



Lara Mika



Part of Urban Mobility WG



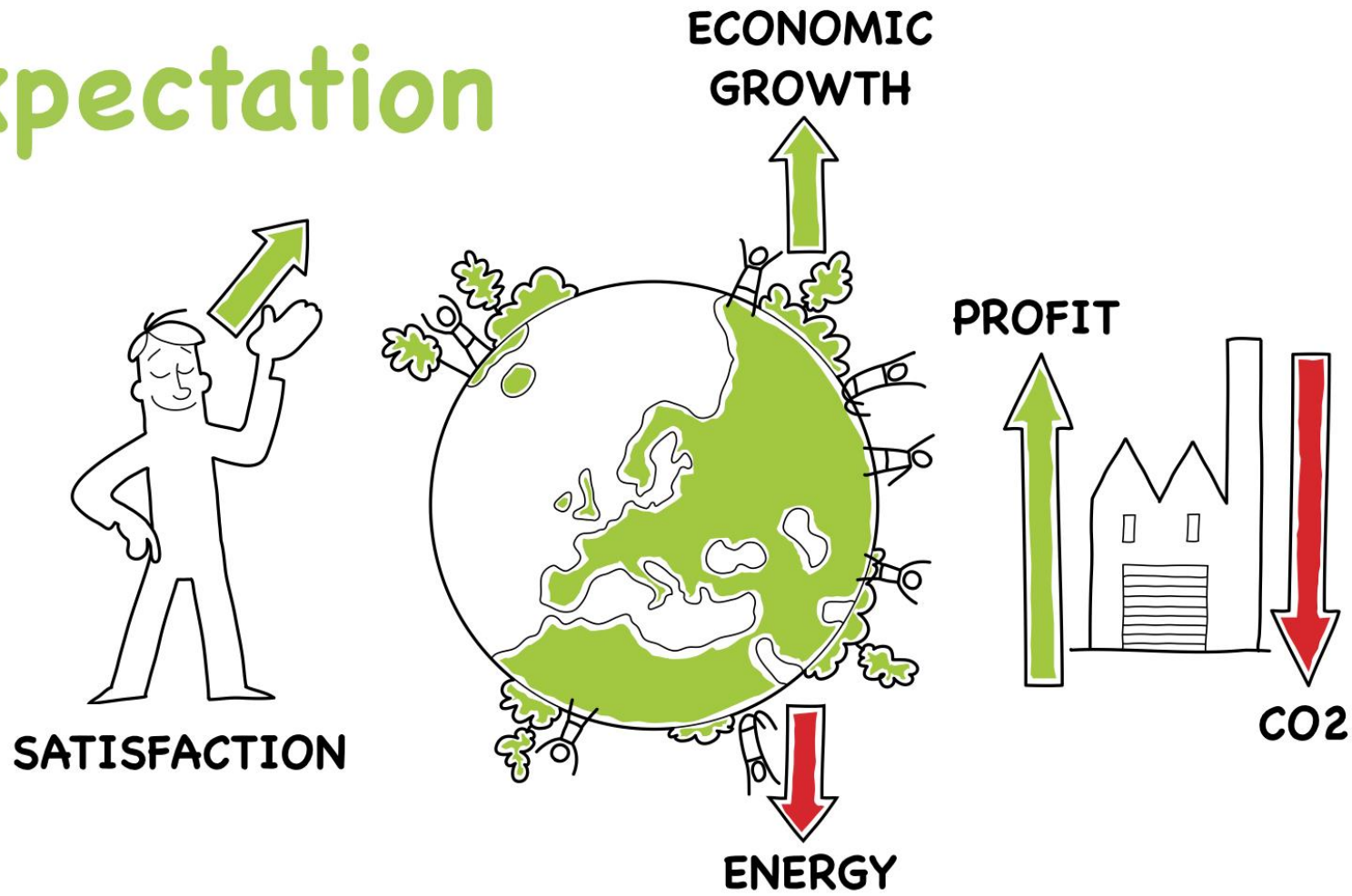
- **Development of new logistics and supply chain concepts and innovation** for a more competitive and sustainable industry.
- The ambition is to **contribute to a 30% improvement of end to end logistics performance by 2030.**
- The ETP on logistics aims to **accelerate** the **deployment** of more efficient, competitive and sustainable supply chains.

Way to achieve

- **Bring together all types of logistics stakeholders:** Shippers (retailers & manufacturers), Logistics Service Providers, freight forwarder and transport carriers (all modes), ports, airports, terminals and terminals operators, real state, transport & logistics equipment, IT, consultancy, research and education
- Together with **relevant stakeholders:** Transport modes OEMs, infrastructure building, enabling technologies leaders.



Expectation



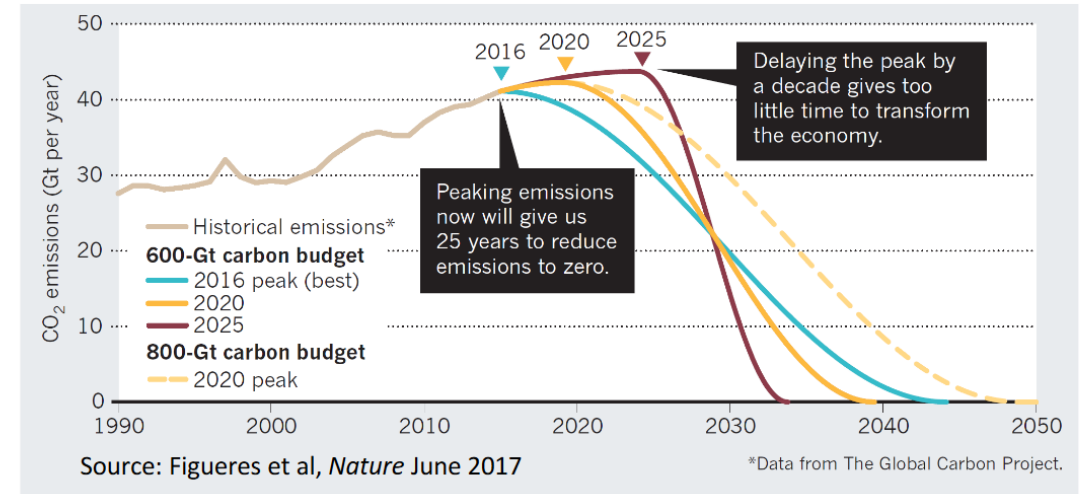
The challenges in perspective: It is urgent to act!

- We need to move fast to meet Climate Targets!
- Moving to greener assets and energy is not enough → **too slow** and **unaffordable!**
- **Short term opportunity?**
 - Make extensive use of current **idle capacity** and **fully utilize assets and infrastructure** in all modes of transport:

Empty trips in all modes, low load factors, not enough intermodality, costly transshipment, overloaded vs unused infrastructure, congestion, few items delivered per stop, too many returns, too fast/dedicated inefficient deliveries...

Carbon Budgeting

Need to stay within tight carbon budgets to limit temperature rise to 1.5-2.0°C

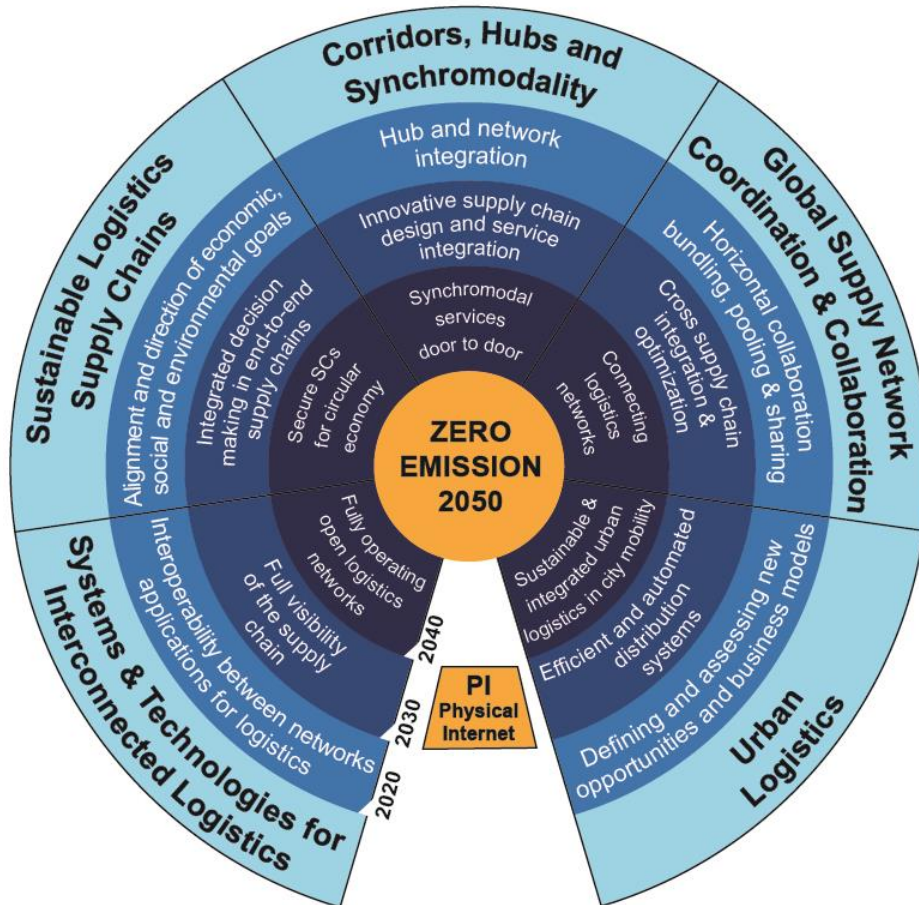


<https://bit.ly/2WGTINT>

Need to embed concept of carbon budgeting into logistics decarbonisation strategies

How can we leverage these benefits? → Opening and connecting non-efficient networks

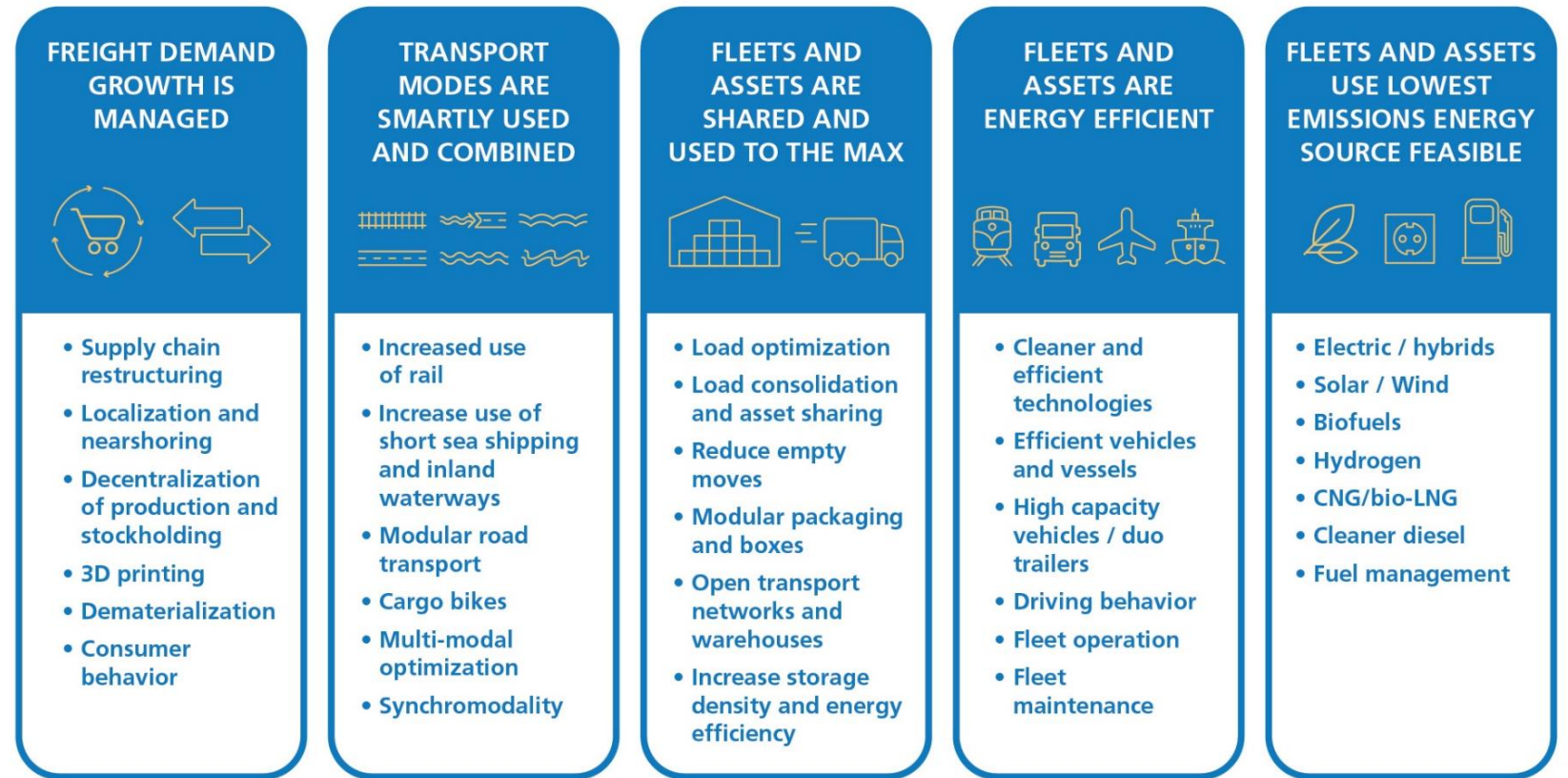
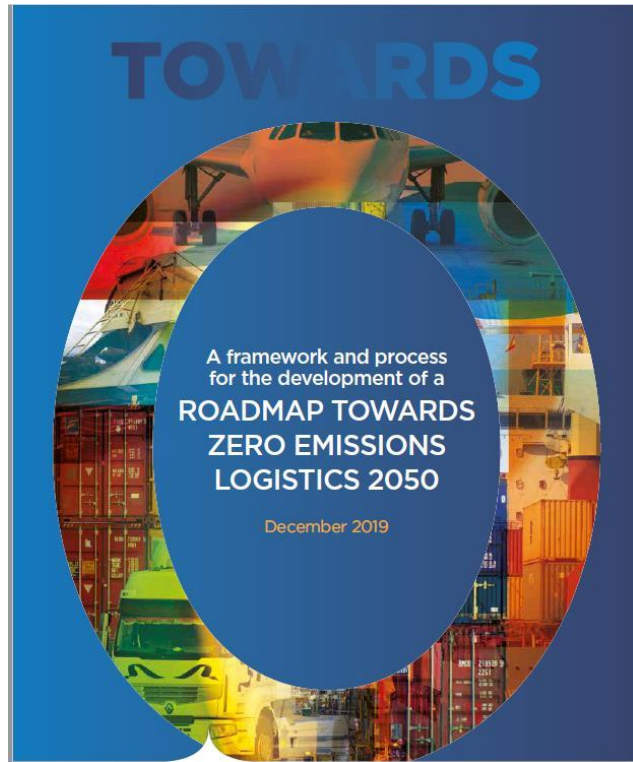




ALICE VISION is to realize Physical Internet by 2030/2040 to pave the way to Achieve Zero Emissions logistics by 2050

Physical Internet will enable companies to be more efficient and sustainability. It cannot fully solve the **Decarbonization Challenge**, but it will make it less onerous to meet and will support transition to zero emission assets

And can deliver results in the critical next 10 years



[Link to the document](#)

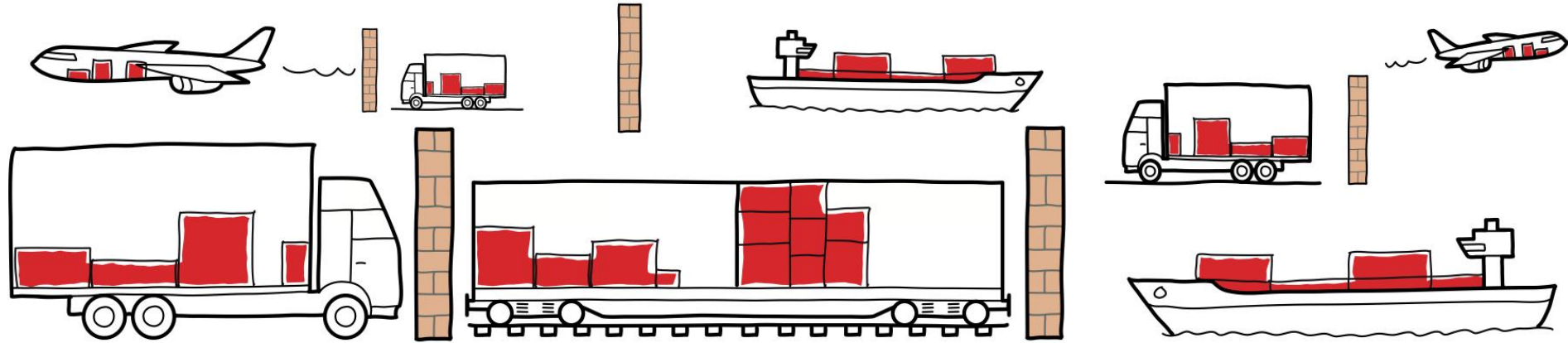
© Smart Freight Centre and ALICE-ETP based on A. McKinnon 'Decarbonizing Logistics' (2018) Roadmap Towards Zero Emissions Logistics 2050. ALICE (2019) www.etp-alice.eu

Additional
focus needed

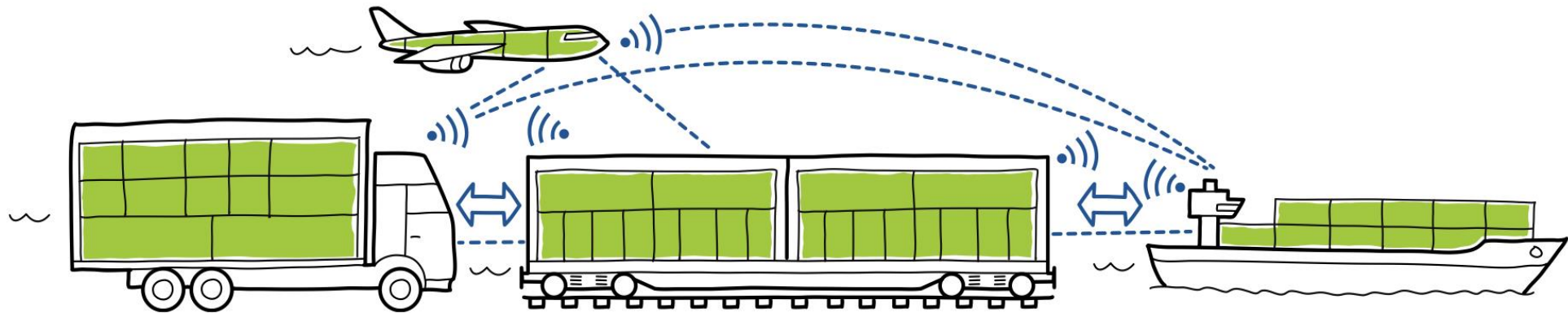


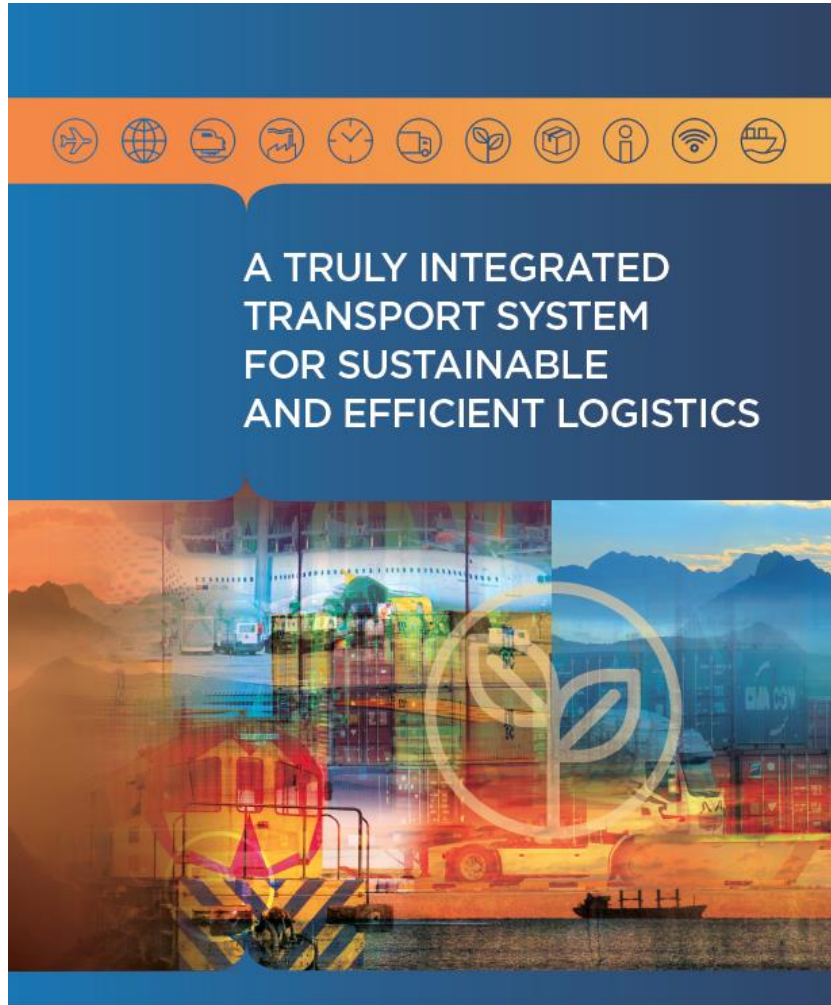
PI PHYSICAL
INTERNET

Current focus



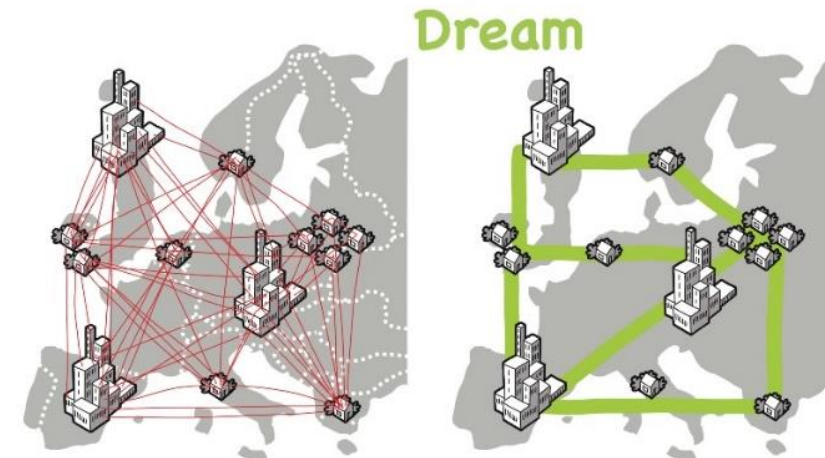
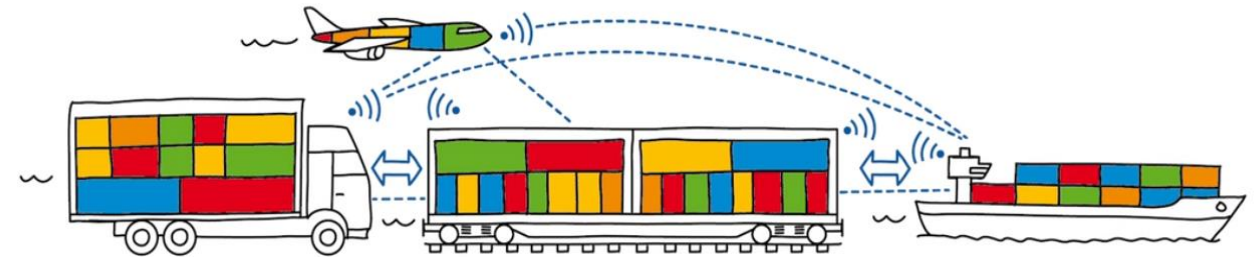
Challenge



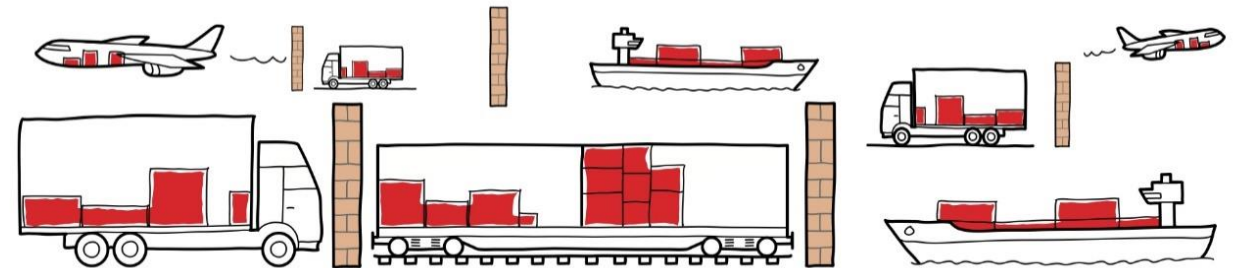
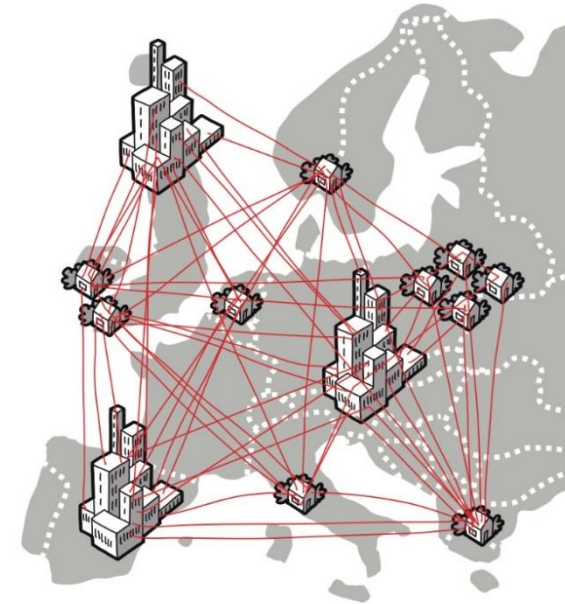
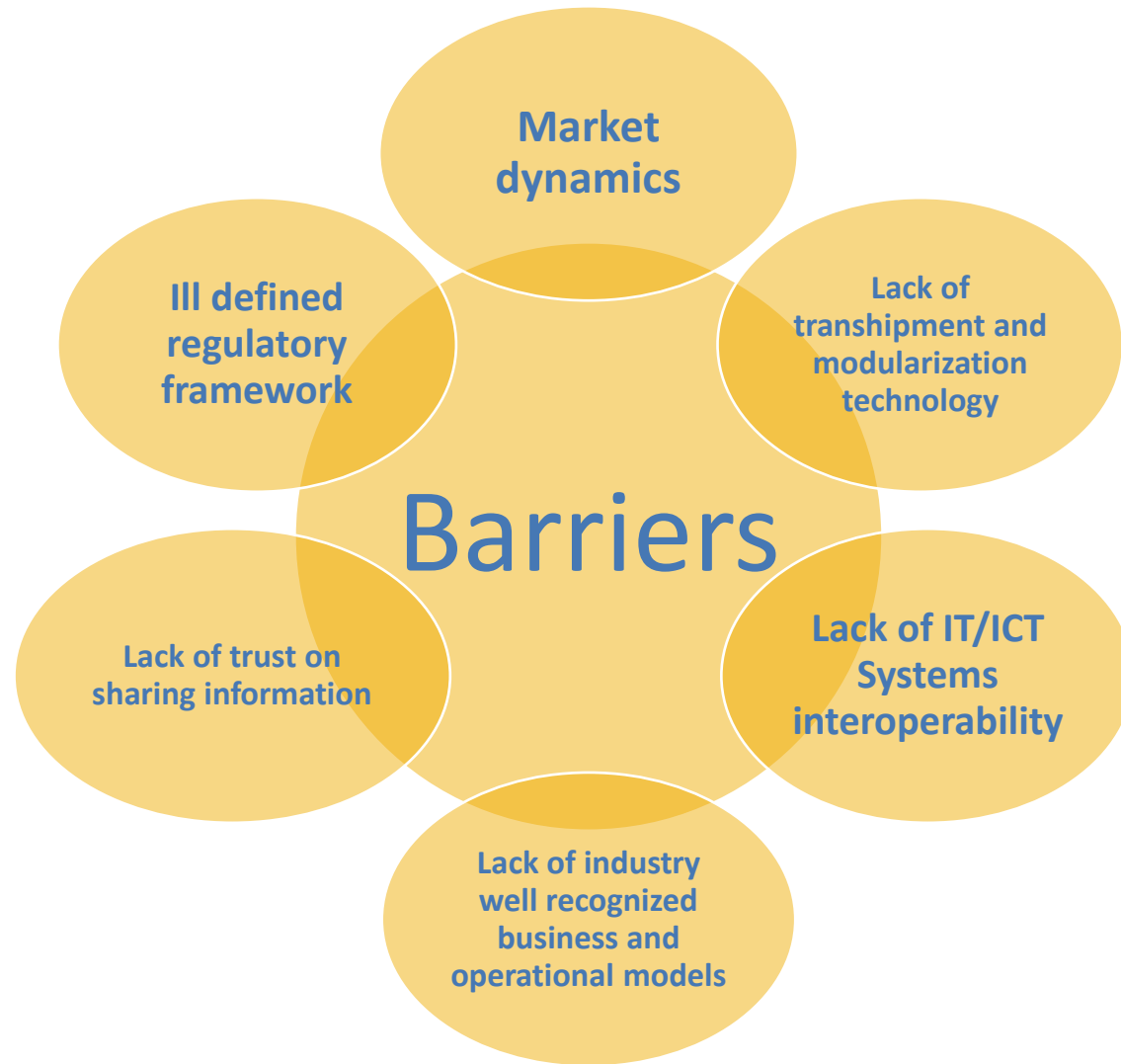


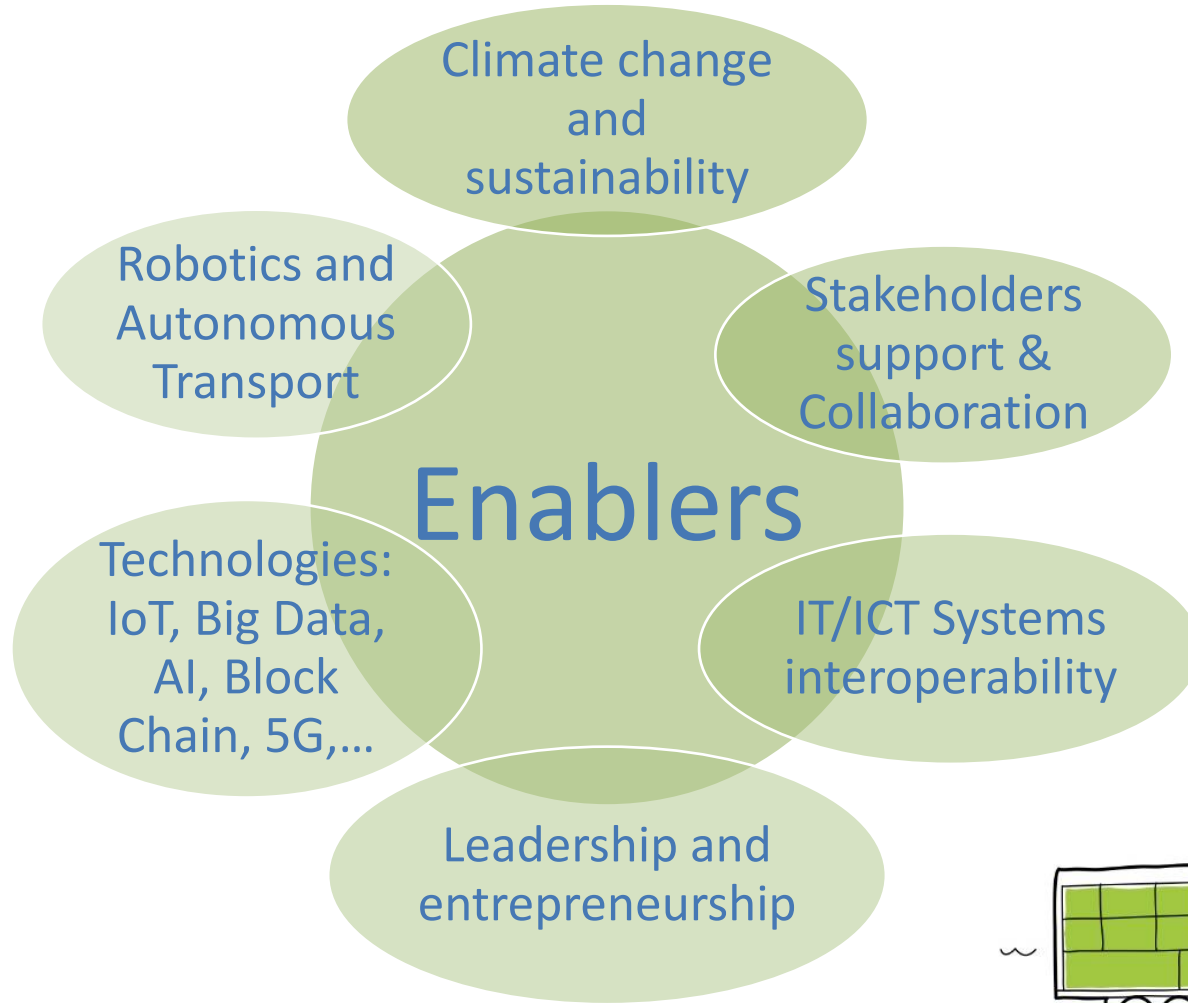
THE PHYSICAL INTERNET

Interconnected logistics networks, sharing assets and capabilities

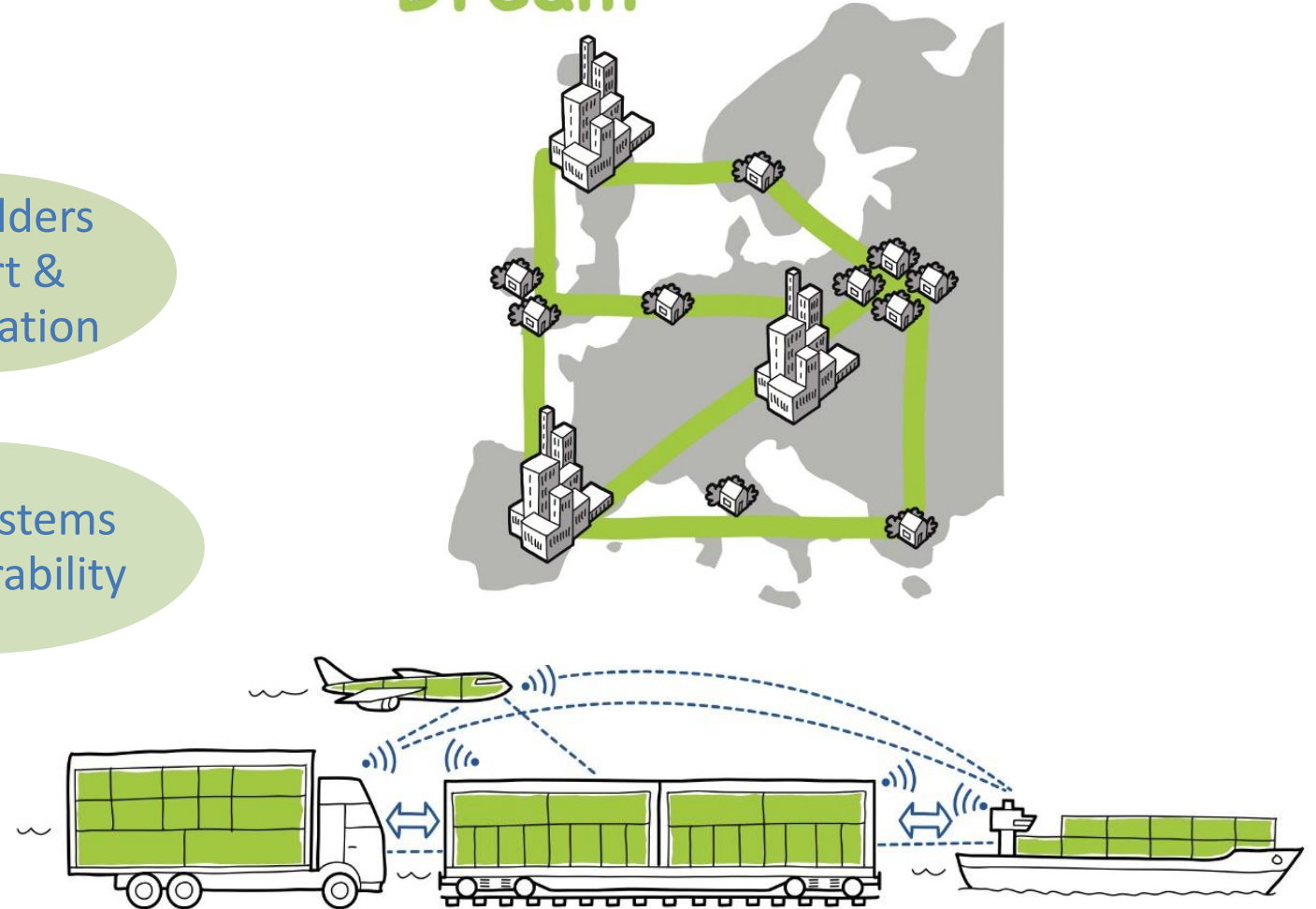


Why is this happening?

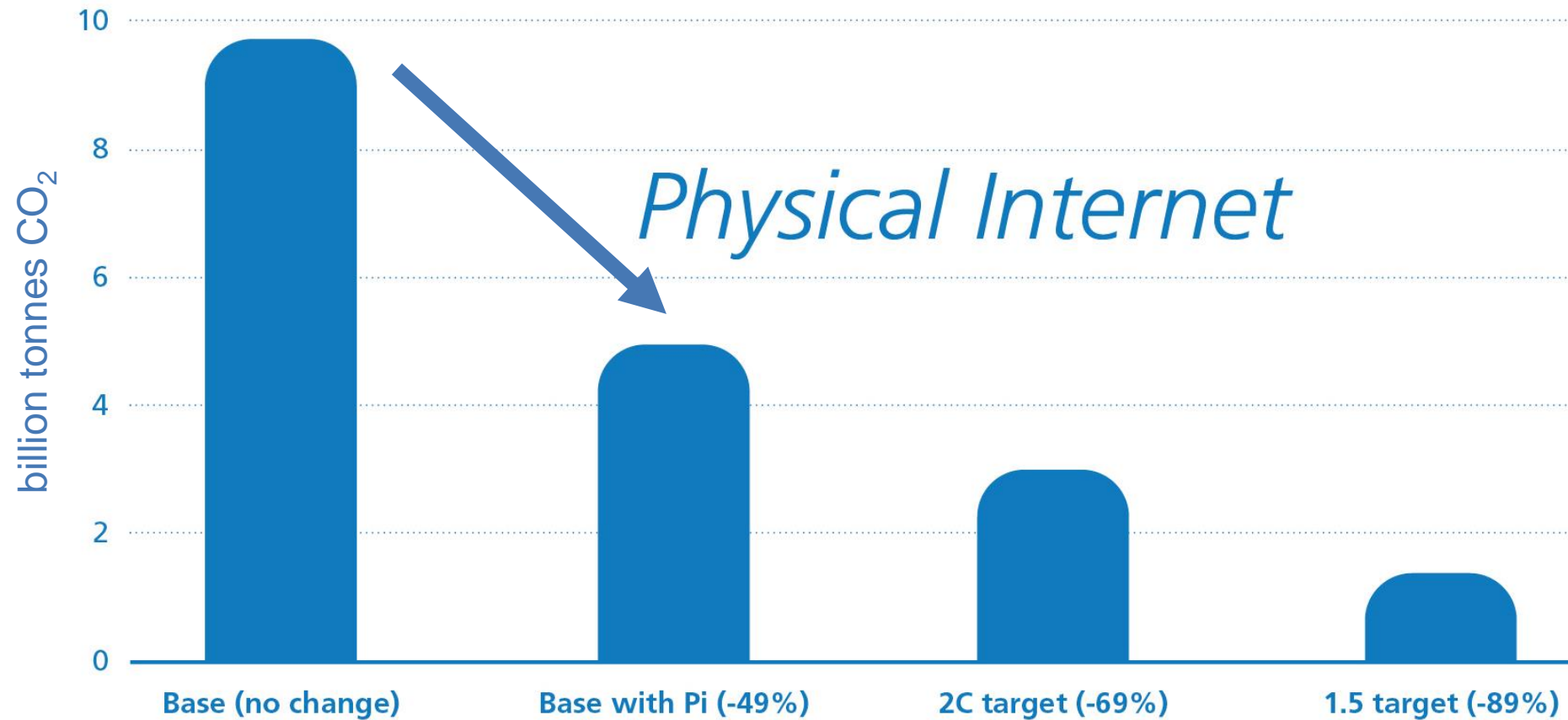




Dream

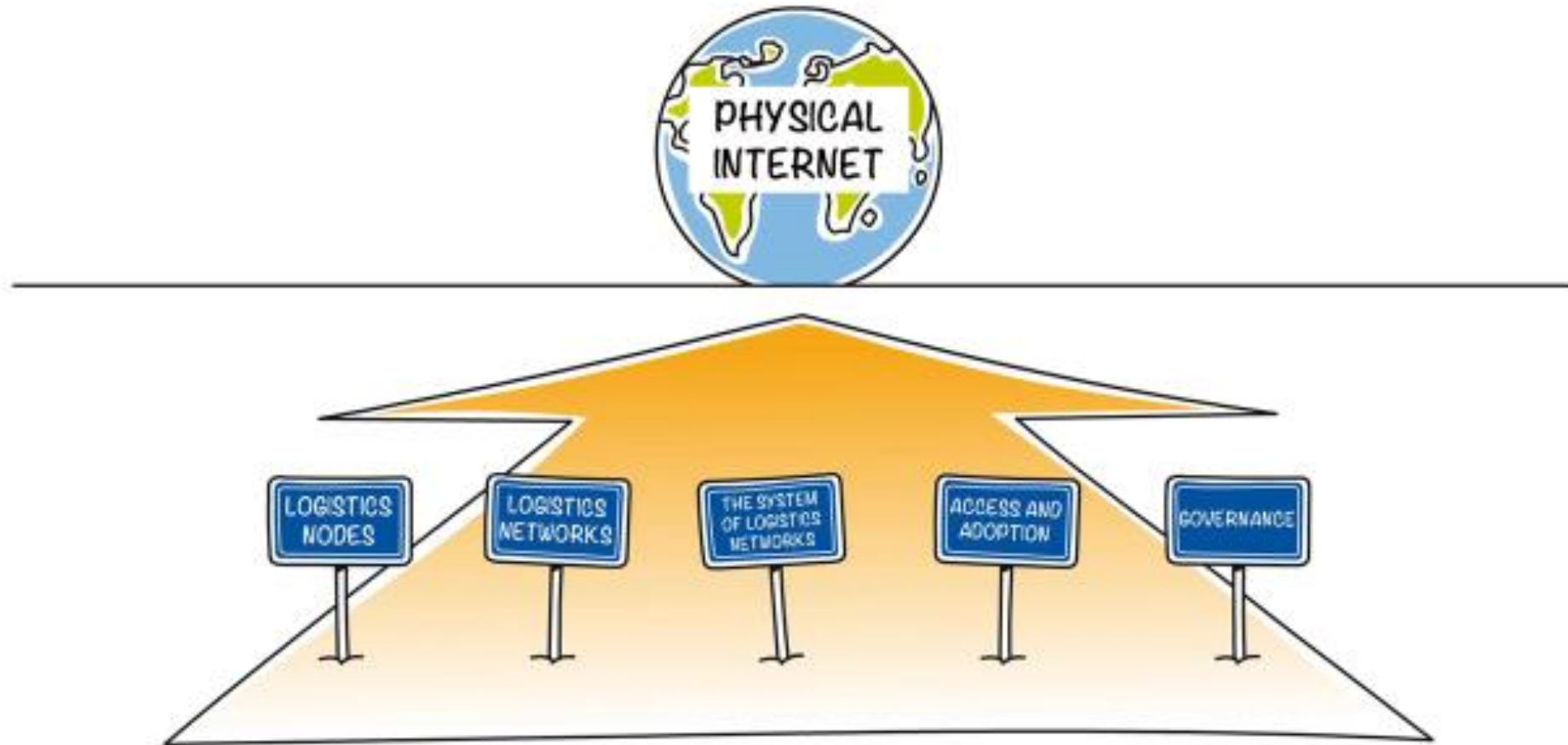


Scenarios for freight-transport emissions in Europe including Physical Internet (PI)



Physical Internet

An enabler for sustainable, agile and resilient supply chains



- Interoperable resources (vehicles, boxes, warehouse space, etc.) accessible and functional for different supply chains

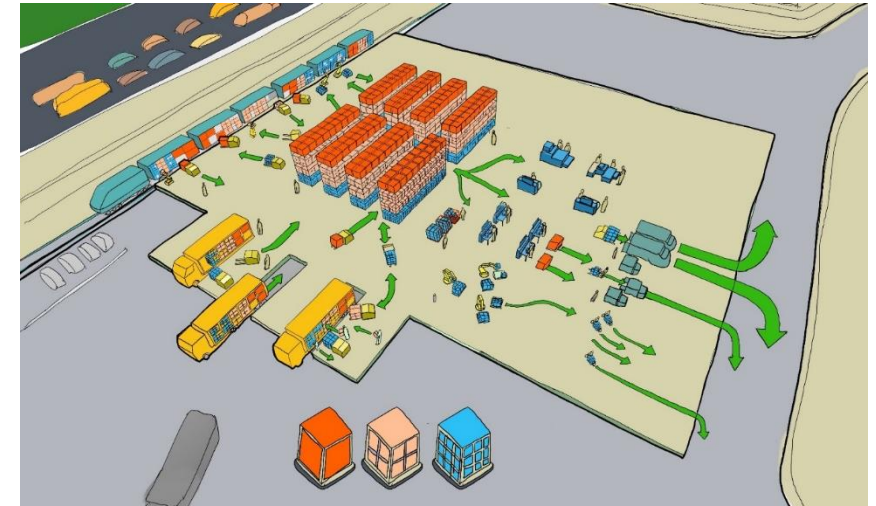
During COVID-19 certain supply chains surged while other plunge creating high transport/logistics demand on some supply chains and unused capacity in others.

- Multiple and interconnected (intermodal) transport links to re-route freight in case of disruptions.

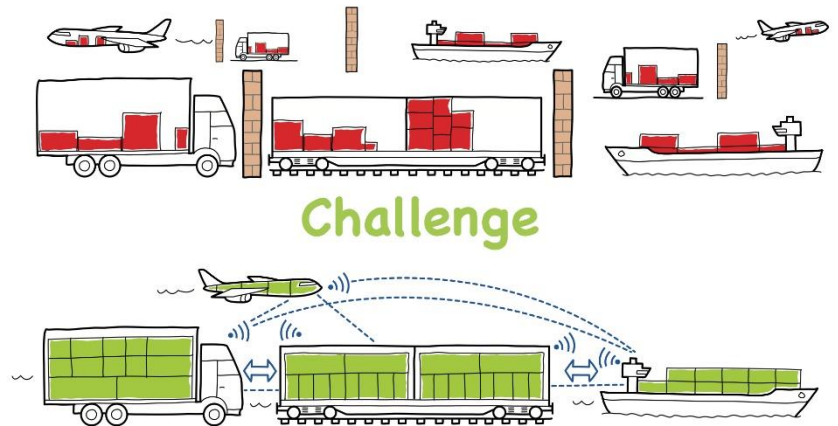
*Ageing infrastructure suffering from climate disruptive events:
Alternative pathways should be available in case of disruption*

- Digitalization enabling plug and play connectivity to systems and resources

Scalability and access to higher performing capabilities (visibility, inventory management, green energy assets and vehicles)



Source: SENSE H2020 project. Physical Internet Roadmap



Cost of Inefficiency vs Transition Cost



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Will this be forever?

How this will evolve?

Social and Political Pressure = increase inefficiency costs



Ursula von der Leyen

President-elect of the European Commission

I want Europe to become the first climate-neutral continent in the world by 2050.

A two-step approach is needed to reduce CO2 emissions by 2030 by 50, if not 55%



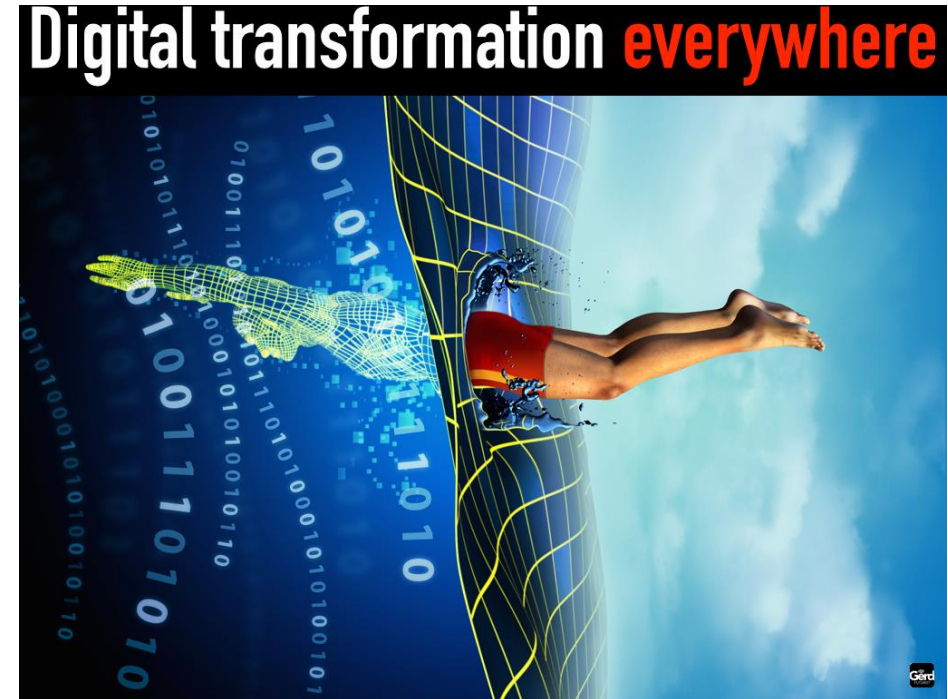
Greta Thunberg

Climate Change Activist

People are dying. Entire ecosystems are collapsing.... and all you can talk about is money, If world leaders choose to fail us, my generation will never forgive them

“Right here, right now is where we draw the line. The world is waking up. And change is coming, whether you like it or not.”

Digitalization/technology = transition costs decrease



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- 
- 
- **Define research and innovation strategies, roadmaps and priorities** agreed by all stakeholders to achieve the ETP on Logistics vision.
 - **Assist the European Commission, Countries and Industry** in the definition of Research and Innovation Programs in logistics, i.e. HORIZON 2020, Horizon Europe.
 - Provide a **network for interdisciplinary collaborative research** supporting members in finding partners: companies, research, academia and public institutions.
 - **Foster members logistics and supply chains innovation** supporting industry leaders to scale-up innovation for growth through competitive and sustainable logistics.
 - Contribute to a better **alignment and coordination of European, national, regional and industry R&I programs in logistics**.
 - Raise the profile and understanding of **logistics innovation, technologies and business processes**, identify key R&I projects results, outcomes and potential implementation cases supporting scale-up.
 - **Monitoring progress and adjusting research and innovation roadmaps** accordingly.



- Will not focus on general logistics policy, only innovation related policy.
- Will not include building of transportation infrastructure or vehicle manufacturing: This is addressed by modal ETPs: Rail, Road, Waterborne, Air and ETP on infrastructure construction.
 - However ALICE will bring the user and operational perspective collaborating with transport ETPs and supporting modal development
- Will not include manufacturing and specifics on industry sectors → This is addressed by ETPs on: food, textile, chemical, forest, steel and manufacturing
 - However ALICE will bring and will support seamless interconnectivity between manufacturing and logistics processes.



- Contribute research and innovation needs and challenges in **logistics and supply chain management**
- Support the European Commission to **define EU co-funded programs**, starting with Horizon 2020, and countries and regions to align.
- **Get to know and implement the outcomes** of these innovation programs in support of competitiveness and sustainability targets
- Access a network for **interdisciplinary collaborative research** involving industry, academia and public institutions.
- Be at the **forefront of industry innovation, development and implementation**
- Have a role in **developing regulatory requirements needed for innovation implementation**
- Have the right to **participate in the TGs and aPlenary** as well as the option to **be part of the Steering Group** and recommend experts to participate in the different WGs.



Key activities: supporting Horizon Europe Programme

([more Info on Horizon Europe](#))

*Actively contribute to Horizon Europe
Programme definition* [Horizon Europe partnerships](#)



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1 b€ request

[> Homepage](#) [> News](#) [> Towards zero emission road transport \(2Zero\): a partnership to achieve carbon-neutrality in road transport by 2050](#)

Towards zero emission road transport (2Zero): a partnership to achieve carbon-neutrality in road transport by 2050



**FUEL CELLS AND HYDROGEN
JOINT UNDERTAKING**

ALICE and 8 members as part of the Advisory Board

**STUDY ON EUROPEAN BUSINESS CASES FOR FUEL CELLS AND
HYDROGEN TRUCKS AND TECHNOLOGY DEVELOPMENT
ROADMAP***

**Large Scale Demonstrations in Horizon Europe
2021-2027**

Clean Hydrogen Partnership

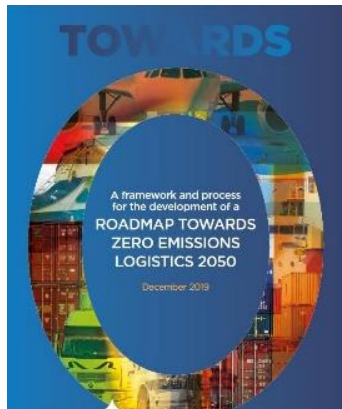
[*https://etendering.ted.europa.eu/cft/cft-display.html?cftId=5635](https://etendering.ted.europa.eu/cft/cft-display.html?cftId=5635)

Priorities determined by ALICE members for
Roadmap next steps 2020-2021

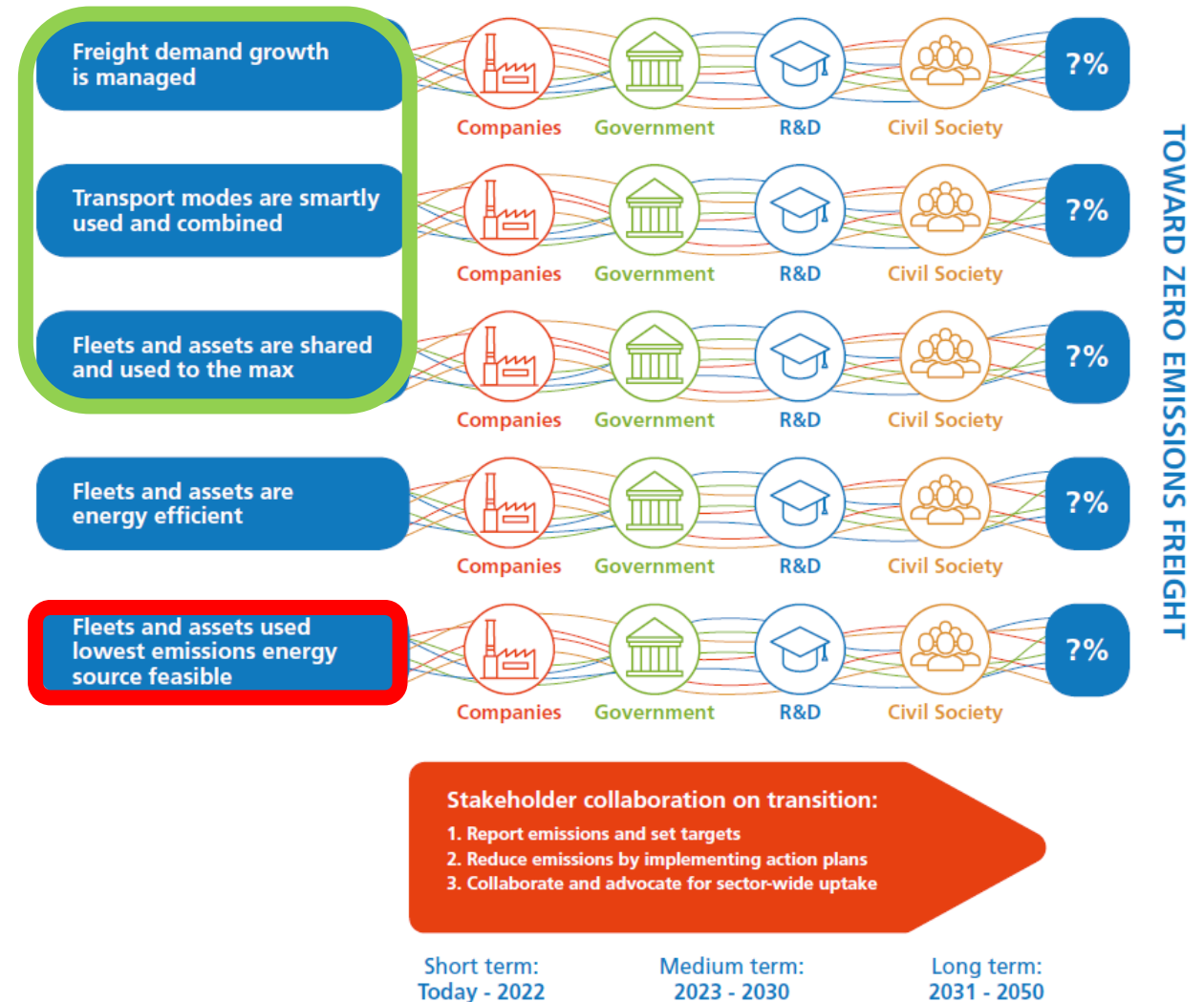
1. Low emissions fuels & vehicles

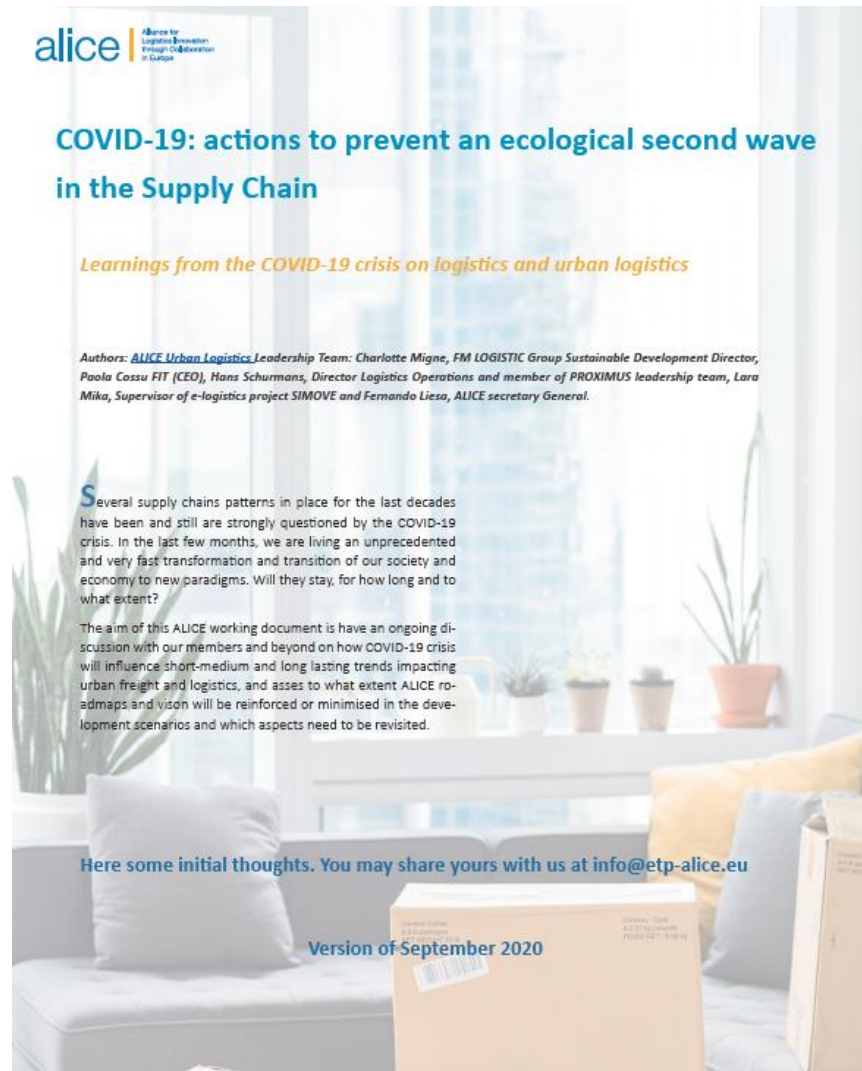
TG1 Focus 2020-2021 [link](#)

2. Logistics System



Download: [ALICE Roadmap](#)





- Supply chain regionalization, relaxation just in time
- E-commerce and home delivery booming
- Resilient, agile, adaptable supply networks: regaining supply chain sovereignty
- Accelerated digitalization
- Growing need for environmentally and socially responsible solutions
- Unusual lack of congestion and easier access to parking but will this last forever?
- Toward a paradigm shift: shared an interconnected logistics networks based on low and zero emission transport solutions

joint document on urban freight strategies and identify collaboration opportunities

Towards zero city logistics 2030



New in 2020:



Running:

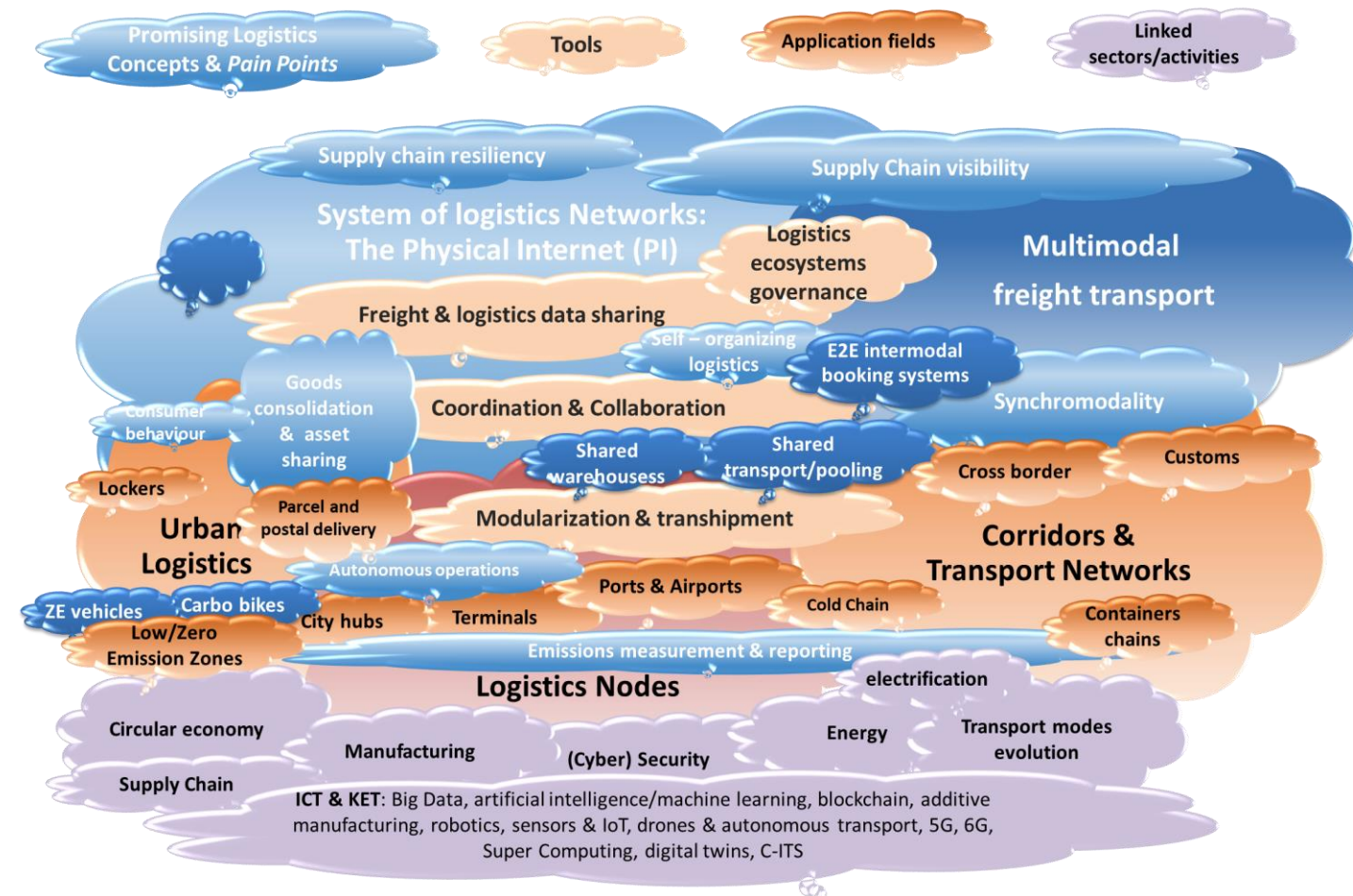


Finished:



- Assess progress made in key “Logistics Clouds”
- Valorize R&I projects results facilitating access to outcomes and implementation cases
- Define and workout remaining R&I challenges
- Linking technology, process and organizational innovation
- Creating The Innovation Marketplace

Logistics Clouds



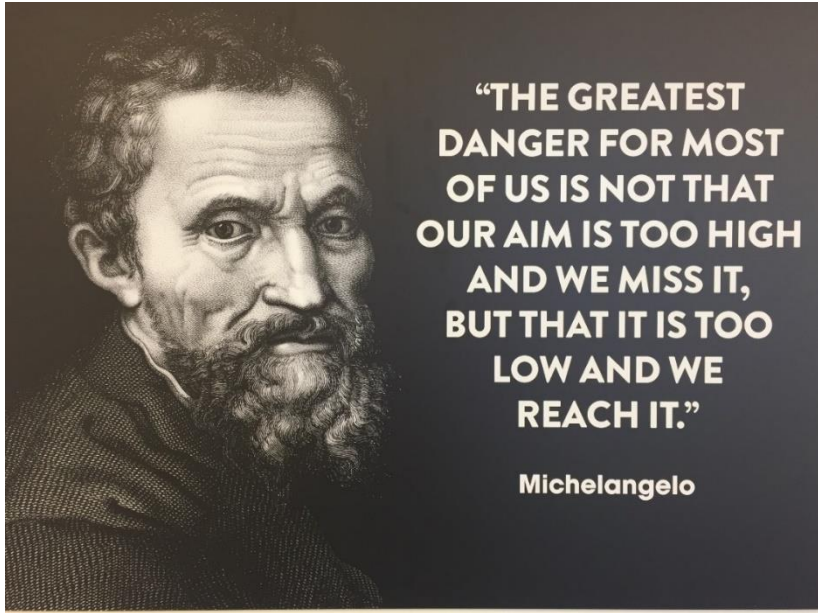
With the support of our members!

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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

And you?





“THE GREATEST
DANGER FOR MOST
OF US IS NOT THAT
OUR AIM IS TOO HIGH
AND WE MISS IT,
BUT THAT IT IS TOO
LOW AND WE
REACH IT.”

Michelangelo

alice

Alliance for
Logistics Innovation
through Collaboration
in Europe

Thank you!

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

Source: President Abraham Lincoln



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