INTERNATIONAL UNION OF RAILWAYS

FREIGHT RESILIENCE, RAILWAY LOGISTICS & THE NEW CHALLENGES FOR ITS REPOSITIONING

African Railway Thursdays

7th webinar

24 February 2022

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Programme

OFFICIAL OPENING (11h-11h15)

Mr Mohamed Rabie Khlie, Chairman UIC Africa, UIC Vice-Chairman

PANEL N°1 (11h15-11h45): Railway freight in the centre of global logistics challenges

Moderator: Mr Philip Van Den Bosch, UIC Freight Senior Advisor

Resilience of Rail Freight in case of Global Pandemic
Mr Philip Van Den Bosch, UIC Freight Senior Advisor

Modal shift as key lever to realise COP21 Paris goals 2050
Ms Christine Vanoppen, Chairman of the UIC Sustainability group

Q/A Session

PANEL N°2 (11h45-12h45): Railway Network experience

Moderator : Mr Saïd Chandid, UIC Africa Regional Office

Achieving Favourable Conditions for Rail Freight
Mr Alfred Pitnik, Head of Public and Cargo Affairs, ÖBB-Holding AG

Connecting to the hinterland as part of the Rail freight policy of the Port of Zeebruges
Mr Johan Abel, Chief Officer Logistics and Sales, Port Authority Zeebrugge

ONCF Freight & Logistics
Mr Oubrahim Mohammed, ONCF Commercial Director Freight

Supply Chain Resilience by the introduction of Multimodality – Cato Ridge Dry Port
Mr Warwick Lord, CEO, Cato Ridge Consortium

Ethio-Djibouti Railways Experience
Mr Tilahun Sarka, DG EDR

Q/A Session

Webinar Break

PANEL N°3 (13h-13h30): Tools & Methodologies

Moderator: Mr Philip Van Den Bosch, UIC Freight Senior Advisor

Tools to develop freight transport and logistics in a sustainable way
Mr Lukasz Wyrowski, UNECE

Corridors as enable for international logistic development
Mr Philip Van Den Bosch, UIC Freight Senior Advisor

Q/A Session

CONCLUSIONS (13h30-13h35)

Mr Saïd Chandid, UIC Africa Regional Office

OFFICIAL OPENING

Mohamed Rabie Khlie

SPEECH FROM THE PRESIDENT OF THE UIC AFRICA REGION AND VICE-PRESIDENT OF THE UIC

*The rail freight and the **GLOBAL** logistics*

A relaunch under the sign of eco-mobility…

3,5 x
less external costs

9 x
less CO_2 emissions

6 x
less energy consumed

8 à 10%
Market share

Rail freight, beneficial for the planet: on average, and per tonne km transported,
It represents, compared to the road, remarkable performance, but…

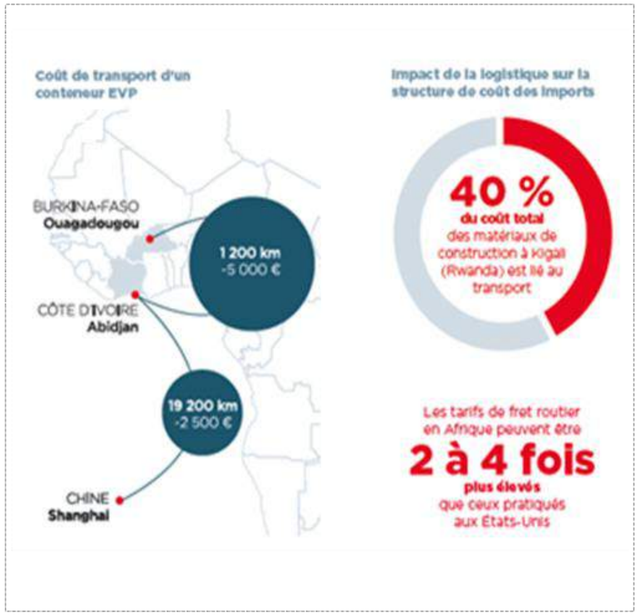
*Logistics in **AFRICA**,*

a sector to be boosted in the face of emerging markets…

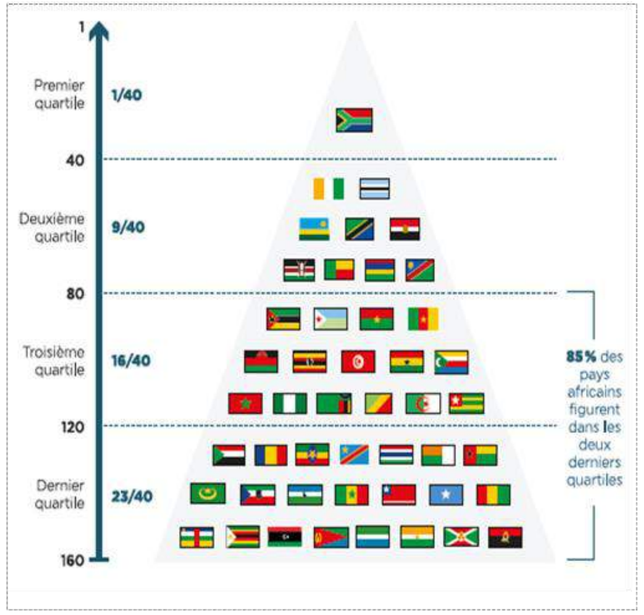
- 85% of ranked African states are in the bottom two quartiles of the Logistics Performance Index
- The equivalent of 1 to 2% of continental GDP is devoted to logistics: 42% of 2017 investments in infrastructure ($26.6 billion/8.89 in 2001)

- Landlocked countries suffer from deficient logistics
- Major continental logistics corridors are beginning to take shape, linking coastal countries to hinterlands

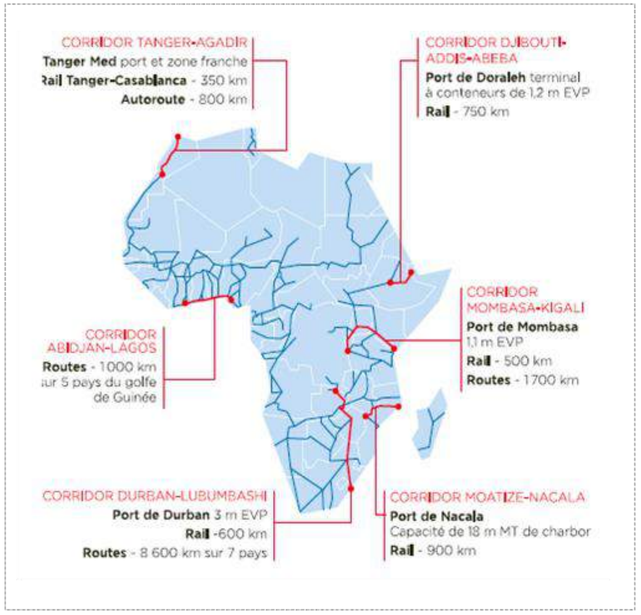
- Logistics services remain unsophisticated compared to emerging markets
- Logistics giants able to provide world-class solutions are gradually establishing themselves in Africa



Transport cost and logistics impact

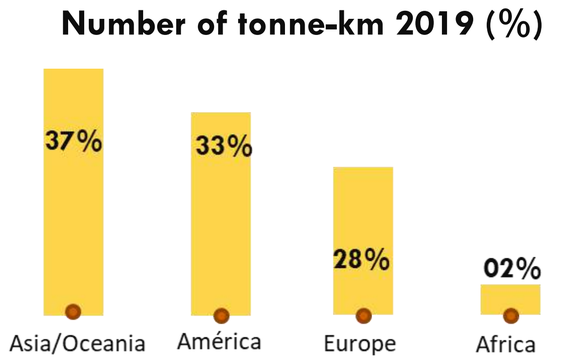


Positioning in the 2018 LPI ranking



Key logistics corridors developed

*Rail freight and logistics in **AFRICA**,*
brakes for its positioning…



- Deficiency in regulatory organs
- Sector regulatory deficit
- Moderate private sector involvement
- Lack of intermodality
- Strong competition

- Leverage for resource export
- Delay in professionalization
- Absence of ‘shift modal’ promotion
- Low network density
- Lack of maintenance

- Mixed positioning
- Market share losses
- Performance degradation
- Low fallout for communities
- Low competitiveness and reliability

*Rail freight and logistics in **AFRICA**,*
revitalization is needed…

Agenda 2063 as a new benchmark ‘the Africa we want’

The continent's integration process: ZLECAF, the largest free trade

Heavy factors of change that are reshaping the future and the place of rail

The development projects decided upon: continental TGV, PIDA programme…

Development of the competitiveness of the African economy and its positioning

3,3
Africa GDP
($ trillion)

1,2
Population Africa
(billlion)

30 to 40%
Value of imported products
corresponds to transport

*Rail freight and logistics in **MOROCCO,***

key component of the national logistics competitiveness strategy…

Become a transport and logistics operator capable of offering global and integrated logistics solutions (Door to Door))

- **Development, construction and operation of platforms**
- **Development of sector logistics plans**
- **Massification of flows within the ports**

Rail freight and logistics,

Time to decide to combine economic logic and ecological transition…

AUTHORITIES AND STAKEHOLDERS

- Establishment of regulatory authorities
- Promoting the modal shift and complementarity
- Adoption of regulatory and tax incentives
- Creation of integrated logistics operators
- Support for modal shift in ports
- HGV traffic regulation
- Internalization of external costs

COMPANIES/ RAILWAY OPERATORS

- Pursue restructuring/modernization
- intensify efforts of quality, flexibility
- Offer integrated multimodal solutions
- Accelerate digitization: production/services
- Promote sustainable mobility
- Development of expertise (partnerships)
- Develop multimodal hubs

Courageous measures for a structured, viable, reliable and competitive logistics activity

Panel 1: Railway freight in the Centre of Global Logistics Challenges

Moderator: Philip Van Den Bosch, UIC Senior Freight Advisor

Philip Van Den Bosch
UIC

Christine Vanoppen
UIC

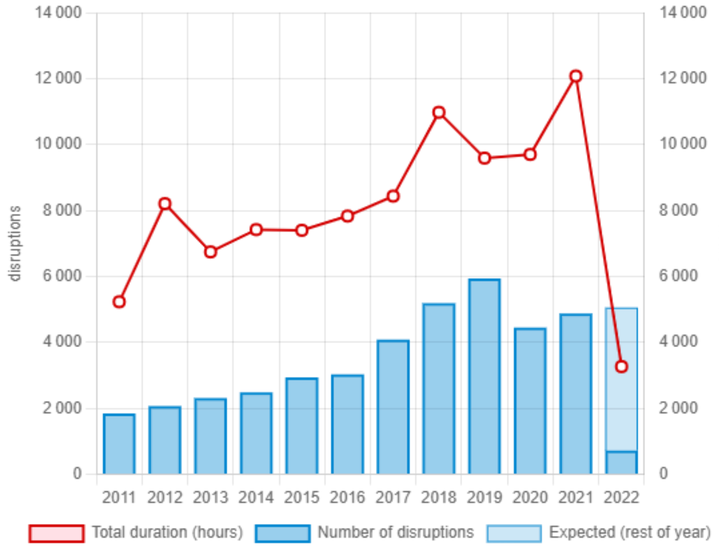
Resilience of Rail Freight in case of Global Pandemic

Philip Van den bosch – UIC Senior Freight Advisor

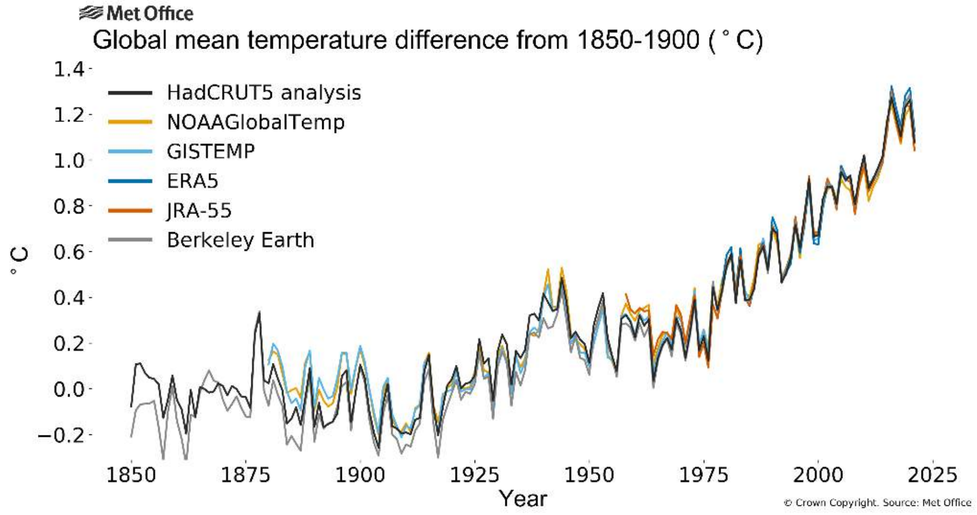
What are disruptions

Incidents	Leading to reduced frequency	Communication
Disturbance	Daily variations in operations	Robust operational set up
Disruptions	Failures of infrastructure, vehicles, engineering works and adverse weather conditions such as rain, snow storm, wind	Predictive maintenance Contingency planning
Disaster	Leading to temporary line or station closures; for shorter but often for a longer period in time	Contingency planning Prepare Mitigate

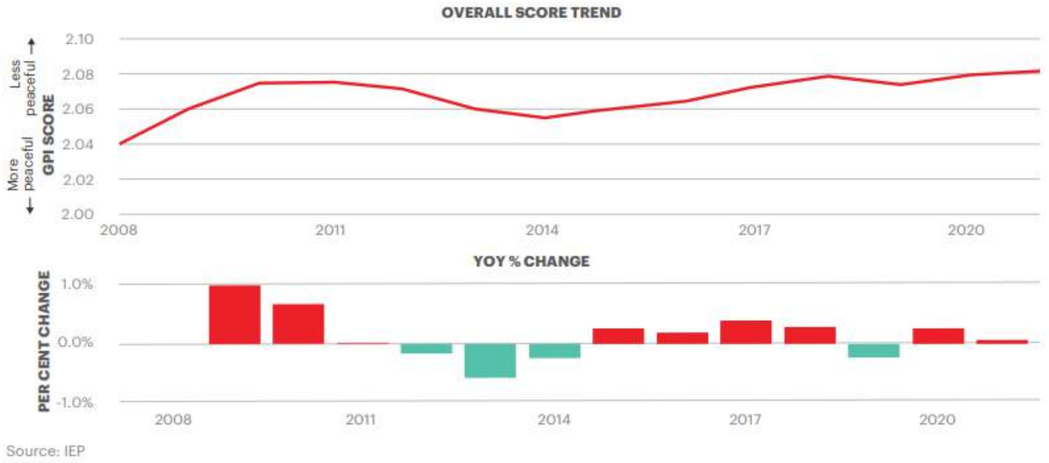
The theme of resilience is there to stay as the number of disruptions is likely to increase as well



Source: https://www.rijdendetreinen.nl/en/statistics



https://public.wmo.int/en/media/press-release/state-of-climate-2021-extreme-events-and-major-impacts



Source: IEP

What is resilience

Definition

The ability of a system, community or society exposed to hazards to resist, absorb, accommodate to and recover from the effects of a hazard in a timely and efficient manner, including through the preservation and restoration of its essential basic structures and functions. (UNISDR, 2009)

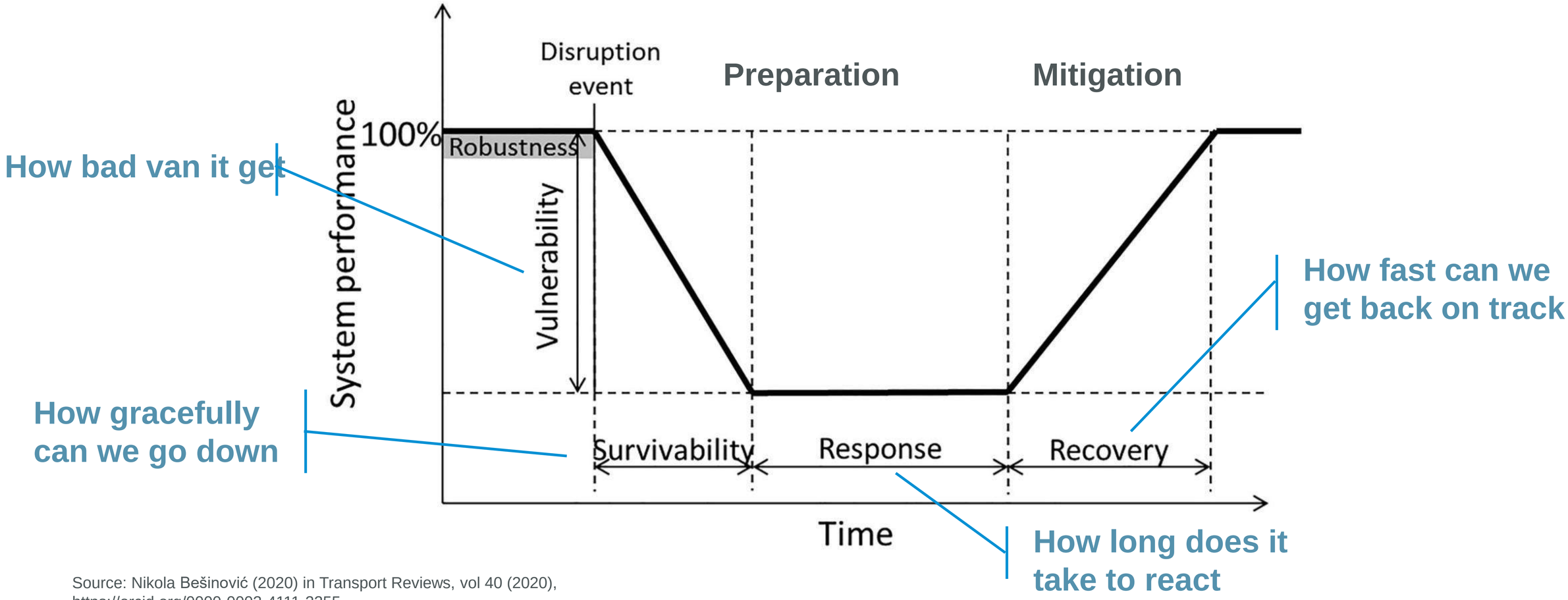
Common elements in similar definitions

- ✓ **Ability to recover quickly from a disruption**
- ✓ **Remaining system's performance during a disruption**
- ✓ **Described with four properties: robustness, redundancy, resourcefulness and rapidity**
- ✓ **A function of system's vulnerability against potential disruption and its adaptive capacity in recovering to an acceptable level of service within a reasonable timeframe after being affected**

What is resilience in a rail system

Definition

The ability of a railway system to provide effective services in normal conditions, as well as to resist, absorb, accommodate and recover quickly from disruptions or disasters



Source: Nikola Bešinović (2020) in Transport Reviews, vol 40 (2020), https://orcid.org/0000-0003-4111-2255

How to make the rail system more resilient

1. Quantify and measure
2. Digitize
3. Plan ahead – reduce the level of « unplanned » event
4. Streamline operational processes
5. Build a handbook for contingency management
6. Balance redundancy

References

Nikola Bešinović *http://orcid.org/0000-0003-4111-2255*

www.rijdenoptreinen.nl, accessed on 22.02.2022

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Thank you for your attention.

Modal Shift as key lever to realise COP21 Paris goals 2050

Ms. Christine Vanoppen; UIC Chairman of the sustainability group

Modal shift as a key lever to realise COP21 goals 2050

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Brussels

1.

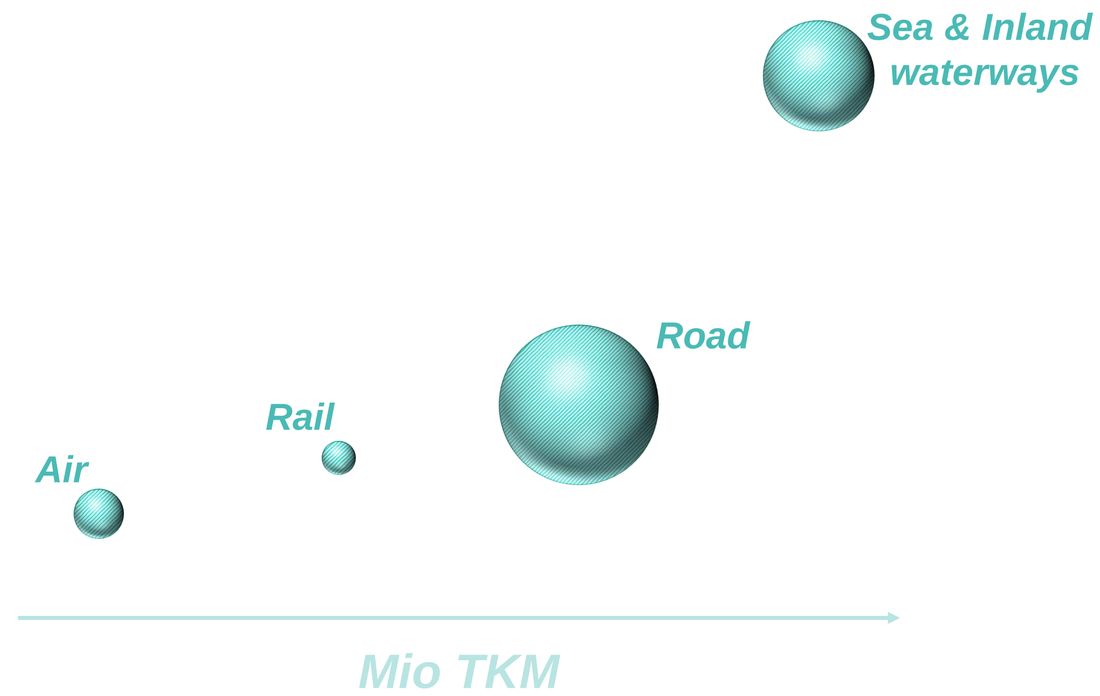
Freight Transport in Context

How do we move our freight ?

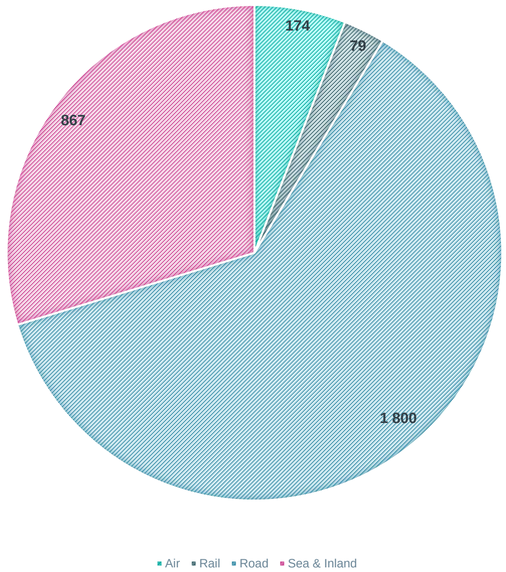
And where do the freight emissions come from ?

CO2 DIRECT EMISSIONS PER FREIGHT TRANSPORT MODE

FREIGHT MODES IN MIO TKM
THE SIZE REPRESENTS CO2 EMISSIONS



CO2 IN MIO TONNES



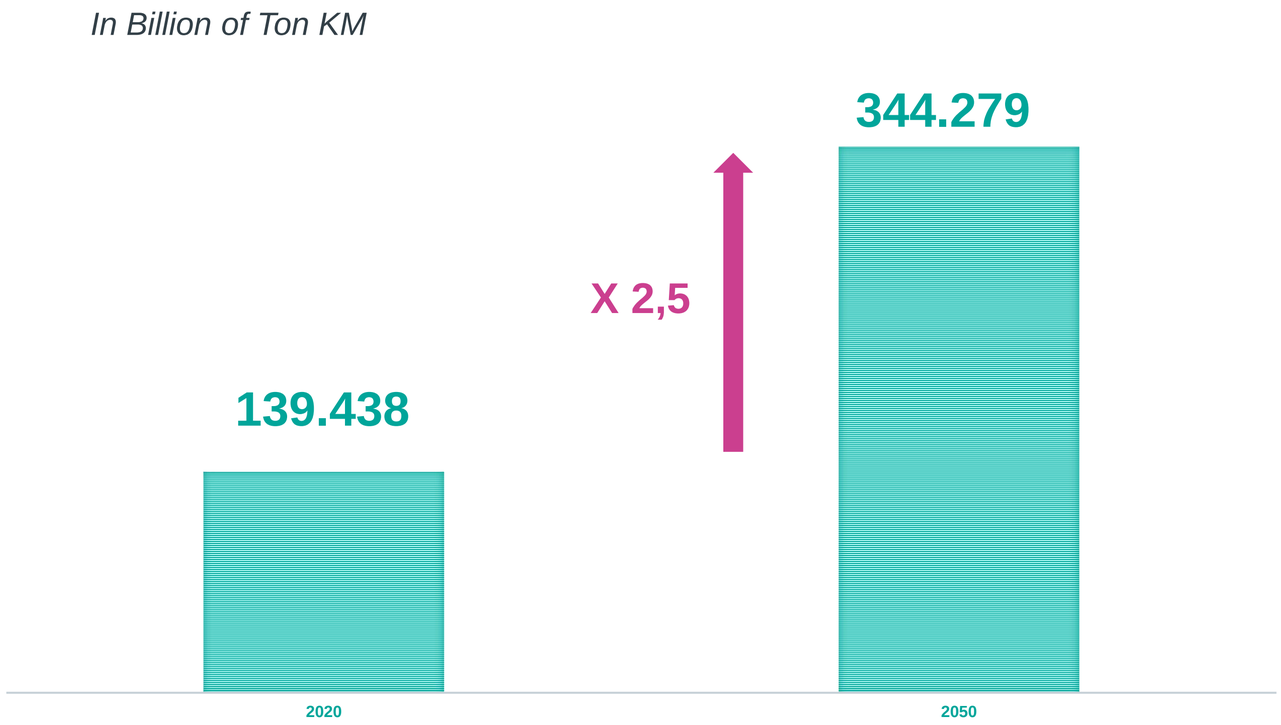
- *From https://climate.mit.edu/explainers/freight-transportation, consulted on February 16, 2022 based on The international transport forum - ITF Transport outlook 2019*

Freight transport demand evolution

*Under the current policy trajectory freight transport demand will increase **2,5 - fold** by 2050*

Population growth and increasing prosperity drive increased transport demand overall

This will impact CO2 emissions from freight transport when policy is not adjusted



- *ITF Outlook 2021 – Recover scenario, this is taking into account a recovery to pre-COVID levels, established economic principles, implemented and committed policy*

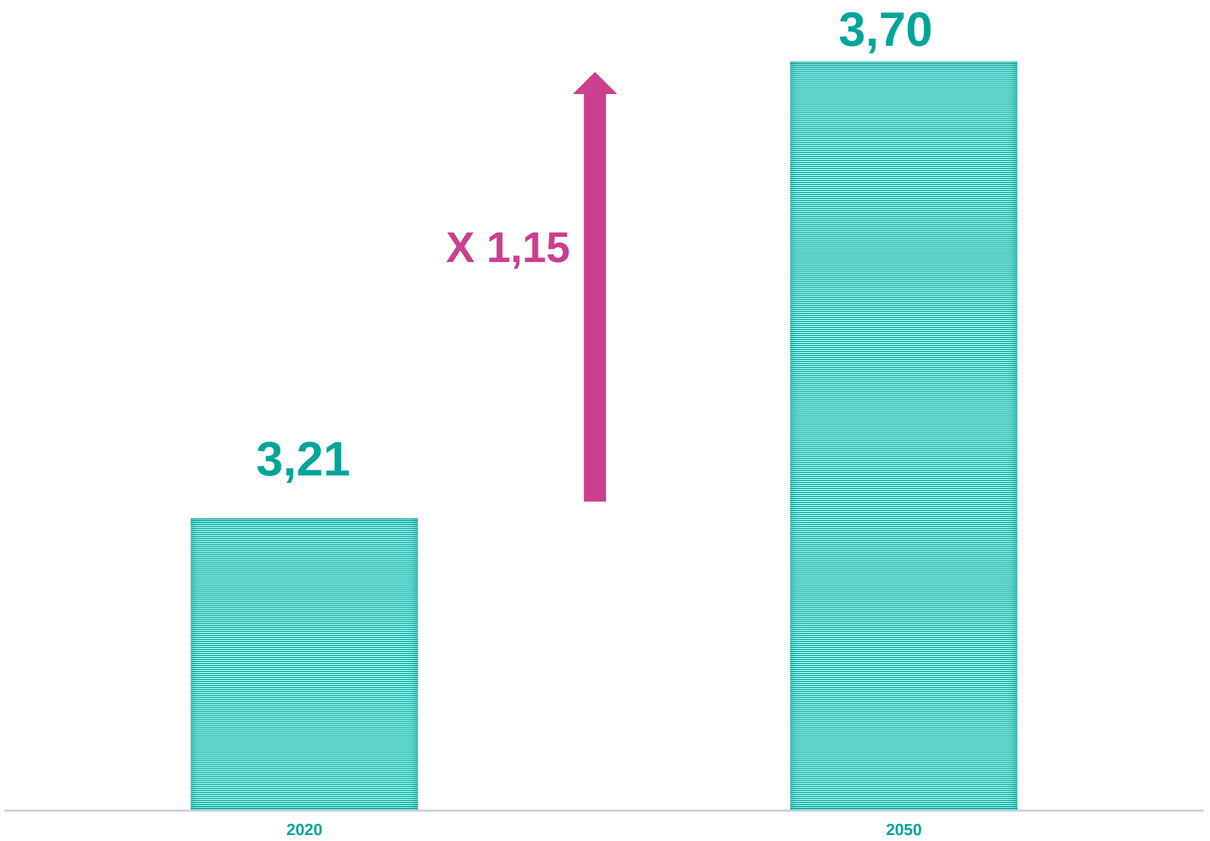
CO2 Emissions from freight transport

*Under the currently stated policies, freight transport CO2 emissions will increase **15%** by 2050*

The majority of the increase in direct CO_2 emissions is attributable to growing activity by heavy-duty vehicles, road freight in particular.

Increasing emissions from heavy-duty vehicles are nearly as large in magnitude as those from light-duty vehicles, aviation and waterborne transport combined.

Gigatonnes CO2 direct emissions (tank-to-wheel)

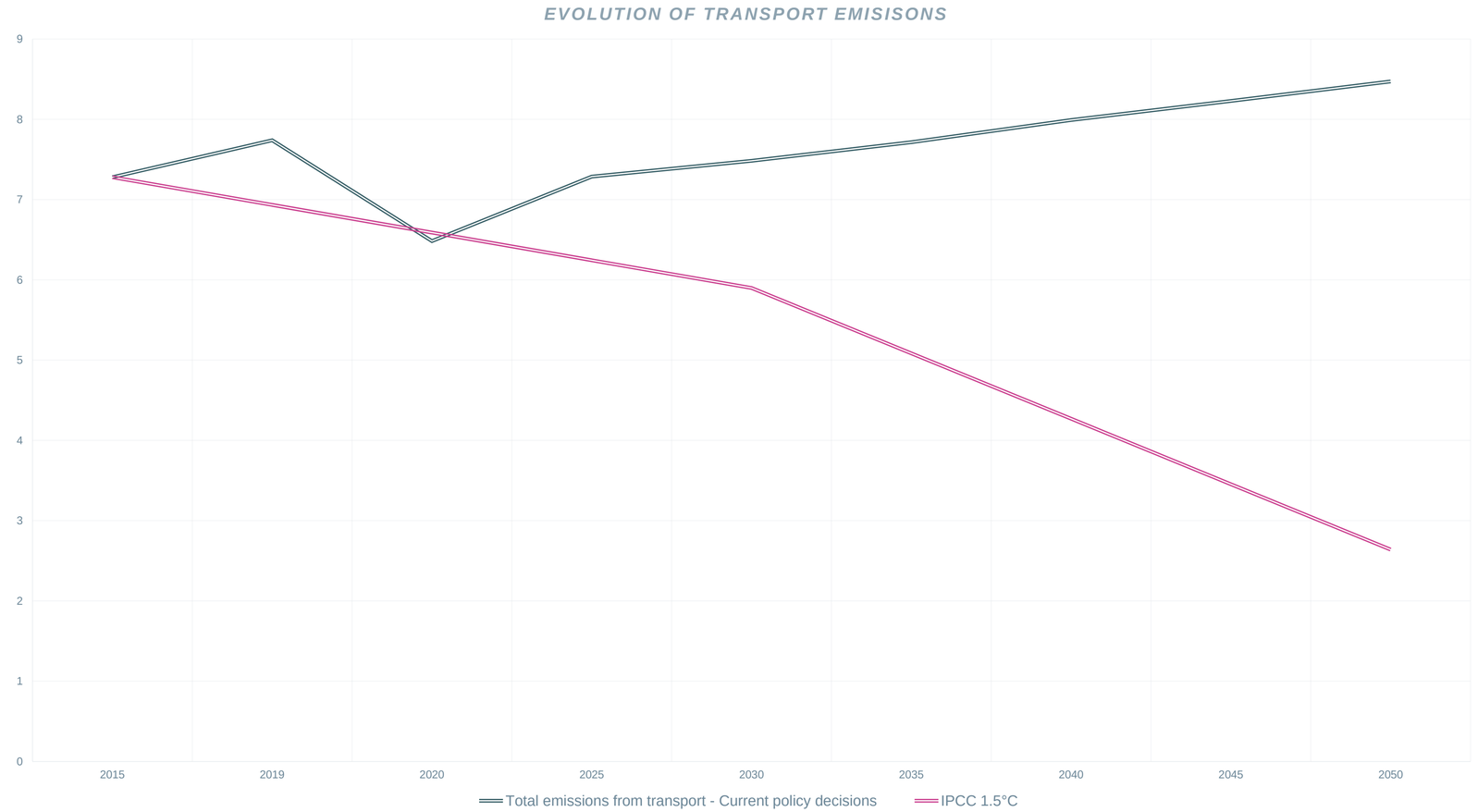


- *IEA 2019, The Future of Rail,*
- *ITF Outlook 2021 – Recover scenario, this is taking into account a recovery to pre-COVID levels, established economic principles, implemented and committed policy*

Transport emissions target reduction

When the objective is to reach the Paris agreement goals of global warming limited to 1,5 °

In giga-tonnes CO2 direct emissions (tank-to-wheel)



IPCC 1.5˚C represents the emissions levels needed to limit warming to 1.5˚C as introduced by the IPCC (2018)

- *Based on ITF Transport Outlook 2021 - © OECD 2021, chapter 2, Figure 2.9. CO2 emissions for urban passenger, non-urban passenger and freight transport to 2050, Version 1 - Last updated: 05-May-2021*

/2.

What needs to be done ?

Current policy proposals

Leaves the potential of modal shift as such, undervalued

- Freight transport receives less attention from policy makers than it deserves, given its cross-border complexities and commercial nature.
  - *even though freight is responsible for more than 40% of all transport CO2 emissions.*
- Opportunities for freight decarbonisation arise from the greater emphasis on resilient supply chains in the aftermath of the Covid-19 pandemic.
- Faster digitalisation and automation can help to optimise logistics and reduce its carbon intensity.
- Stimulus packages can
  - *include investments in alternative fuel production, distribution and supply infrastructure.*
  - *they can also boost the availability of multimodal solutions and their competitiveness.*
- The renewal of fleets with newer, cleaner vehicles is crucial.

- *ITF Transport Outlook 2021, Chapter 5*

Modal shift requires a multi-disciplinary approach

But the main argument remains cost

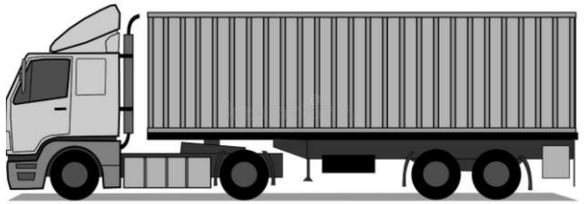
The Cost Gap *

1. Customers require door to door services, hence extra first & last mile costs
2. Rail freight requires consolidation of volumes, hence extra shunting, transshipment and storage costs
3. Rail freight internalizes its external cost from CO2 emissions whereas road freight only to a limited extent

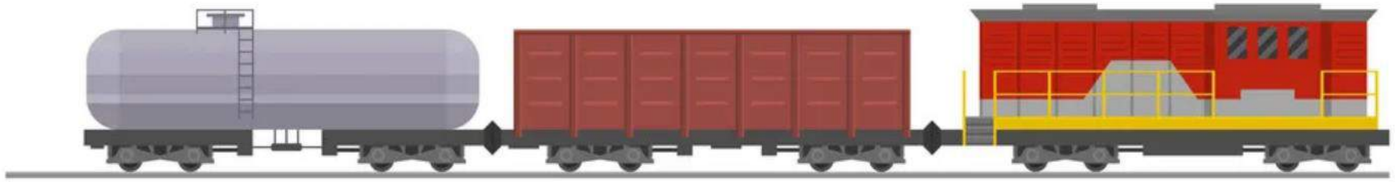
** Focus is here on road to rail modal shift*

Rail freight requires consolidation

*As one train represents on average 50 trucks **



X 50 =



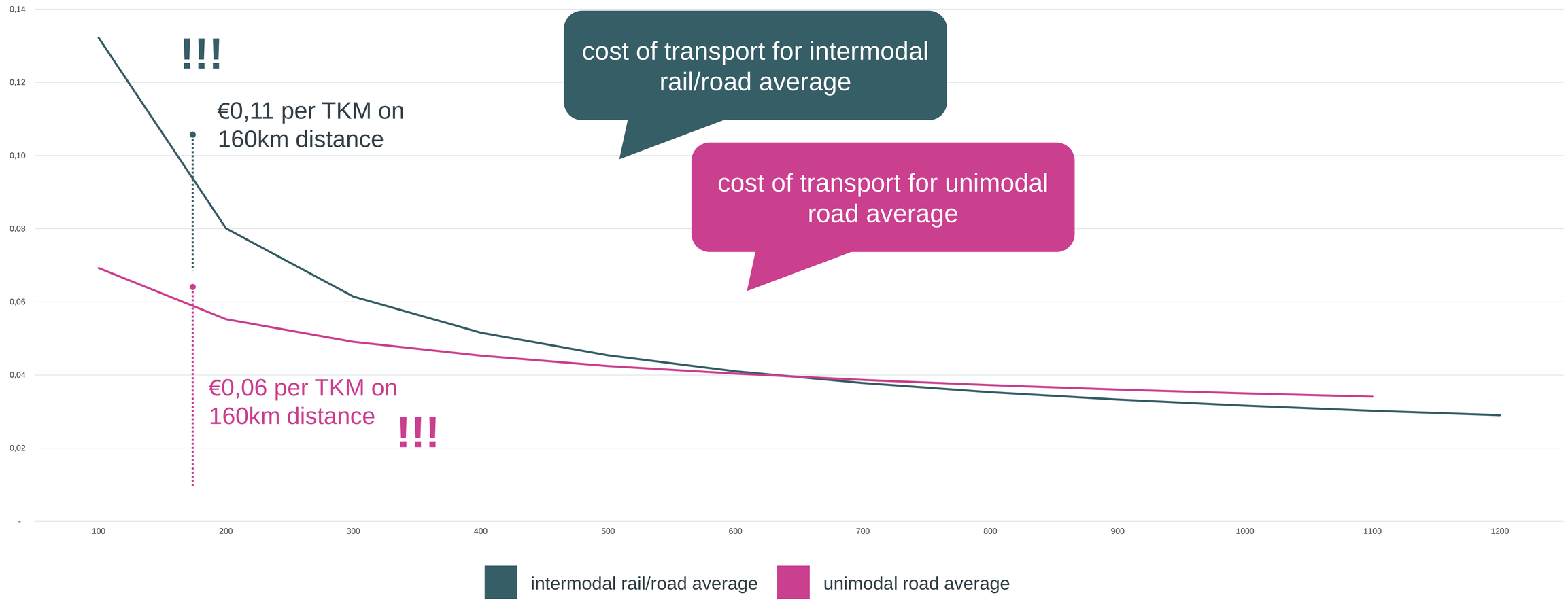
- Requiring consolidation / massification to get large volumes
- This involves extra costs for last / first miles, investment in the feeder network, shunting, transhipment
- Those can be absorbed on long distance, but not for distances shorter than 300-500 km.

** Measured on average for Belgium and this is highly dependent from local / national circumstances*

The cost GAP on the short distance between multimodal and trucking in EU

cost functions by distance

in € per ton-kilometer & km



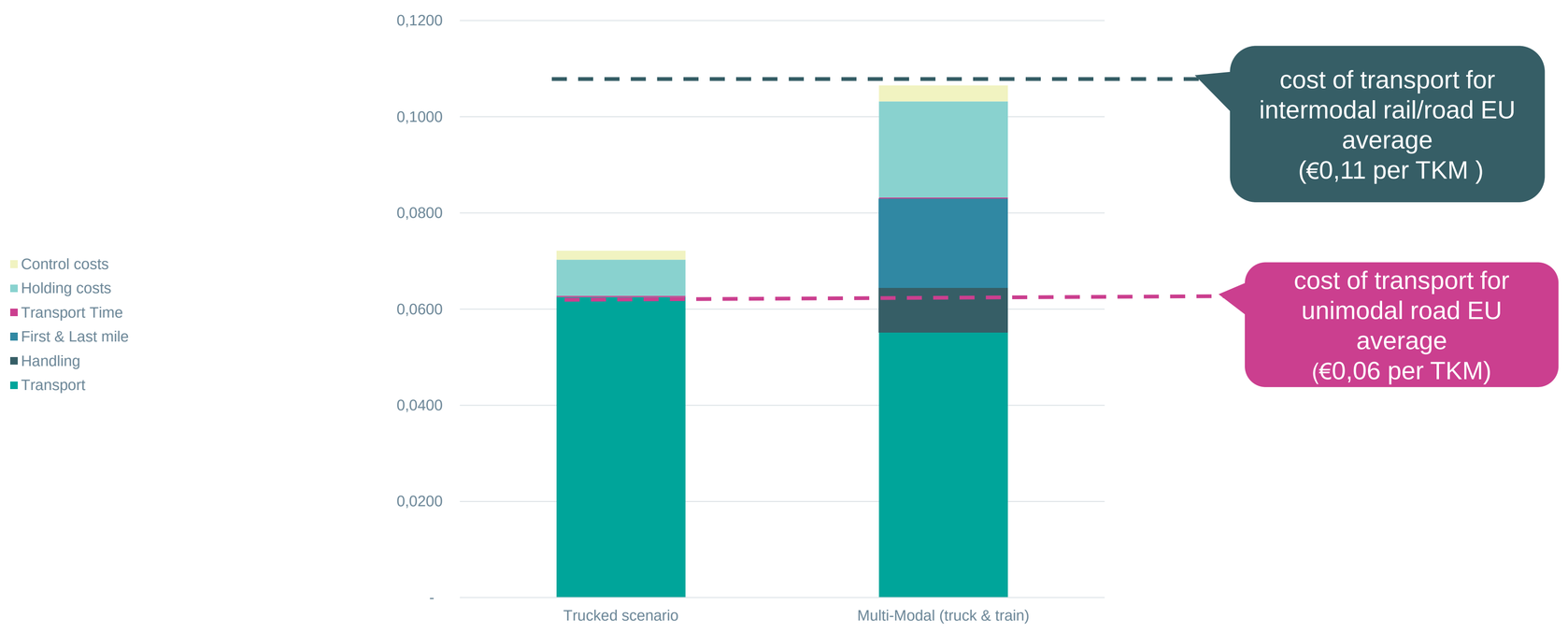
Source: Calculated based on Zgonc et al., (2019), The impact of distance on mode choice in freight transport, European Transport Research Review

The cost GAP between multimodal and trucking on short distance is due to costs associated with the consolidation of volume

As an example: the Belgian case

Total logistics cost - In € per Ton KM

Intermodal – Average distance of 160 km



Average cost gap in Belgium smaller than in EU (probably) due to dense network of rail & roads

- *Based on Vannieuwenhuyse, B., et al, (2019), Haalbaarheidsstudie maatregelenpakket voor een versnelde modal shift naar het goederenspoorvervoer, in opdracht van de Vlaamse overheid, Departement Mobiliteit en Openbare Werken, Afdeling Beleid, ir. Ilse Hoet*

A de-facto charging of the carbon cost

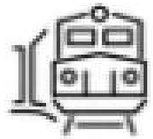
An example : the European case

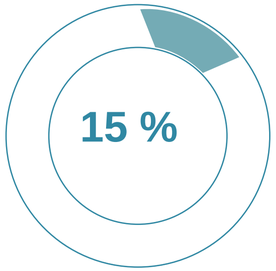
- Approximately 55% of railway lines in Europe are electrified.
- These lines carry 80% of rail transport across Europe
- EU railway companies are amongst the major users of electricity.
- According to the International Energy Agency (IEA), 40% of the electricity mix used by railways in Europe is low-carbon.
- The EU rail sector today pays over €110 million/year for its CO2 emissions generated by electric traction.
- According to the new ETS proposal, railway companies might reach a level of €370 million/year

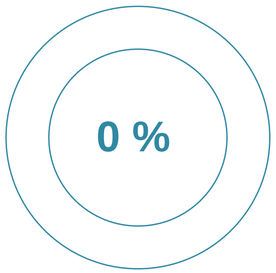
- *Source: CER – ETS Fact Sheet, 2021*

A de facto charging of the carbon cost

Rail's high degree of electrification, constitutes an important cost disadvantage vis à vis road freight transport – An example : the European case







Electric rail is fully included in the ETS

Road and aviation are not.

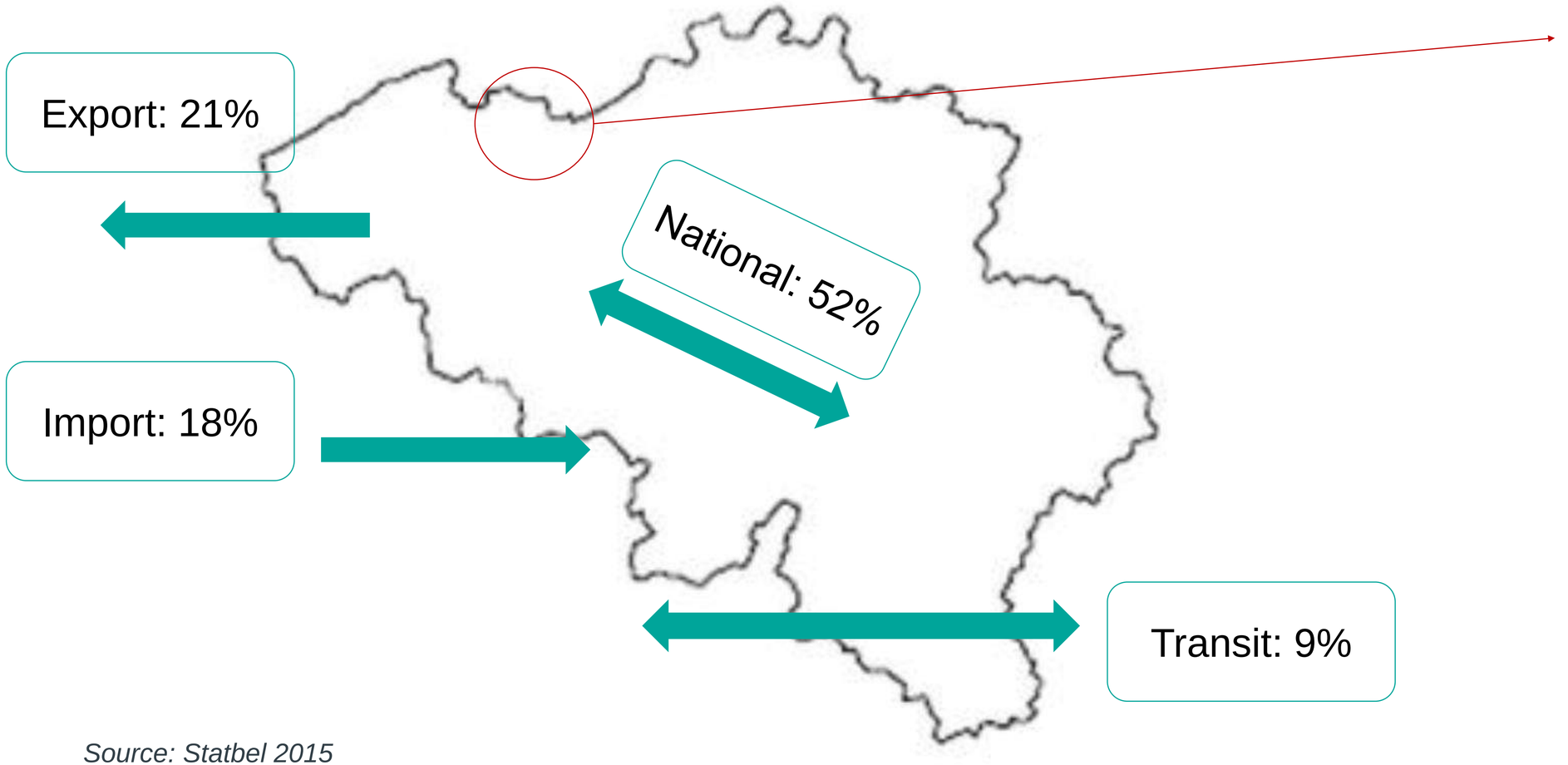
This unequal treatment of the carbon charges results in an important (relative) price distortion that will only aggravate in the near future with surging carbon prices

- *CER – ETS Fact Sheet, 2021*

/3.

A Belgian case study

Current road transport in Belgium is primarily < 300 km…

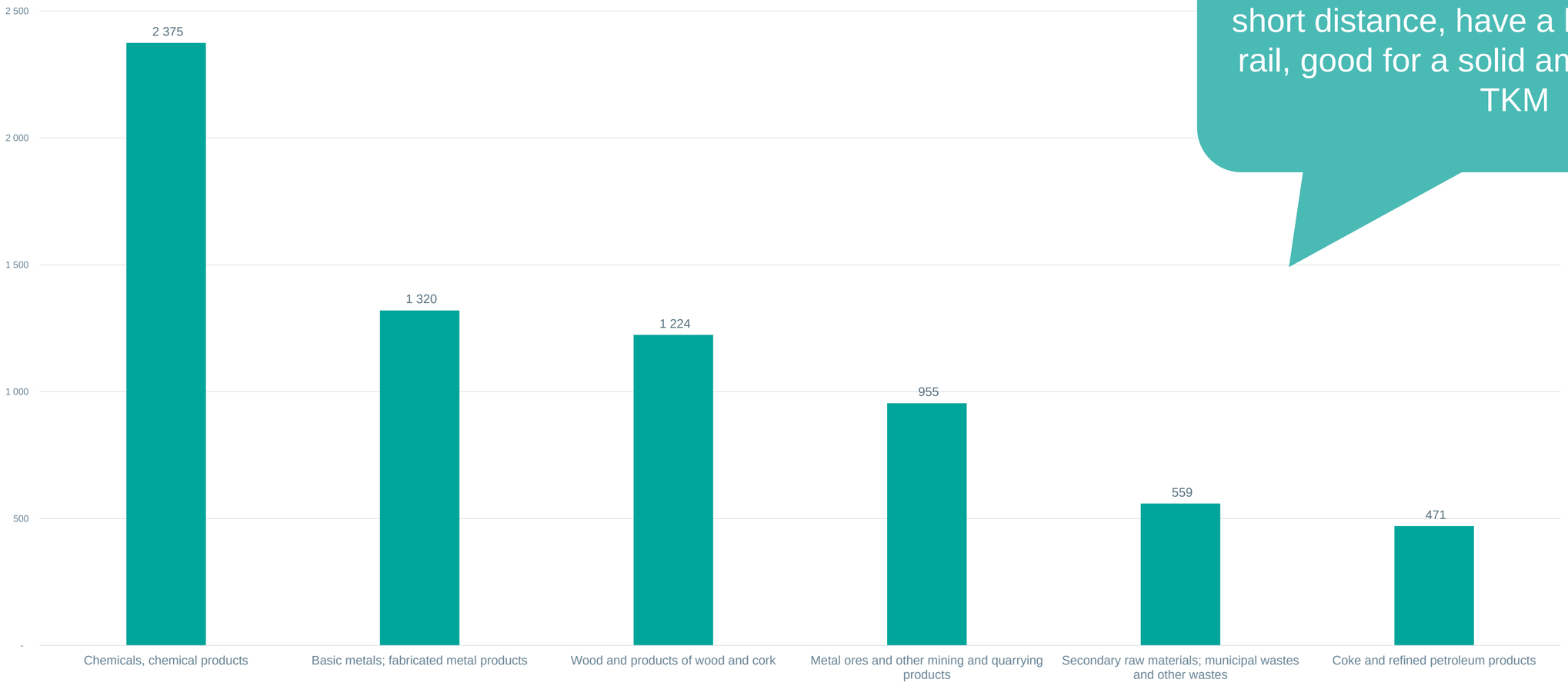


For instance, 69 % of the maritime containers trucked from the Port of Antwerp stay in Belgium

Source: Statbel 2015

12% of BE road transport is on short distance with high rail affinity

Product transported by road within the 100 - 300 KM distance category Mio Ton KM



12% of products, transported on the short distance, have a high affinity with rail, good for a solid amount of 6,9BN TKM

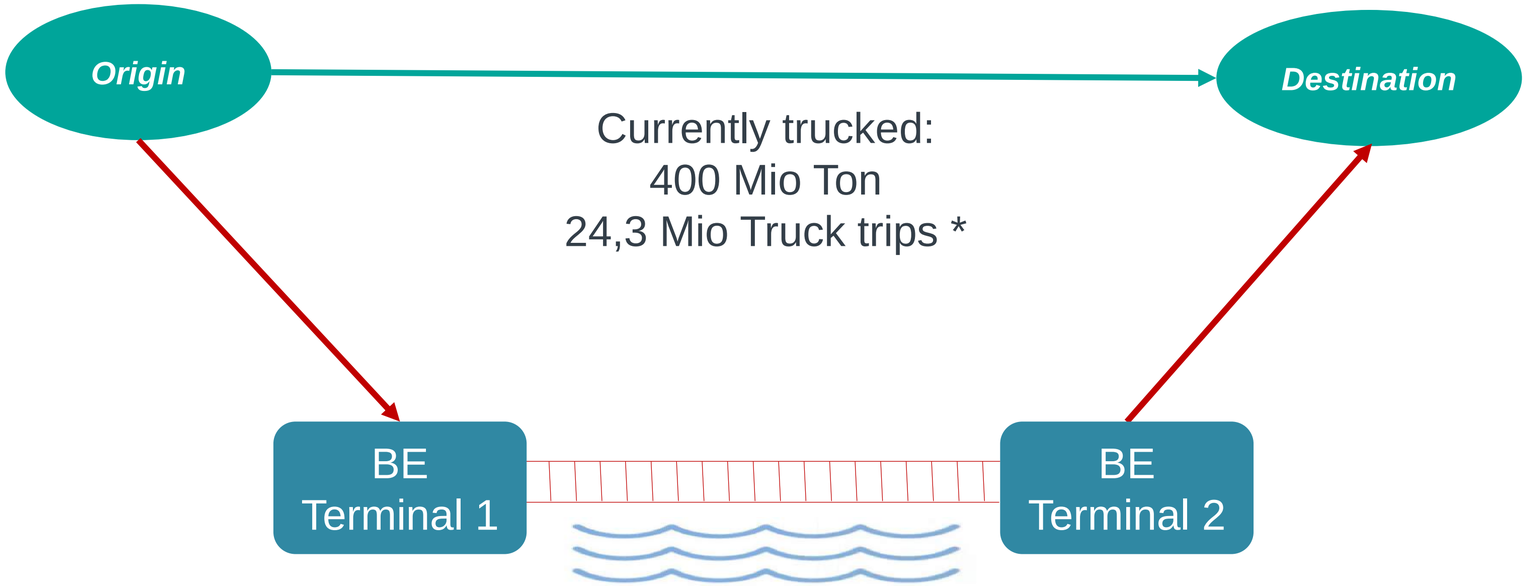
* TKM = Ton Kilometer
** by NST

The case study: concept & data analysis

First & last miles (f& l M) are trucked, the long haul is put on rail or barge

Trucked scenario

Modal shifted scenario



Methodology

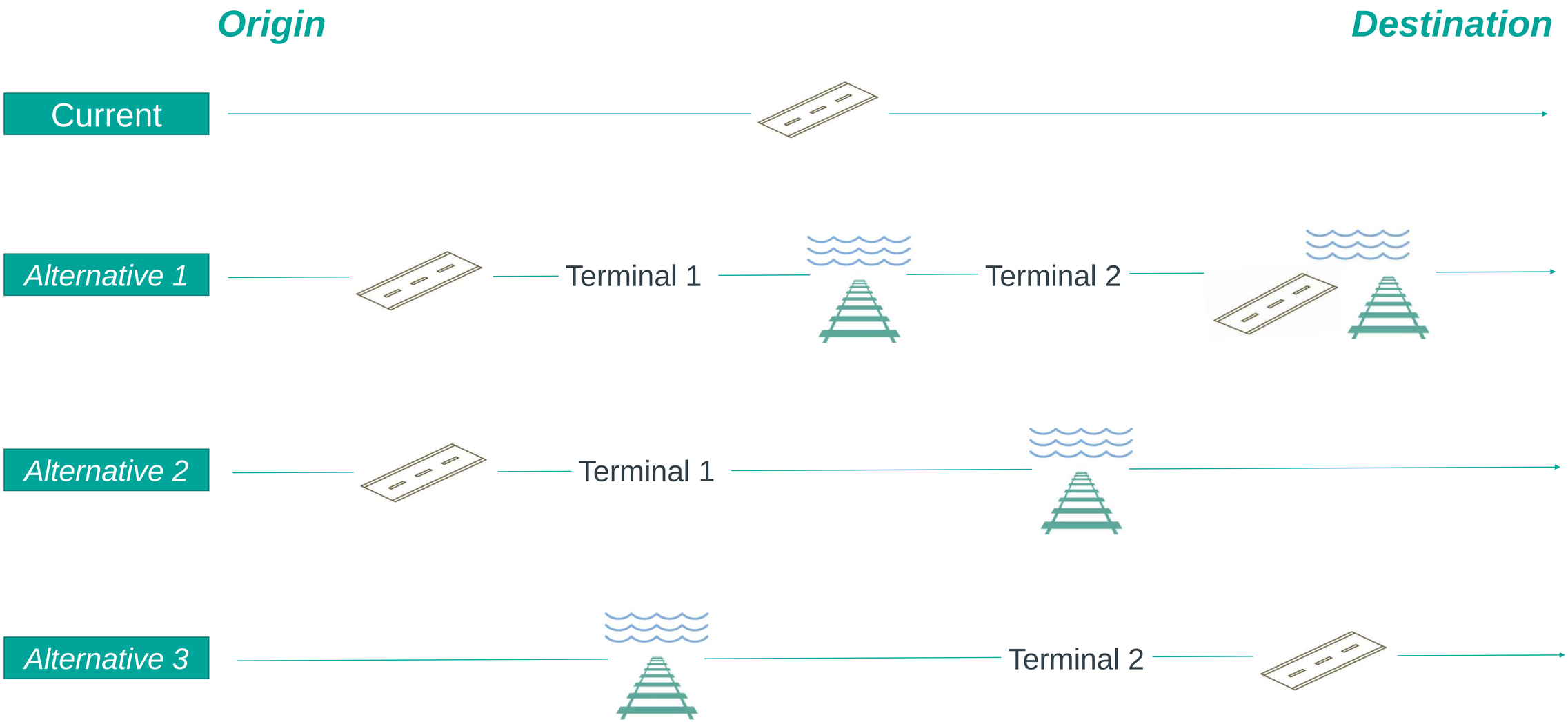
- Trucked traffic data 2015 per NST & NUTS 3 (Statbel).
- Distances calculated based on the NUTS3 latitude & longitude coefficients
- Load factors per NST (TU Delft) used to derive the number of trucked trips
- Assumed degree of containerisation potential based on OakTrees' assessment of affinity with rail per NST code:

• High affinity	60 %
• Affinity	30 %
• Grouped goods (NST 18)	10 %
• Low affinity	0 %

** Excluding transipments*

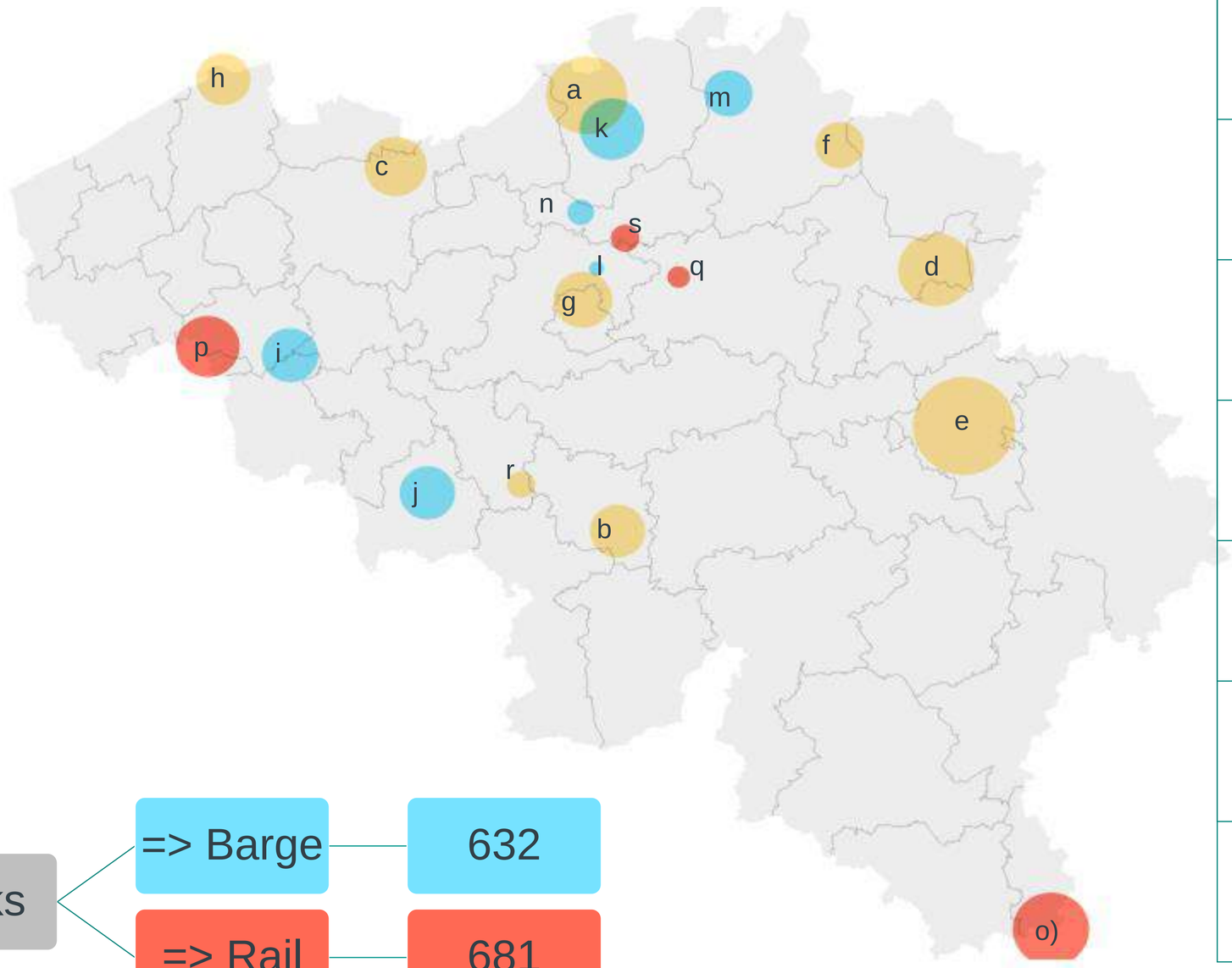
Hence 3 alternative scenario's

That involve a multi-modal cooperation



The potential

In terms of truck trips modal shifted



Trucks		
	=> Barge	632
	=> Rail	681

Trimodal

- a) Antwerp
  - •Rail: 120 / 113
  - •Barge: 26 / 14
- b) Charleroi
  - •Rail: 29 / 39
  - •Barge: 16 / 37
- c) Ghent
  - •Rail: 38 / 39
  - •Barge: 56 / 26
- d) Genk
  - •Rail: 61 / 51
  - •Barge: 62 / 66
- e) Liège
  - •Rail: 107 / 103
  - •Barge: 34 / 197
- f) Mol & Meerhout
  - •Rail: 32 / 30
  - •Barge: 18 / 12
- g) Brussels
  - •Rail: 29 / 38
  - •Barge: 44 / 27
- h) Zeebrugge
  - •Rail: 26 / 31
  - •Barge: 33 / 26

Barge

- i) Avelgem
  - 67 / 64
- j) Ghlin
  - 64 / 61
- k) Deurne
  - 120 / 48
- l) Grimbergen
  - 3 / 3
- m) Beerse
  - 54 / 37
- n) Willebroek
  - 19 / 6
- q) Herent
  - 16 / 8

Rail

- o) Athus
  - 136 / 113
- p) Rekkem
  - 72 / 88
- r) La Louvière
  - 12 / 16
- s) Muizen
  - 16 / 20

The return on investment to society

*We can take **1.300.000 truck trips** off the road with a **handling cheque of € 40 per unit put on rail or barge***

+1.919 million TonKm shifted per year

(8% of all trucked volumes)

1.000 hours of traffic saved per day

€ 160 million external costs saved

- *Analysis Lineas*

Support budgets & modal shift in leading European countries

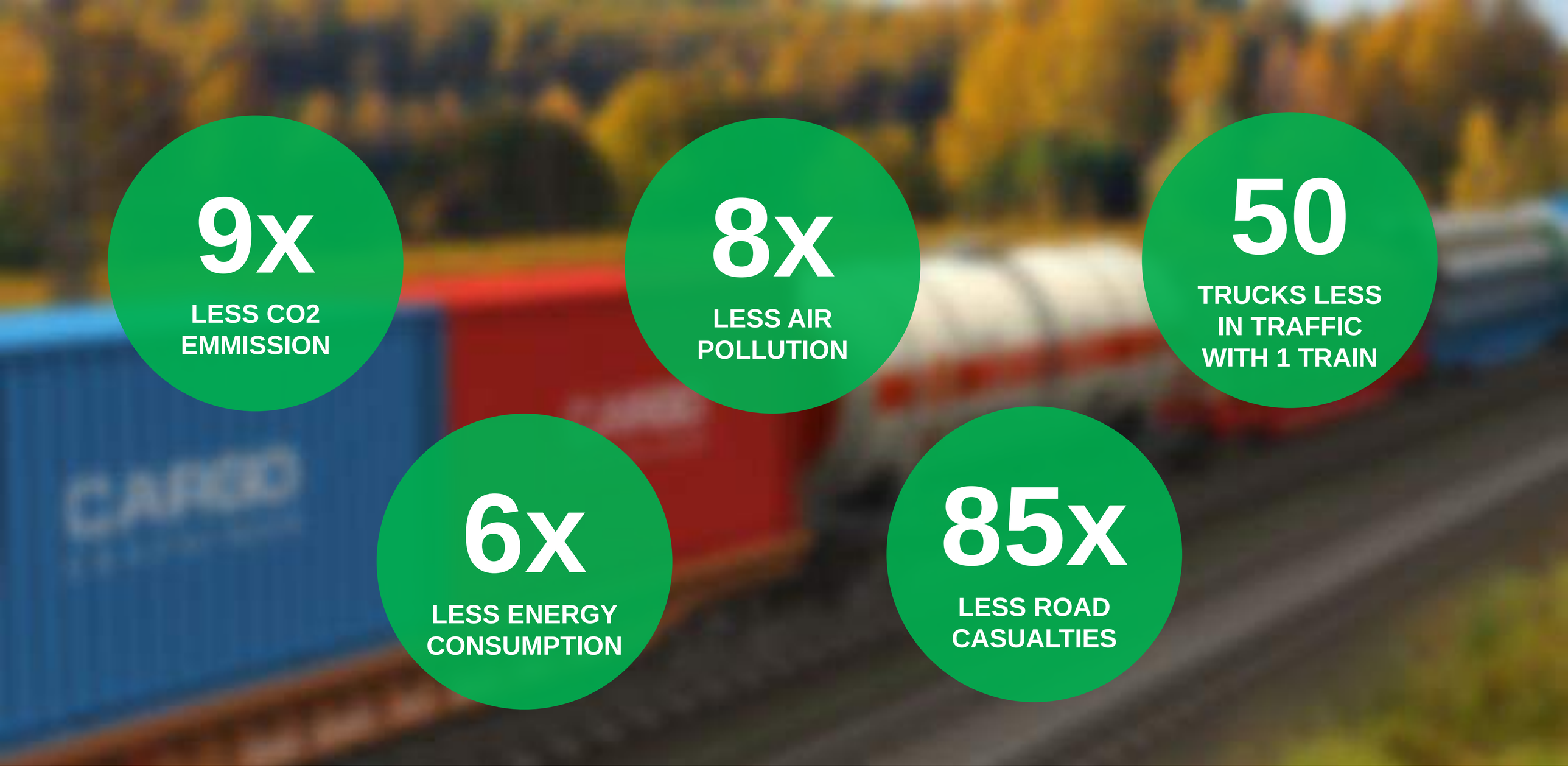
Belgium risks to miss the train in Europe

	Modal share	€ Moi per year	Bln Ton KM / Year on rail	Subvention per Bln Ton KM	
Zwitserland	35%	259	11,7	22,2	The Heroes
Austria	32%	310	22,3	13,9	
Germany	18%	563	112,2	5,0	Shaping up
Italy	14%	100	22,3	4,5	
France	10%	195	33,4	5,8	
Belgium	9%	17	7,3	2,4	Lagging behind
Netherlands	6%	15	6,5	2,3	

(1) *Annual budgets for non-infrastructure support mechanisms such as: reduction of TAC, SWL and Intermodal operational support, support to operators for development of connections, excluding the temporary Corona related support – Status mid 2021*

4.

Beyond CO2 emissions



CONTRIBUTING TO CLIMATE, ENVIRONMENT & SAFETY GOALS

IT‘S NOT AN INVESTMENT. IT'S A SAVING.

AVOID +90.000 TRUCKS

AVOID +1.5 MILLION TONS OF CO_2 / YEAR

AVOID +2.000 TONS OF FINE PARTICLES

MORE THAN € 1.000 MILLION VALUE CREATION THROUGH SOCIETAL COSTS AVOIDED & ECONOMIC VALUE ADDED

THANK YOU !

Panel 2: Railway networks' experiences

Moderator: Mr Saïd Chandid, UIC Africa Regional Office

Alfred Pitnik
ÖBB Holding

Johan Abel
Port Authority Zeebrugge

Oubrahim Mohammed
ONCF

Warwick Lord
Cato Ridge Consortium

Tilahun Sarka
EDR

Achieving favourable conditions for rail freight transport in Austria

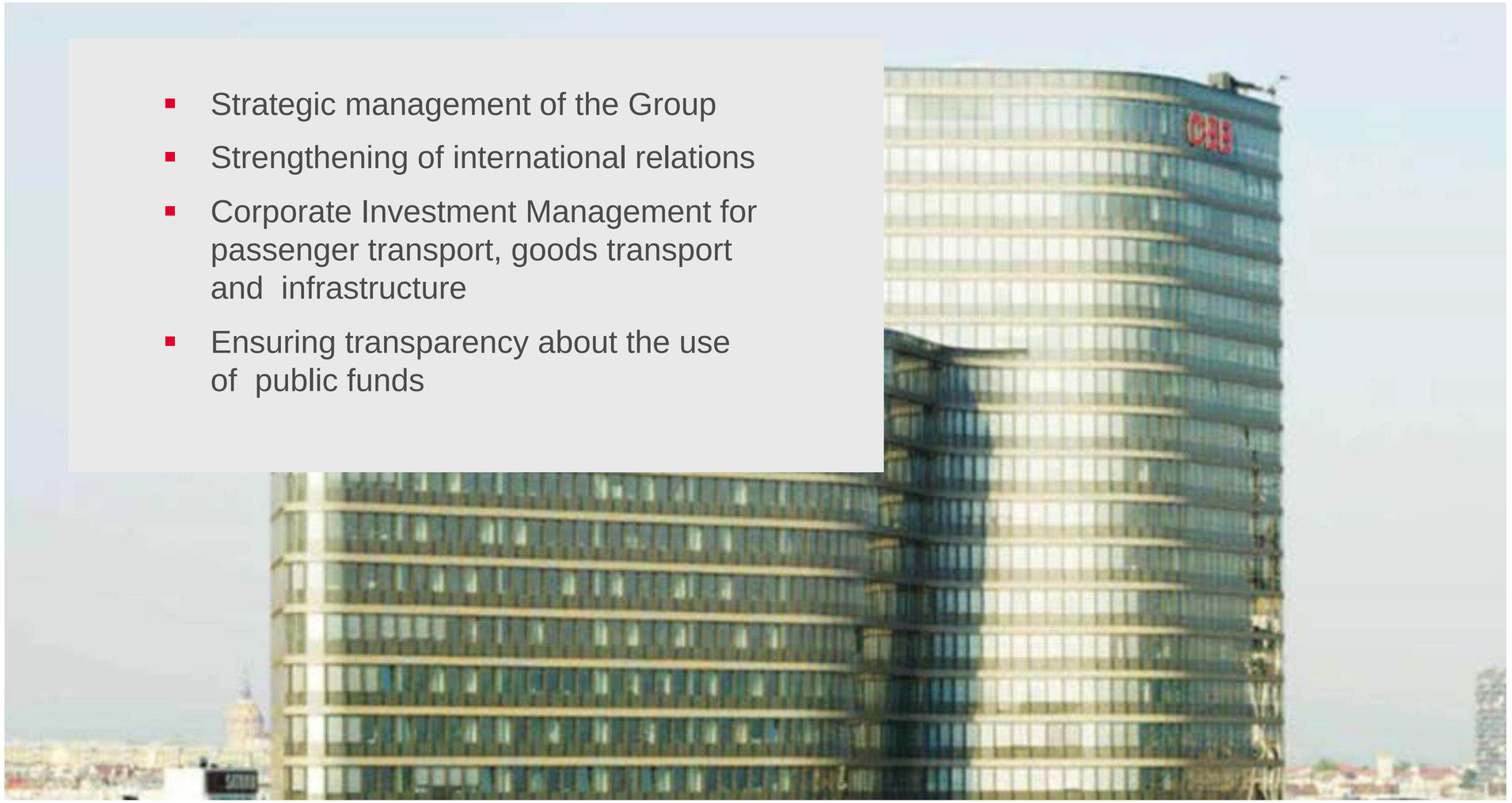
Alfred Pitnik

Public & Cargo Affairs ÖBB

UIC Webinar: **Freight Resilience, Railway Logistics & the New Challenge for its Repositioning**

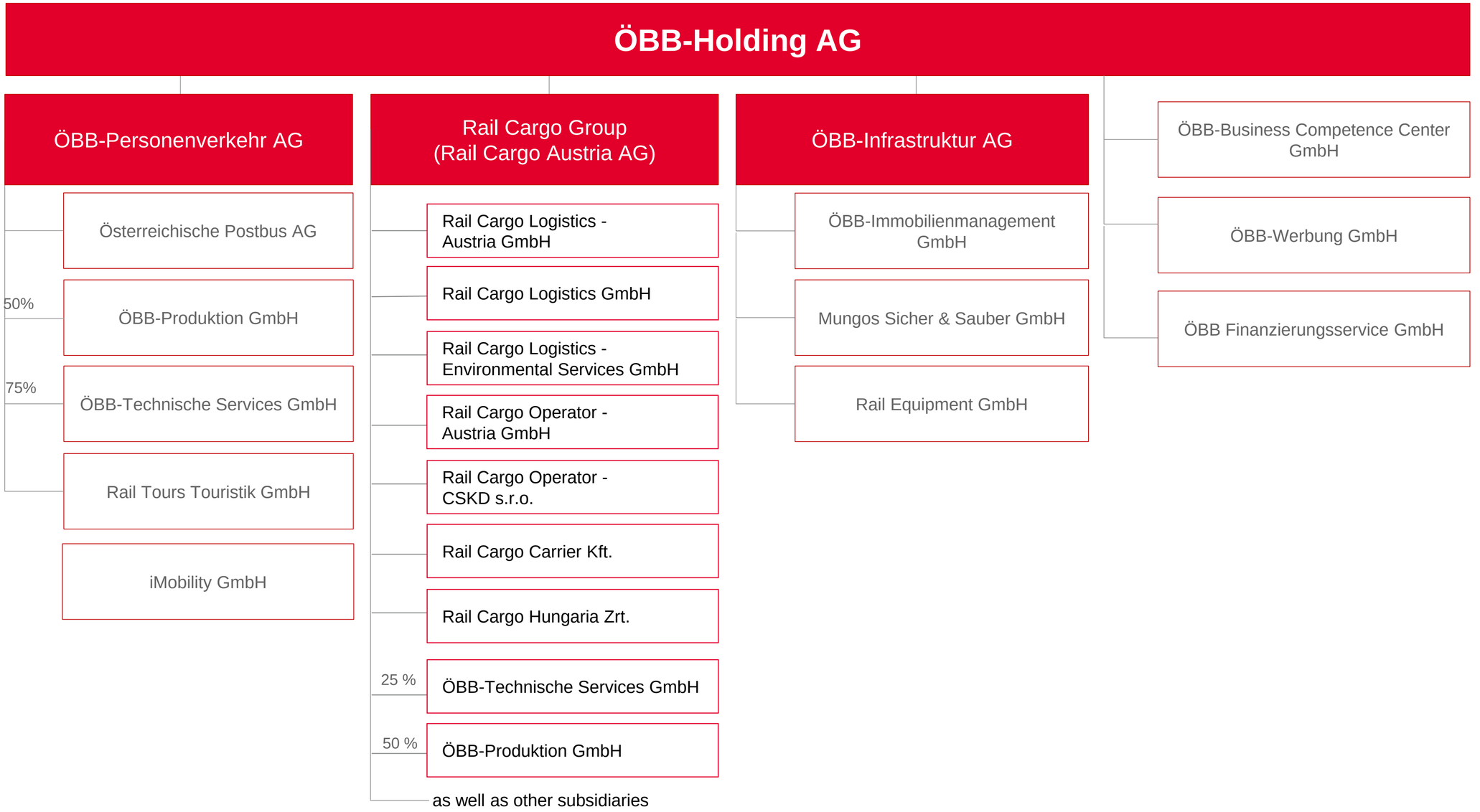
Vienna/Paris, February 24th 2022

ÖBB Holding – Strategic lead company



- Strategic management of the Group
- Strengthening of international relations
- Corporate Investment Management for passenger transport, goods transport and infrastructure
- Ensuring transparency about the use of public funds

Austrian Federal Railways – ÖBB: This is us



TLP gelb (Adressatenkreis)

Bundesministerium
Klimaschutz, Umwelt,
Energie, Mobilität,
Innovation und Technologie

ÖBB HOLDING

18.2 Bn. Euro for a modern rail network

We are investing 18.2 billion euros in a modern railway network over the next six years.
The 2022-2027 framework plan is a continuation of the previous 2021-2026 framework plan. The main innovation concerns the investment in the Austrian part of the Brenner North Approach.

With the framework plan 2022-2027, essential aspects of the current government programme in the railway sector are put on track. Together with the planned expansion of services and the introduction of the climate ticket, this will make an important contribution to achieving climate neutrality.

18.2 Bn.
framework plan 2022-2027

17.5 Bn.
framework plan 2021-2026

TLP gelb (Adressatenkreis)

Focal points of the new admissions in the new framework

Bundesministerium
Klimaschutz, Umwelt,
Energie, Mobilität,
Innovation und Technologie

ÖBB HOLDING

Expansion of local transport in the conurbations

Further expansion of infrastructure facilities for freight transport

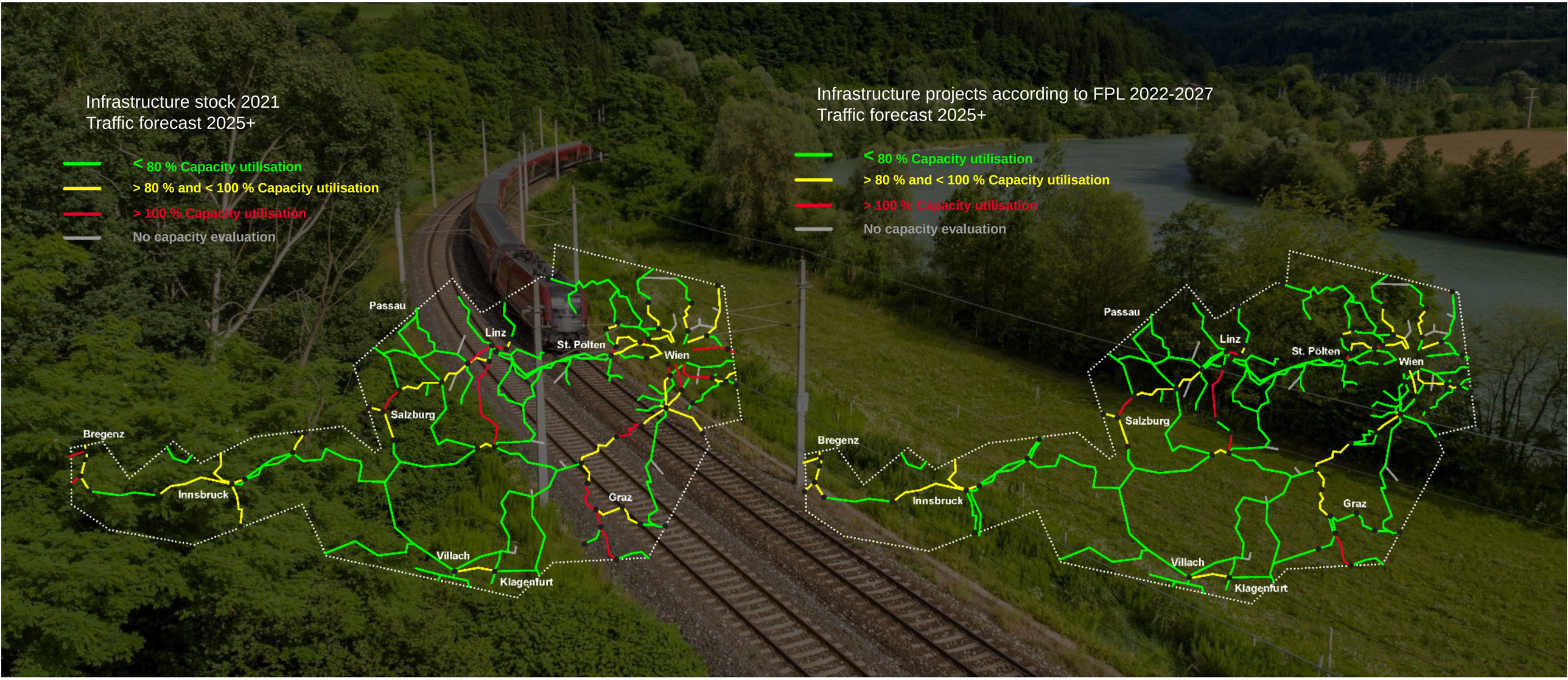
Attractiveness of regional railways and electrification programme

Digitalisation and Increasing efficiency

Increasing capacity on the rail network

Bundesministerium
Klimaschutz, Umwelt,
Energie, Mobilität,
Innovation und Technologie

ÖBB HOLDING

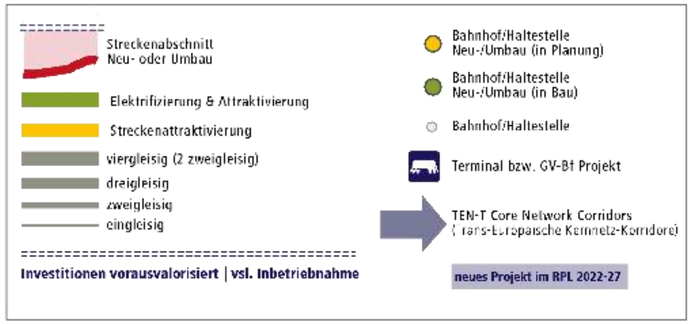


TLP gelb (Adressatenkreis)

ÖBB framework plan 18.2 bn. € 2022 - 2027

Bundesministerium
Klimaschutz, Umwelt,
Energie, Mobilität,
Innovation und Technologie

ÖBB INFRA



Melk – Loosdorf
Ersatz Bestandstunnel
43 Mio. € | 2028

Wien Hütteldorf – Wien Meidling
Verbindungsbahn Wien
317 Mio. € | 2027

Hinterstoder – Pießling-Vorderstoder
2-gleisiger Ausbau
204 Mio.€ | 2034

Direktanbindung Horn
inkl. FJB selektiv 2-gleisig
127 Mio.€ | 2027

Ausbau Nordbahn
1.007 Mio. € | 2030

S-Bahn Stammstrecke
inkl. Kontextprojekte Großraum Wien
1.088 Mio. € | 2027

Linz – Wels
4-gleisiger Ausbau
1.219 Mio. € | 2028

Linz Kleinmünchen – Linz Hbf
4-gleisiger Ausbau
382 Mio. € | 2030

Stadlau - Marchegg
2-gleisiger Ausbau & Elektrifizierung
528 Mio. € | 2025

Wien Meidling – Mödling
4-gleisiger Ausbau
1.213 Mio. € | 2034

Wien – Wr.Neustadt
Pottendorferlinie
629 Mio. € | 2023

Brenner Nordzulauf
4-gleisiger Ausbau
Schaftenau - Knoten Radfeld
2.549 Mio. € | 2032

Steindorf b.Str. – Neumarkt-K.
3-gleisiger Ausbau & Bf-Umbau
60 Mio. € | 2021

Wald a.Arlberg – Dalaas
Maßnahmen Bereich Löcherwald
46 Mio. € | 2027

Golling-Abtenau – Sulzau
Linienverbesserung
Bereich Golling
39 Mio. € | 2022

St.Margrethen – Lauterach
nahverkehrsgerechter Ausbau
189 Mio. € | 2022

Großraum Innsbruck
Errichtung & Umbau
Verkehrsstationen
45 Mio. € | 2026

Parndorf – Staatsgrenze n.Kittsee
2-gleisiger Ausbau (Phase 1 & 2)
203 Mio. € | 2023 / 2035

Flughafen Wien – Bruck a.d.Leitha
Errichtung Verbindungsstrecke
1.643 Mio. € | 2034

Ebenfurth
Errichtung Schleife
225 Mio. € | 2029

Semmering-Basistunnel
3.697 Mio. € | 2028

Bruck a.d.Mur – Graz
Bahnhofsumbauten
220 Mio. € | 2027

Graz – Weitendorf
Einbindung Koralmbahn
488 Mio.€ | 2025

Koralmbahn Graz – Klagenfurt
5.446 Mio. € | 2025

Brenner Basistunnel
4.783 Mio. € | 2032

Feldkirch – Buchs
Modernisierung
100 Mio. € | 2027

Bludenz | Richtung Arlberg
Adaptierung Ausfahrt
38 Mio. € | 2026

Wels Vbf
Terminal
39 Mio. € | 2026

Wien Süd
Terminal Phase 2
20 Mio.€ | 2025

Wörgl
Terminal
43 Mio. € | 2025

Güterzentrum
Villach
99 Mio. € | 2028

Graz Vbf
31 Mio.€ | 2025

655 Mio. €
pro Jahr
Instandhaltung

640 Mio. €
pro Jahr
Reinvestition

25 Mio. €
pro Jahr
Errichtung > 1500 P+R Stellplätze
Errichtung > 1500 Bike&Ride

570 Mio. €
RPL 2022–2027
Güterverkehr
(Terminals, Vbf & 740m-Gleise)

2,5 Mrd. €
RPL 2022–2027
Elektrifizierung & Streckenattraktivierung

2,0 Mrd. €
RPL 2022–2027
Erhöhung Sicherheit & Digitalisierung

Planungsprojekte: Neumarkt-Köstendorf - Salzburg, Staatsgrenze n. Kufstein - Schaftenau, Pass Lueg, Arlbergtunnel, Tiroler Oberland, S-Bahn Wien Nordäste, Nettingsdorf - Rohr-Bad Hall, Kirchdorf - Micheldorf, Bosrucktunnel, Werndorf - Spielfeld-Straß, Tulln - Tullnerfeld, Herzogenburg - St. Pölten, innere Aspangbahn, Ossiacherseebahn

TLP gelb (Adressatenkreis)

Systems of incentives in Austria: Funding Freight

The funding is intended to support rail freight transport services in the form of

- **Single Wagon Load (SWL)**
- **Unaccompanied Combined Transport (UCT)**
- **Rollende Landstraße (RoLa – Rolling Road)**

in the form of a non-repayable grant.

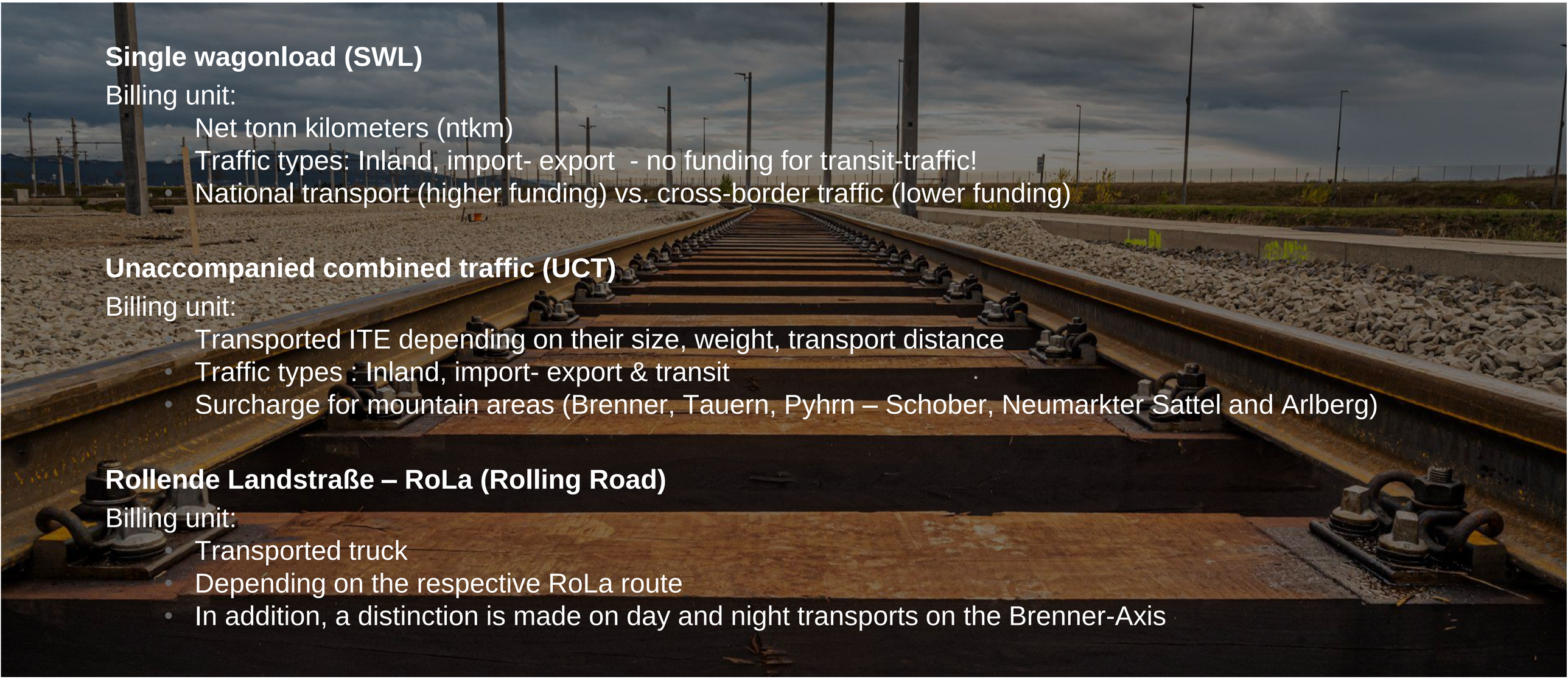
An Agency of the Ministry of Transport (BMK) – the so called “Schieneninfrastruktur Dienstleistungs-Gesellschaft mbH (SCHIG)” – has been commissioned to handle the funding program for the provision of state aid for rail freight services in certain production-forms in Austria.

Annual Calls for funding are forseen in the program and published on the websites of the Ministry of Transport (BMK) and SCHIG.

Contracts of all beneficiaries are published on the website of the ministry BMK.

Notified budget: 120 Mio EUR p.a. for all tree types of products.

Systems of incentives in Austria: Funding objects



Single wagonload (SWL)

Billing unit:

- Net tonn kilometers (ntkm)
- Traffic types: Inland, import- export - no funding for transit-traffic!
- National transport (higher funding) vs. cross-border traffic (lower funding)

Unaccompanied combined traffic (UCT)

Billing unit:

- Transported ITE depending on their size, weight, transport distance
- Traffic types : Inland, import- export & transit
- Surcharge for mountain areas (Brenner, Tauern, Pyhrn – Schober, Neumarkter Sattel and Arlberg)

Rollende Landstraße – RoLa (Rolling Road)

Billing unit:

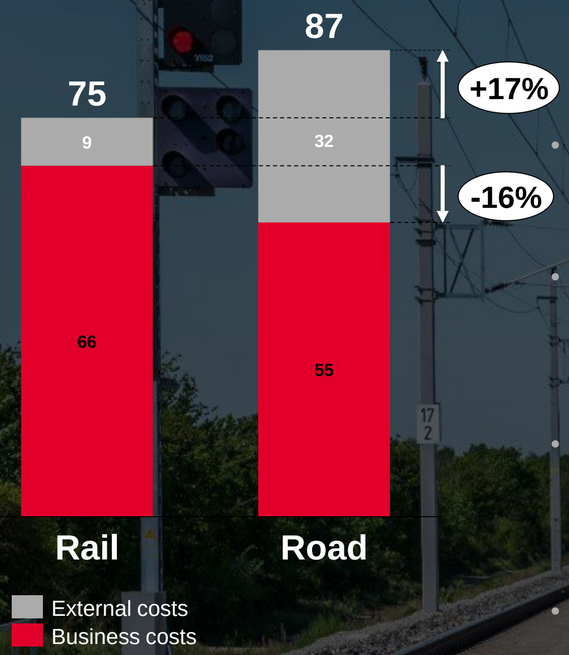
- Transported truck
- Depending on the respective RoLa route
- In addition, a distinction is made on day and night transports on the Brenner-Axis

Level Playing Field: An overall economic analysis shows a clear cost advantage of rail freight transport

Bundesministerium Klimaschutz, Umwelt, Energie, Mobilität, Innovation und Technologie

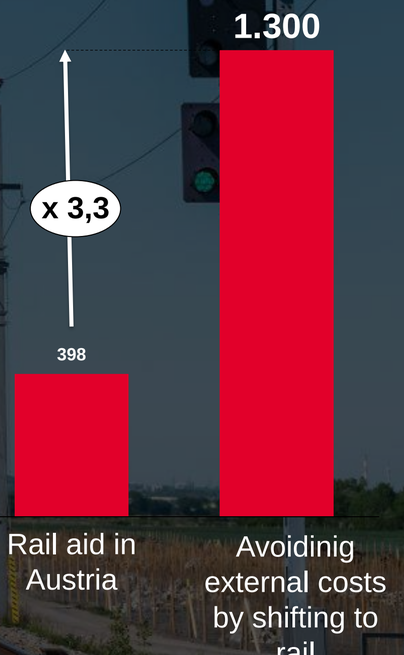
ÖBB HOLDING

Modeling total economic costs of rail and road
In EUR je 1.000 ToKM,
Example SWL Import and Export [1]



- Approx. 16% cost advantage on the road from a business perspective
- External costs, especially climate, air, accidents
- as well as soil- and water pollution are at rail significantly lower (9 vs. 32 EUR))
- Thereby approx. 17% economic cost advantage of the rail freight transport
- External costs are an integral part of the aid calculation

Efficiency of the aid system in Austria
2013-2016 cumulated [2]



SWL Single wagonload
[1] Source: Herry (2016): Final report- Calculation of eligible costs for rail freight transport, Austrian ministry of transport
[2] Source: Austrian filing documents for re-notification of the rail freight aid, Austrian ministry of transport

Contact information

Alfred Pitnik
Corporate Affairs
Head of Public & Cargo Affairs

ÖBB-Holding AG
A-1100 Wien, Am Hauptbahnhof 2
mobile +43 (0)664 6170041
alfred.pitnik@oebb.at
www.oebb.at

Connecting to the hinterland as part of the rail freight policy of the port of Zeebruges

Johan Abel Chief Officer Sales & Logistics

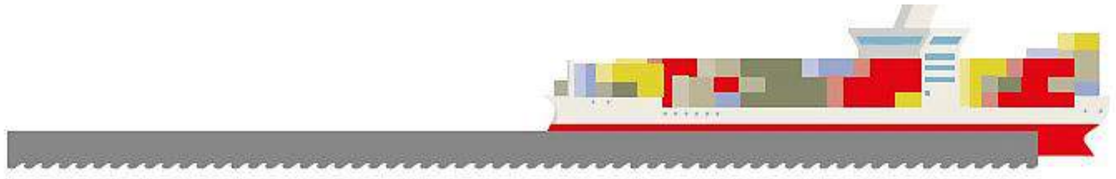
24 February 2022

Global evolution of traffic

49,2 MILLIONS DE TONNES/2021

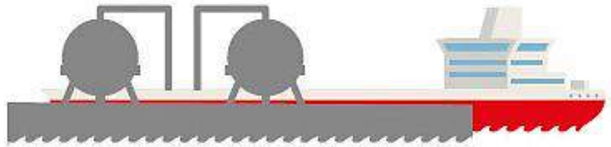
Goods’ flow

49,2 MILLIONS DE TONNES/2021

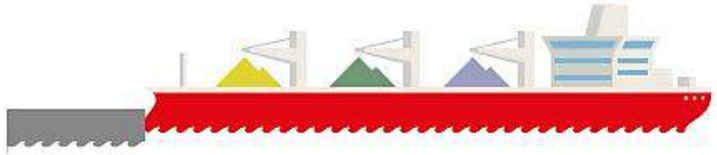


42% CONTAINERS

30% RORO



23% LIQUID BULK



3% DRY BULK

1% BREAK BULK

Containers +15,1%

20,6 MIL. TON | 2,2 MIL. TEU

RORO +5,1%

14,9 MIL. TON

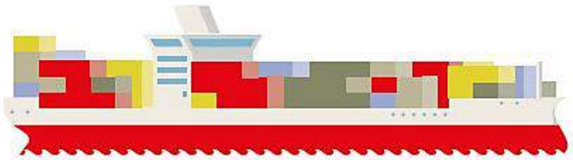
2,2 MIL. NEW CARS

MODAL SPLIT

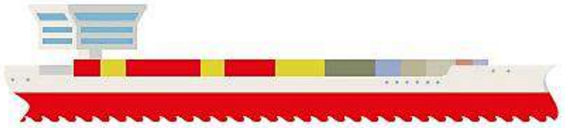
38 % ROAD

12,7 % RAIL

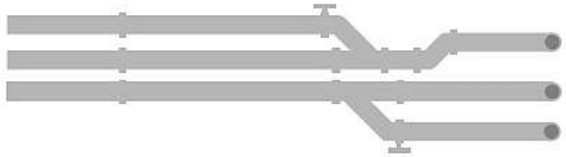
36,9 % SHORT SEA TRAN SHIPMENT



5,2 % INLAND WATERWAYSWAYS



7,1 % PIPELINE



Total figure road is everything that is not covered by rail, transhipment, inland shipping, estuary shipping and pipeline.

LAND CONNECTIVITY : Rail

Railway access to all terminals

Railway intermodal conenctions

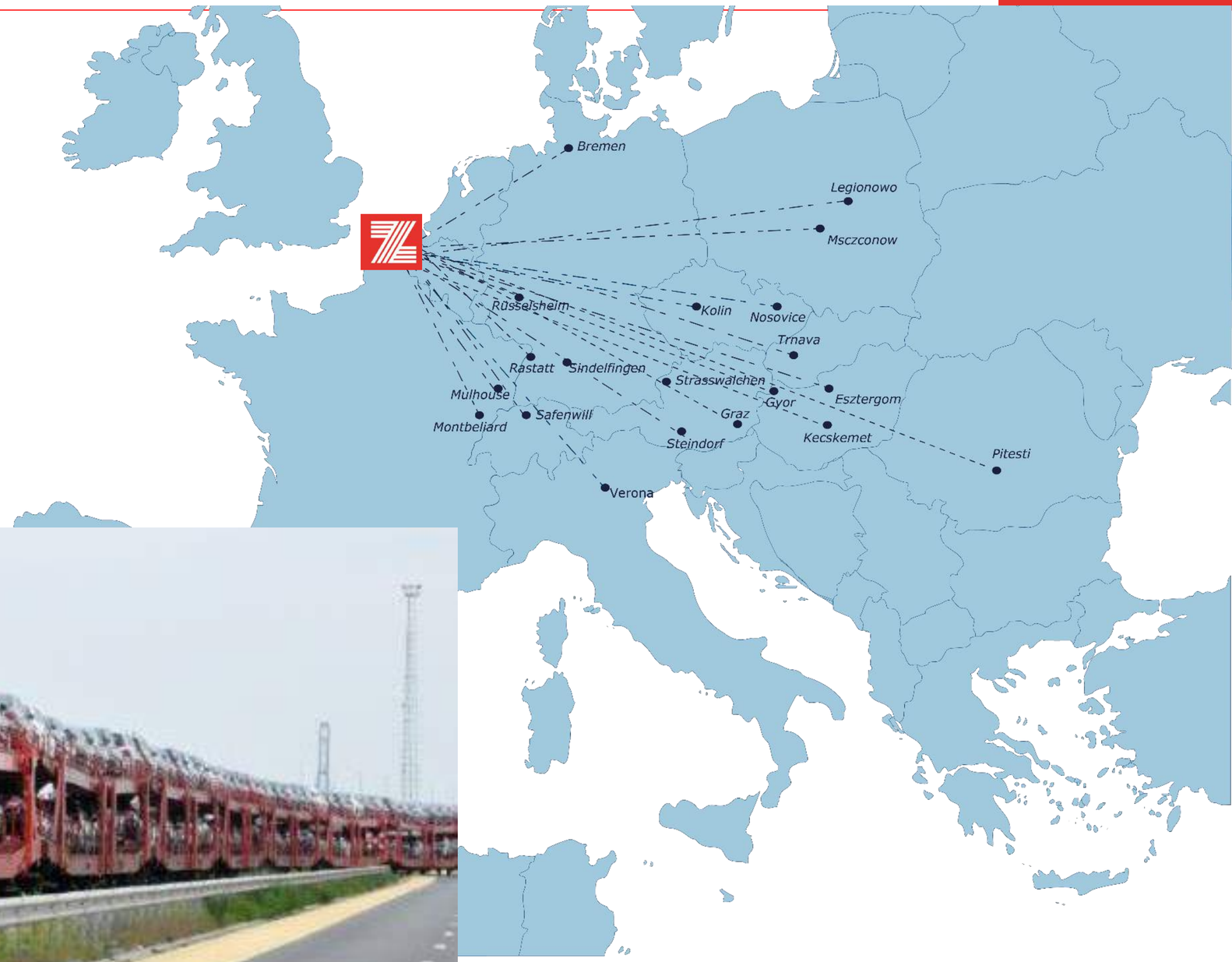
CSP Zeebrugge Terminal

P&O Ferries

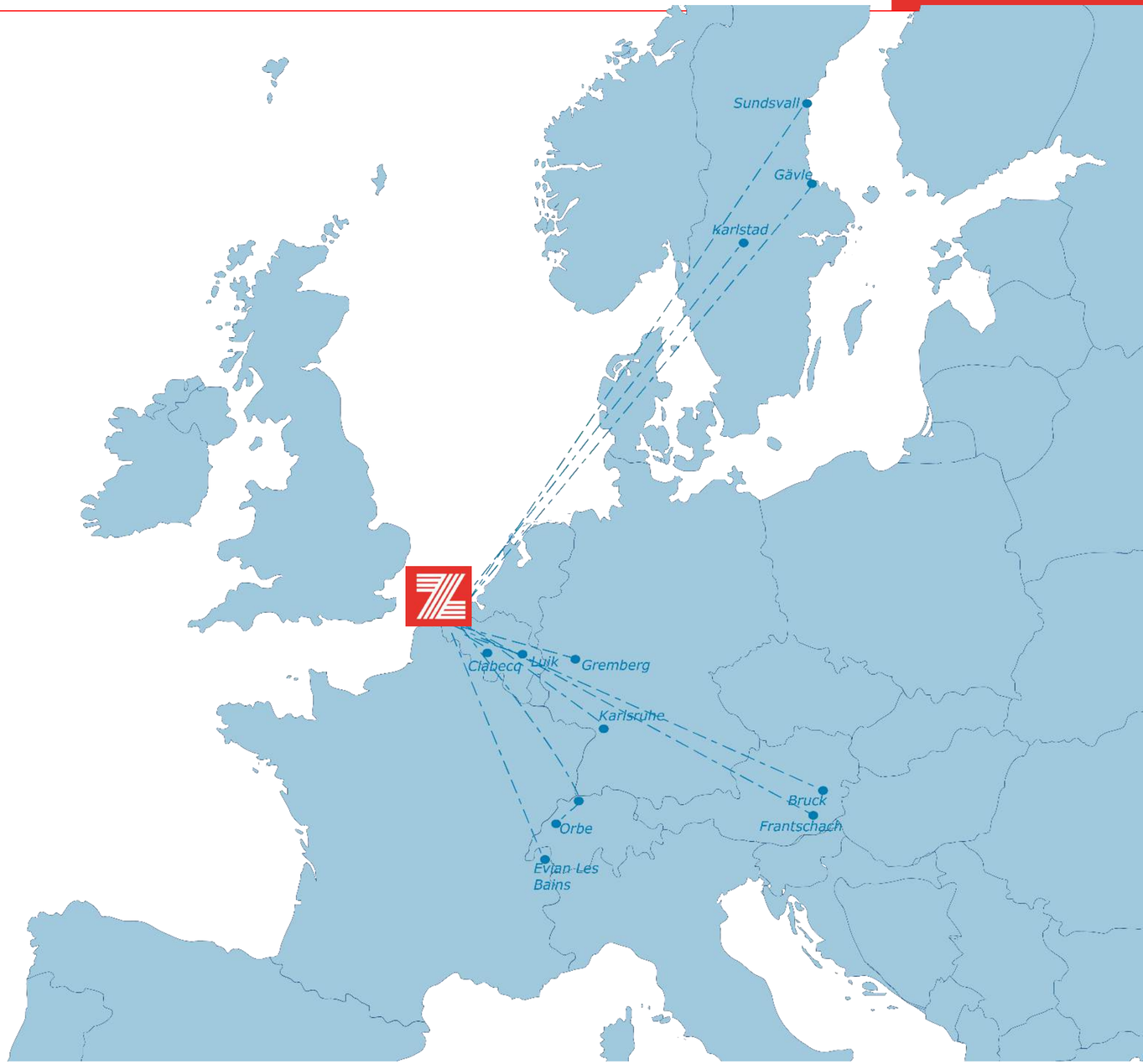
C.RO Terminal

Rail Connections to several terminals

Railway connections for new cars



Connexions ferroviaires conventionnelles

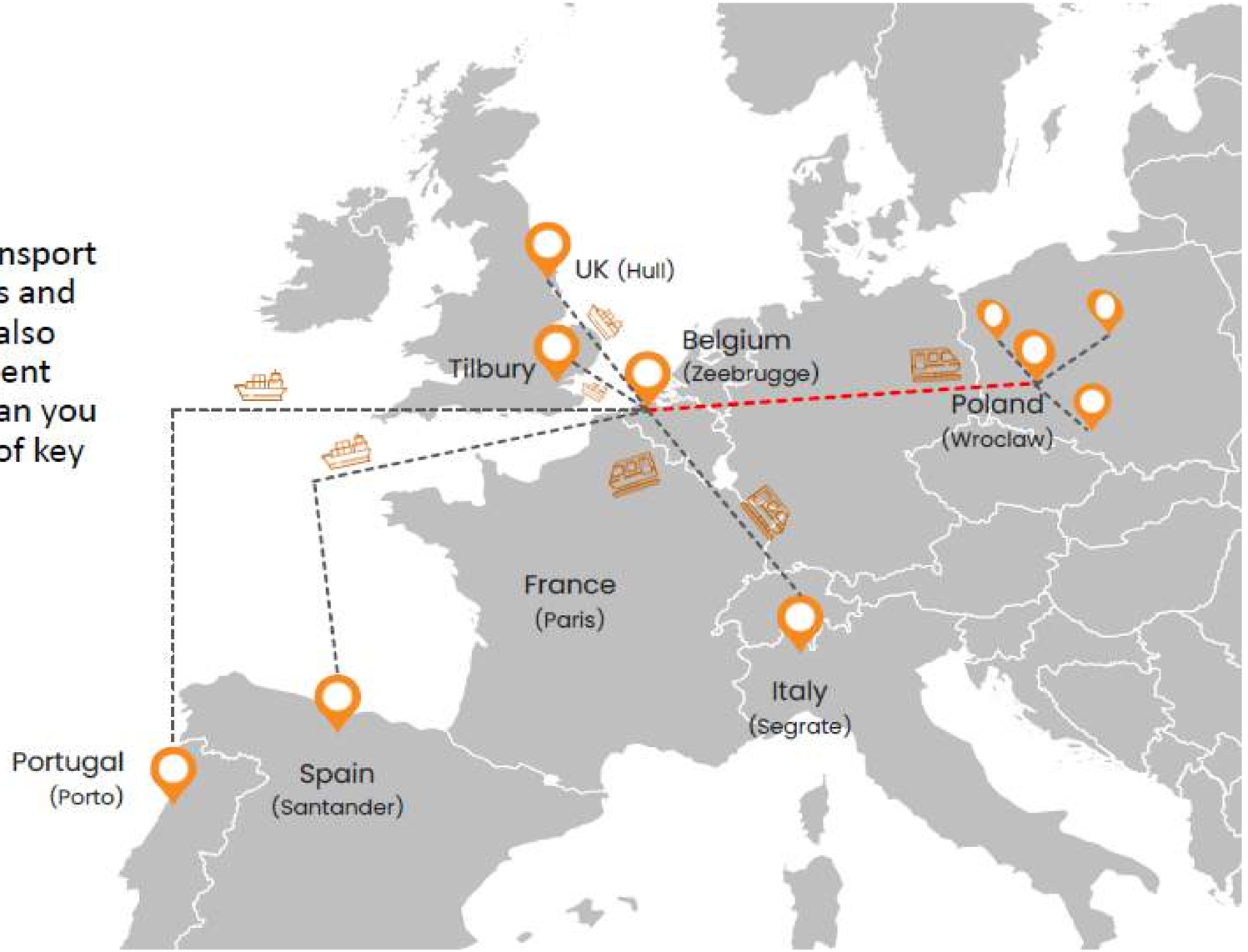


Infrastructural investments

Facilitate and support new railway initiatives

INTERMODAL MAP

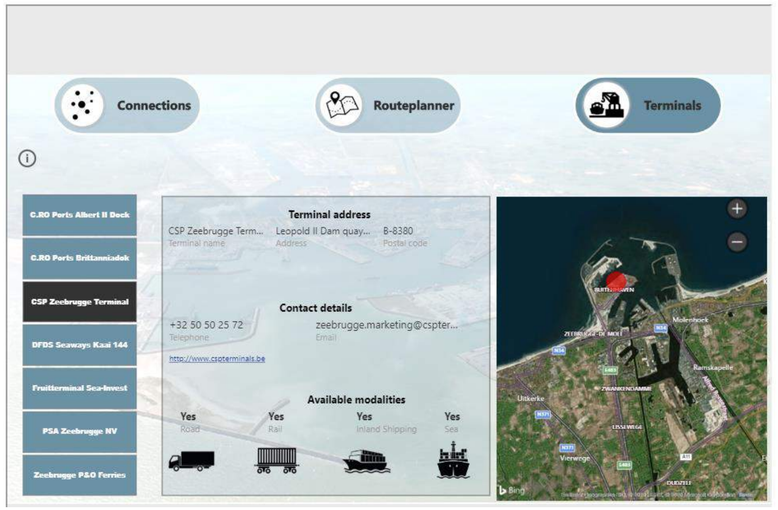
Whether it's road, sea or air, our multimodal transport solutions work to minimise emissions, cut costs and improve efficiency for your supply chain. We also minimise dependence on third parties. Frequent departures from our company-owned trains mean you don't need to worry about space on a number of key routes.

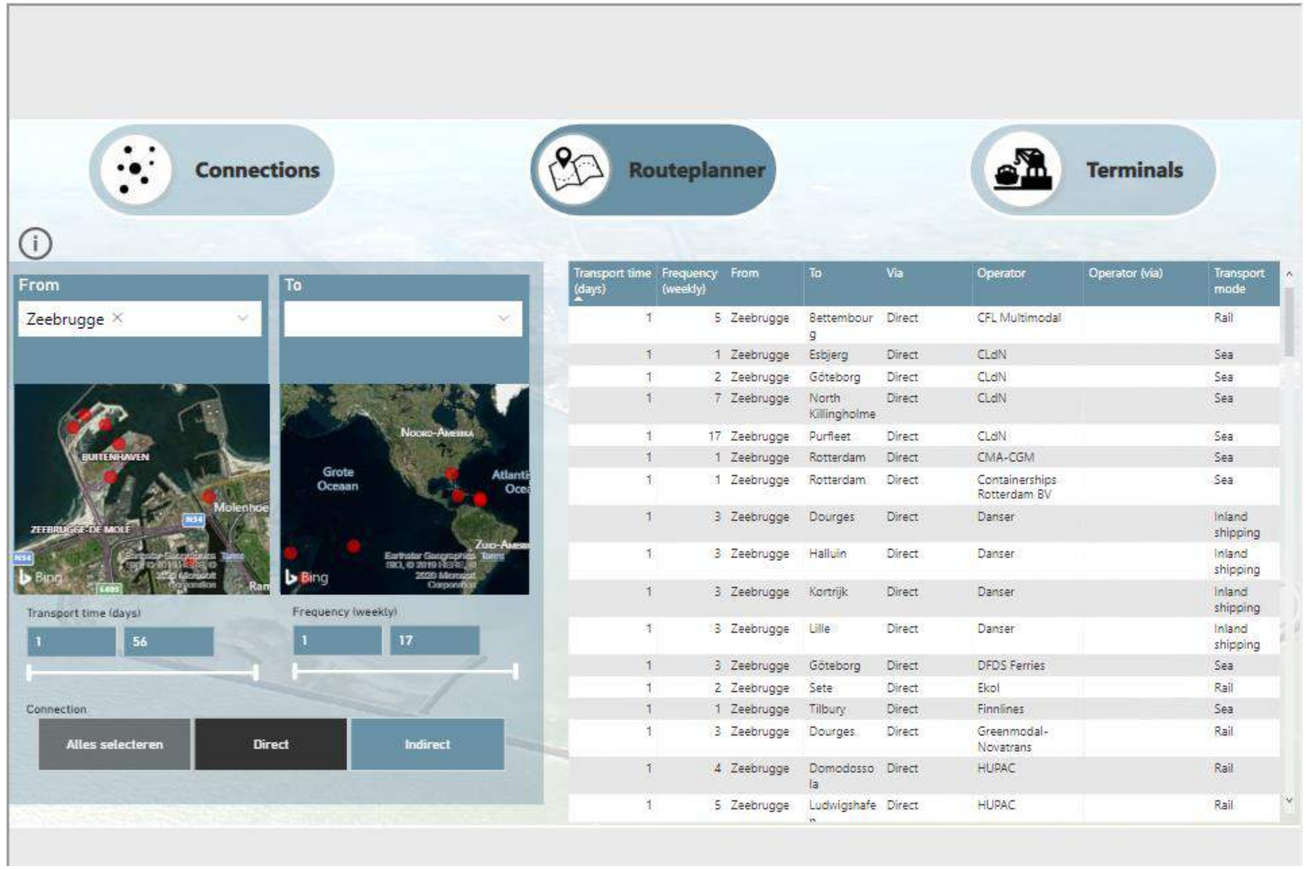


Innovation and follow up of market evolutions

Innovation and follow up of market evolutions

Planning of intermodal chains – online tool





Transport time (days)	Frequency (weekly)	From	To	Via	Operator	Operator (via)	Transport mode
1	5	Zeebrugge	Bettembourg	Direct	CFL Multimodal		Rail
1	1	Zeebrugge	Esbjerg	Direct	CLdN		Sea
1	2	Zeebrugge	Göteborg	Direct	CLdN		Sea
1	7	Zeebrugge	North Killingholme	Direct	CLdN		Sea
1	17	Zeebrugge	Purfleet	Direct	CLdN		Sea
1	1	Zeebrugge	Rotterdam	Direct	CMA-CGM		Sea
1	1	Zeebrugge	Rotterdam	Direct	Containerships Rotterdam BV		Sea
1	3	Zeebrugge	Dourges	Direct	Danser		Inland shipping
1	3	Zeebrugge	Halluin	Direct	Danser		Inland shipping
1	3	Zeebrugge	Kortrijk	Direct	Danser		Inland shipping
1	3	Zeebrugge	Lille	Direct	Danser		Inland shipping
1	3	Zeebrugge	Göteborg	Direct	DFDS Ferries		Sea
1	2	Zeebrugge	Sete	Direct	Ekol		Rail
1	1	Zeebrugge	Tilbury	Direct	Finnlines		Sea
1	3	Zeebrugge	Dourges	Direct	Greenmodal-Novatrans		Rail
1	4	Zeebrugge	Domodossola	Direct	HUPAC		Rail
1	5	Zeebrugge	Ludwigshafen	Direct	HUPAC		Rail

Co-financed by the European Union
Connecting Europe Facility

World port reconciling people, climate and economy

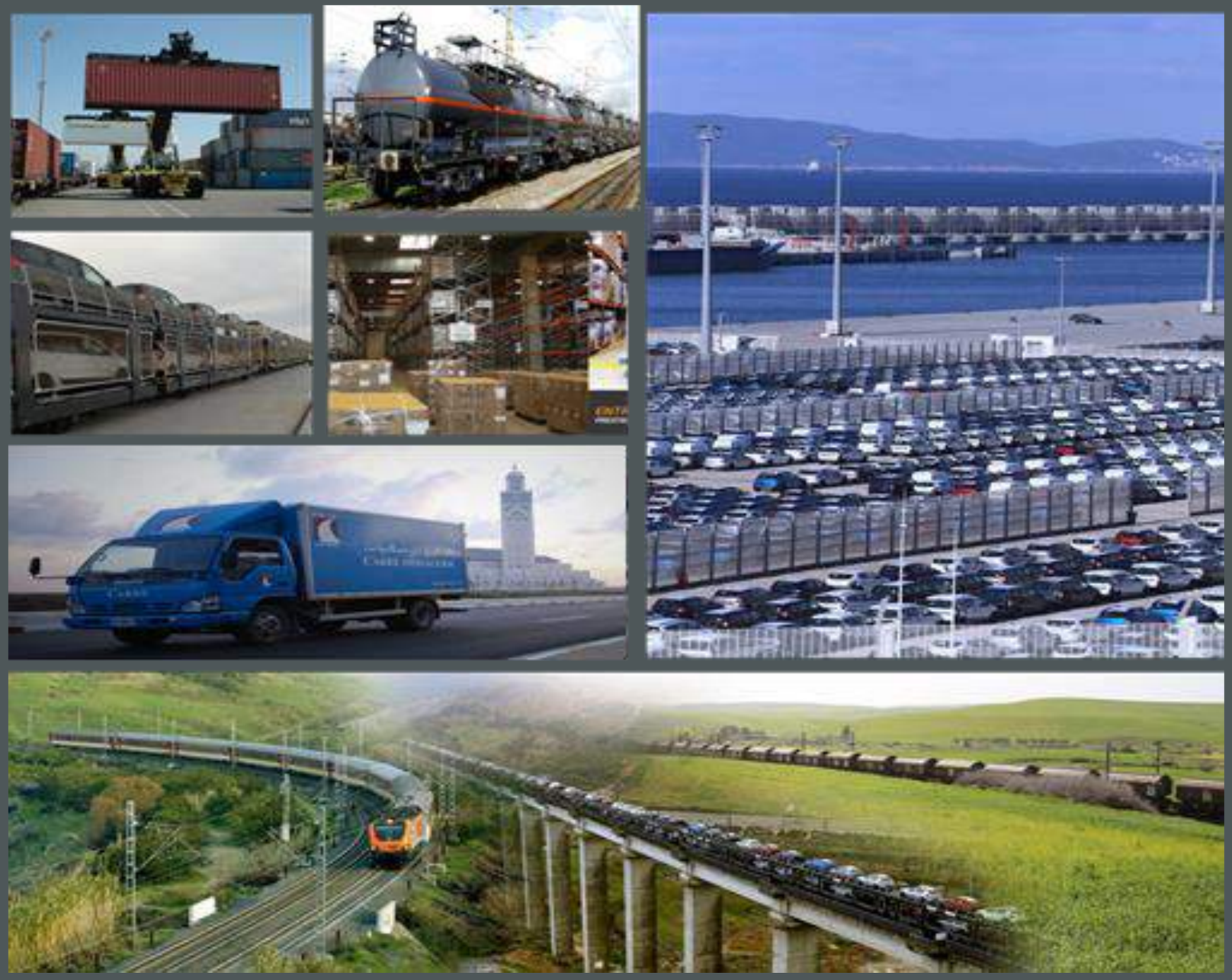
One port

Two sites

Stronger position global supply chain
Sustainable growth & interconnectivity
Pioneering in energy transition

portofzeebrugge.be

Merci pour votre attention



100 YEARS ANNIVERSARY

INTERNATIONAL UNION OF RAILWAYS

Fret et logistique ONCF , une résilience et une stratégie de repositionnement prometteuse

Mohammed OUBRAHIM
Directeur Commercial Marchandises

SOMMAIRE

1. Marché et positionnement,

2. Panorama des activités Fret et Logistique

3. Stratégie de développement du FRET-ONCF

1. Projections à l’horizon 2025 et 2030,

2. Synthèse

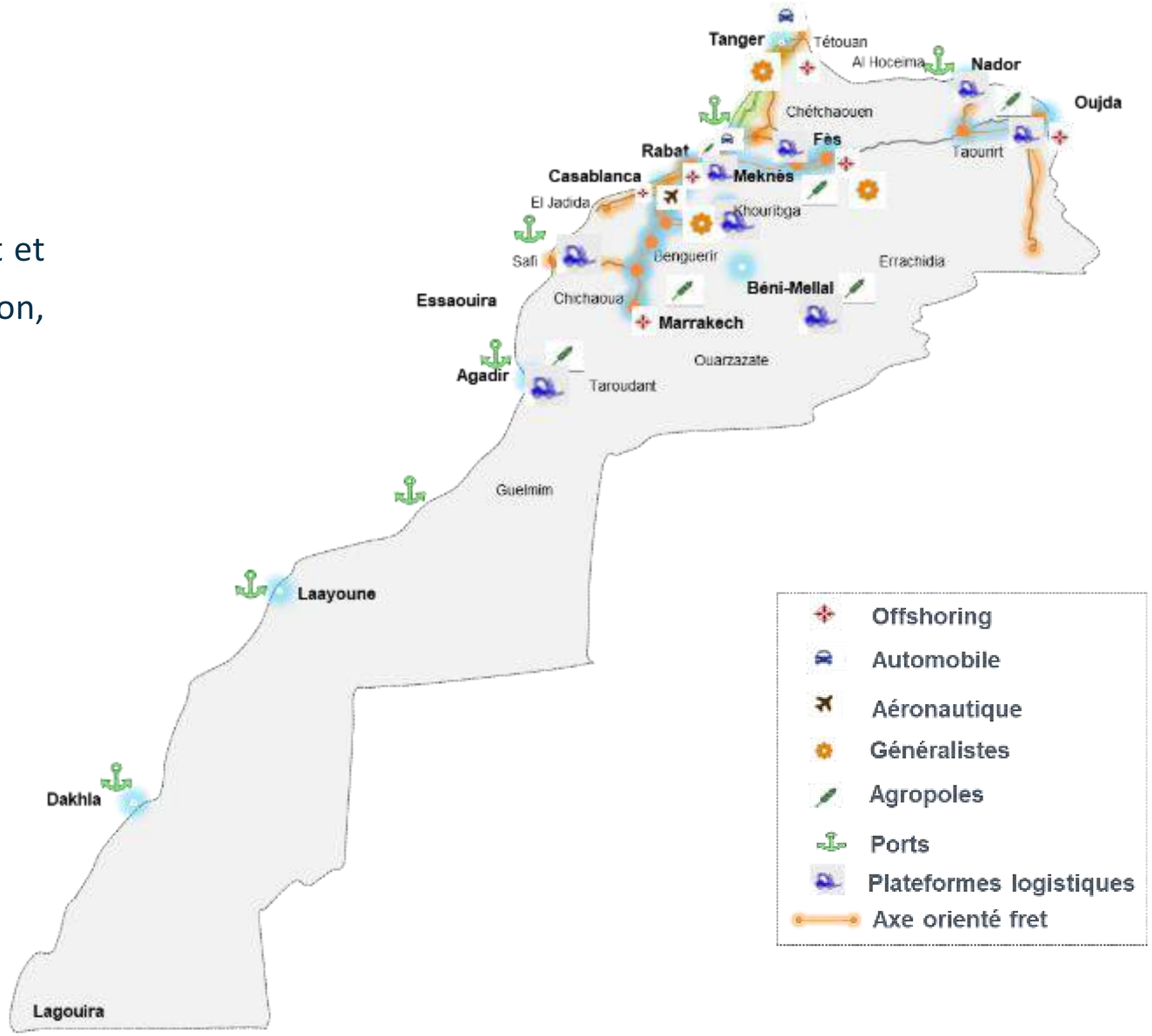
SOMMAIRE

1 Marché et positionnement

1.1 Besoins et services Fret et Logistique

- Un besoin important pour le transport fret et logistique au niveau des sites de production, de stockage et de distribution

- Une nécessité d'accompagnement fiable du déploiement des stratégies sectorielles : pôles portuaires, plateformes logistiques, sites industriels et miniers…



1 Marché et positionnement

1.2 Environnement

RÉGLEMENTATION

Ferroviaire réglementé avec contrôle rigoureux

DEMANDE

Transport globalement en croissance et besoin en solutions logistiques intégrées

OFFRE DE TRANSPORT

Mode routier en croissance suite développement infrastructure : routes (+3%/an) et camions (+5%/an)

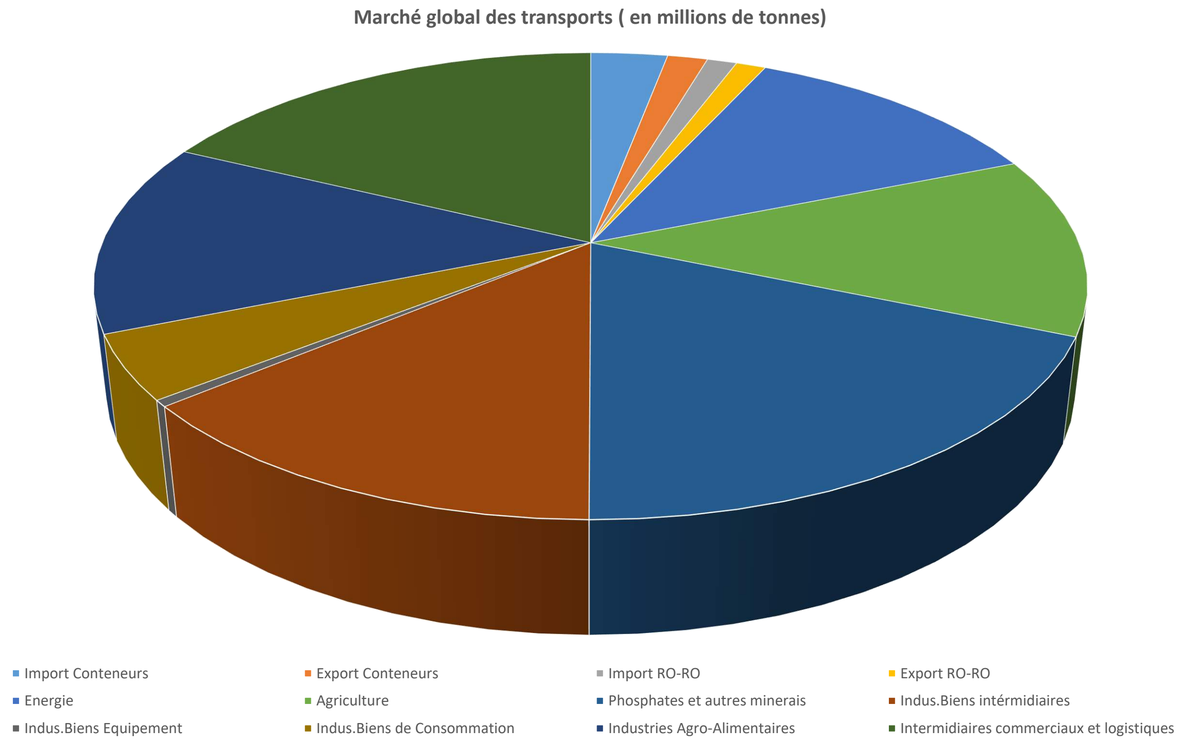
CHANGEMENTS STRUCTURELS

Délocalisations des industries, nouveaux modes (pipe, feeder) et substitutions brutales

1 Marché et positionnement

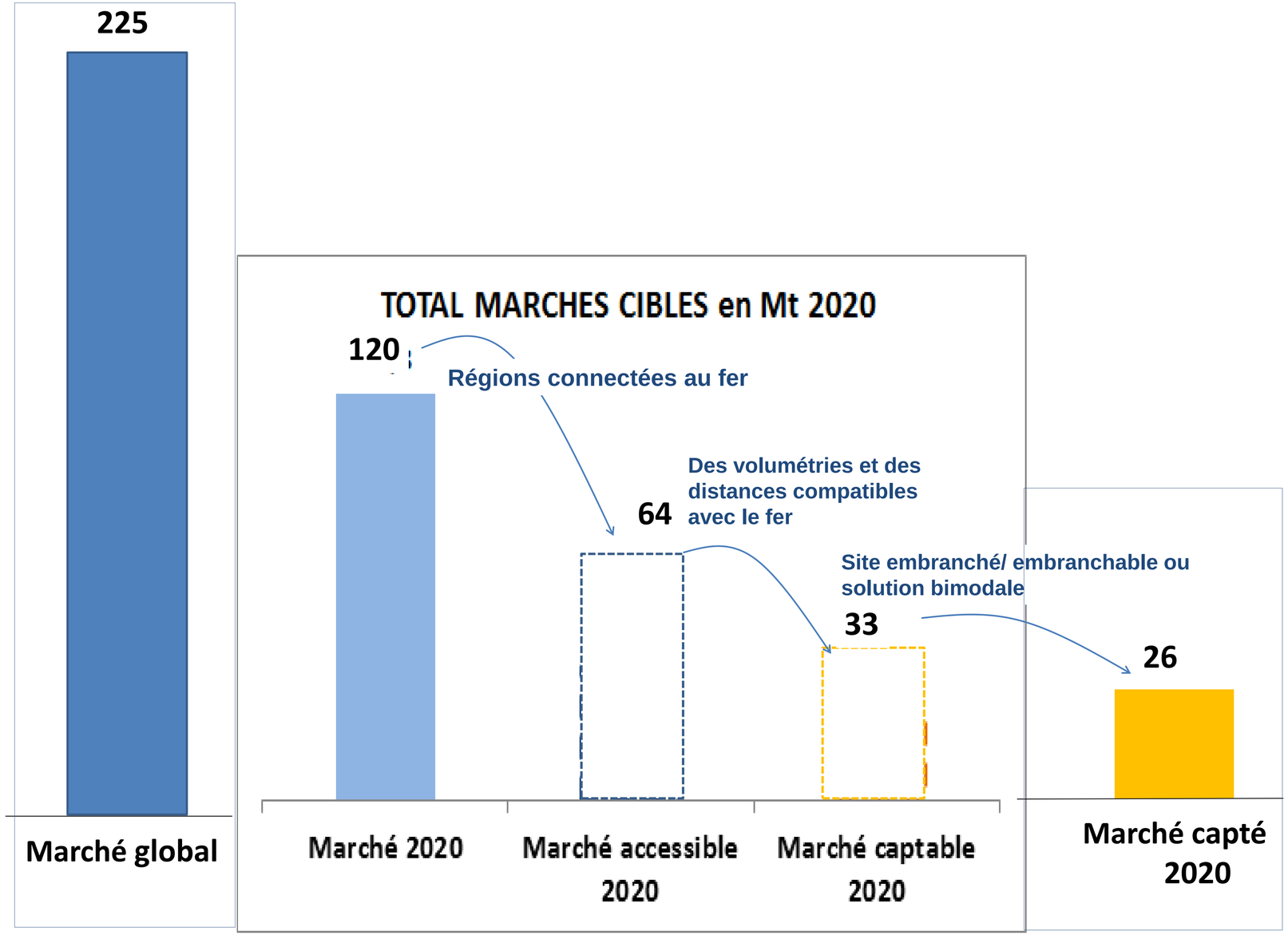
1.3 Consistance du marché de transport de marchandises au Maroc(Mt)

Import Conteneurs	6,7
Export Conteneurs	3,5
Import RO-RO	2,6
Export RO-RO	2,6
Energie	27
Agriculture	28
Phosphates et autres minerais	42
Indus.Biens intérmidiaires	31,2
Indus.Biens Equipement	1
Indus.Biens de Consommation	10
Industries Agro-Alimentaires	30
Intermidiaires commerciaux et logistiques	40
Total	**224,6**



1 Marché et positionnement

1.3 Consistance du marché de transport de marchandises au Maroc(Mt)



Par rapport au marché global

12 %

Par rapport au marché accessible

40 %

79 % du captable a été capté en 2020

Marché (MT)	2020	2025
Marché Captable	33	41
Marché à capter	26	37
Part (%)	79%	90%

Objectif étant de gagner 10 points sur 5 ans

SOMMAIRE

2 Panorama des activités Fret et Logistique

2.1 Indicateurs transport

26

Tonnage annuel (10^6)

Tonnage journalier

80000

70

Nbre Train par jour

Part de marché

12%

86%

Trafic en conventionnement

Indicateurs logistiques

20
Grands comptes

80 000
Conteneurs traités par an

100%
Occupation des cellules des entrepôts

200 000 m^3
de marchandises traitées par an en entrepôts

3 millions
Colis traités par an dans le hub messagerie

2 Panorama des activités Fret et Logistique

2.2 Couverture de la Supply Chain

DOMAINES D'ACTIVITÉ

01 > TRANSPORT FERROVIAIRE


02 > EXPLOITATION PORTS SECS


03 > GESTION D'ENTREPÔTS


04 > DISTRIBUTION (LAST MILE)

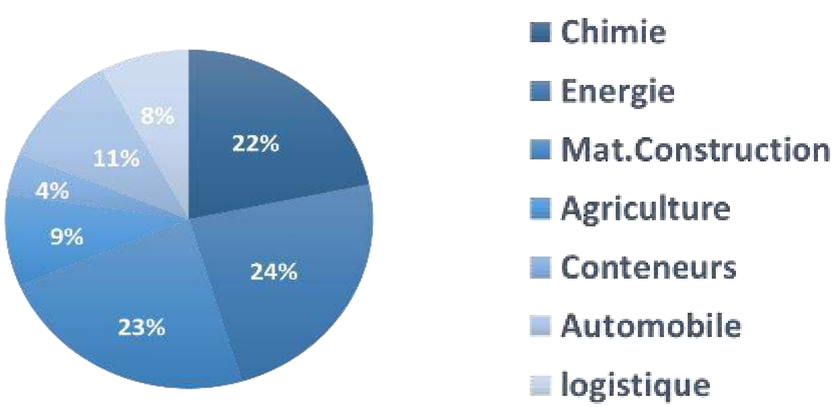

2 Panorama des activités Fret et Logistique

2.3 Deux principales activités

Phosphates

OCP (8 sites CLIENTS)
Train de 4000T/750m

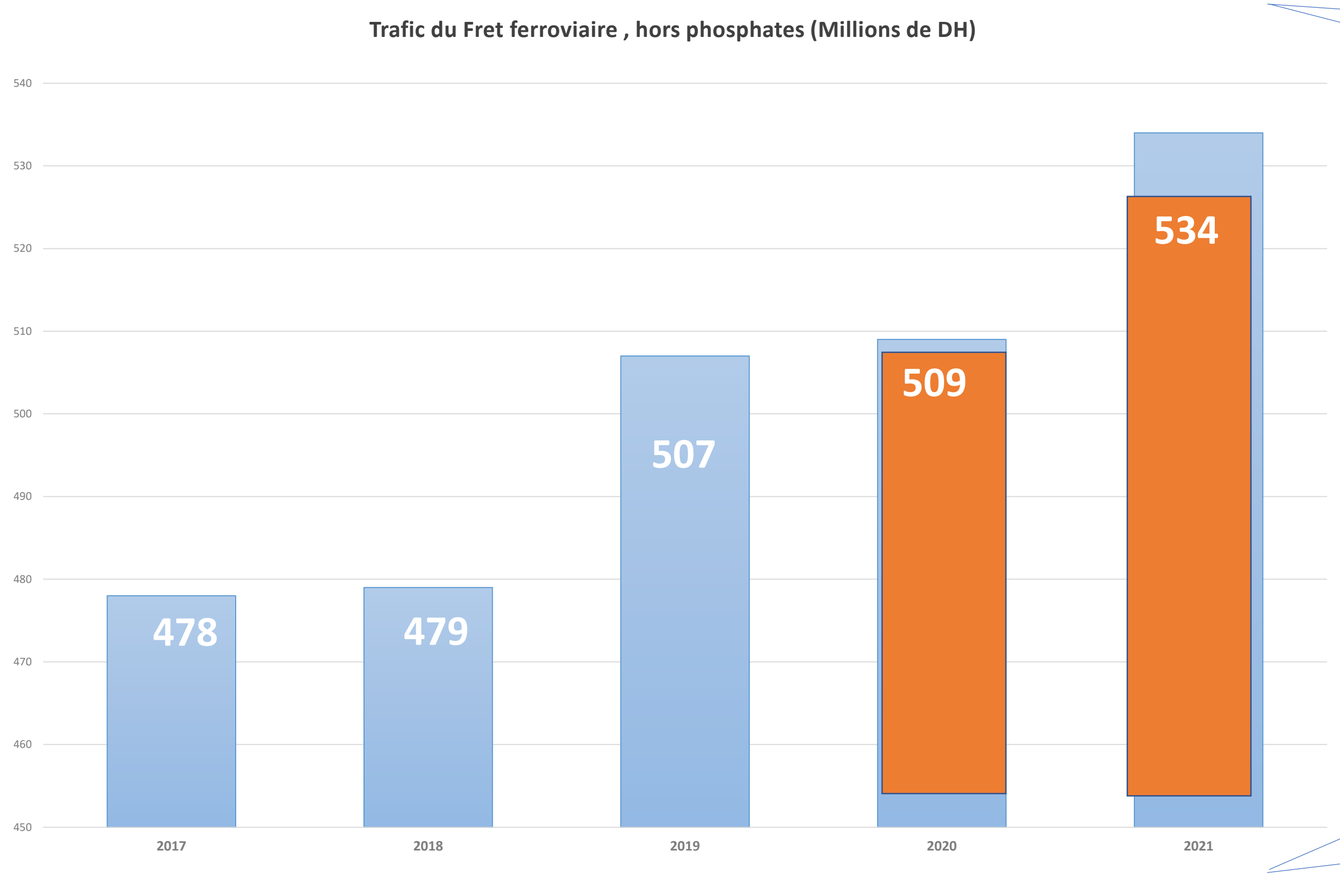
Fret (hors phosphates)



115 Clients/Opérateurs

2 Panorama des activités Fret et Logistique

2.4 Trafic Fret et logistique (hors phosphate) : Forte résilience , évolution positive malgré la crise



Résilience du fret ferroviaire aux impacts de la pandémie

- La logistique ferroviaire au service des chaines d'approvisionnement et de distribution des produits de première nécessité ,
- Arrêt/Ralenti de certains flux de marchandises compensés par d'autres de première nécessité (céréales , agro-alimentaire, …etc.)

SOMMAIRE

3 Stratégie de développement du FRET-ONCF

Une stratégie de développement en cours d' implémentation

Vision

Devenir un opérateur de transport et de la logistique capable d'offrir des solutions logistiques globales et intégrées (Door to Door)

4 leviers

L 1 — **Aménagement, construction et exploitation des plateformes Logistiques**

L 2 — **Développement des plans logistiques sectoriels**

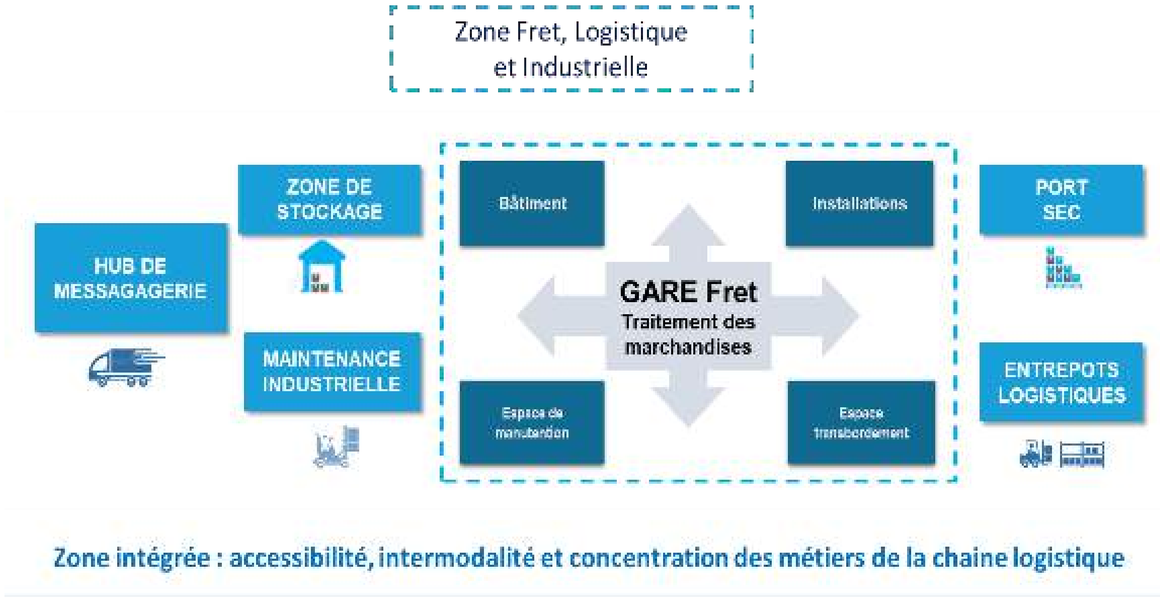
L 3 — **Massification des flux de et vers les ports**

L 4 — **Partenariats et Constitution d'Opérateur Global**

3 Stratégie de développement du FRET-ONCF

Levier 1: Stratégie de développement des plateformes logistiques

- ❑ Délocaliser les activités Fret et Logistique à l'extérieur du périmètre urbain et à proximité des zones industrielles
- ❑ Mettre à niveau ces activités et leur structuration
- ❑ Se doter d'un potentiel de développement des activités du transport et de la logistique



3 Stratégie de développement du FRET-ONCF

Levier 1: un réseau de plateformes logistiques

Casa - Zeanata

- Superficie : 120 ha
- Ports secs : 30 ha
- ZAL : 50 ha

Tanger - Dalia

- Superficie : 50 ha
- Port sec : 7 ha
- ZAL : 43 ha

Fès - Ras El-Ma

- Superficie : 102 ha

Nador - Selouane

- Superficie : 50 ha

Casa - Mita

- Superficie : 42 ha
- Port sec : 8 ha
- ZAL : 34 ha

Fès - Bensouda

- Superficie : 56 ha
- Port sec : 7 ha
- ZAL : 49 ha

Oujda - Benioukil

- Superficie : 350 ha

Marrakech- S. Bouathmane

- Superficie : 79 ha

Marrakech – S. Ghanem

- Superficie : 20 ha
- Port sec : 7 ha

9

SITES

450

HECTARES

En exploitation

En projet

3 Stratégie de développement du FRET-ONCF

Levier 1: un réseau de plateformes logistiques /Quelques réalisations

Casa MITA

Marrakech

Fès

Port Sec

Entrepôts logistiques

Hubs de messagerie

Centre d'affaires

Faisceau voies à Zenâta

3 Stratégie de développement du FRET-ONCF

Levier 2: Développement des plans logistiques sectoriels

Plans logistiques sectoriels développés

Soutenir les stratégies sectoriels et développer une offre adaptée à l'évolution des besoins des opérateurs :

Plans logistiques


Céréaliers


Hydrocarbures


Conteneurs


Automobiles

3 Stratégie de développement du FRET-ONCF

Levier 2: Développement des plans logistiques sectoriels/Réalisations

➢ Plans Logistiques Céréaliers et Hydrocarbures

Construction des silos (bacs) de stockage des céréales (hydrocarbures) sur des Terrains Connectés à la voie ferrée

01 Amélioration des capacités de stockage (quantité et qualité)

02 Amélioration de la compétitivité de la chaine logistique

03 Eviter les ruptures et surestaries, massifier par trains complets (1200 T)

Plan Logistique Céréaliers

- ✓ Silos réalisés : 10
  - Capacité : 400KT
  - Lieu : Fès, Meknès, Casa, Berrechid & Marrakech ,Sidi Slimane et Taza
- ✓ Silos en projets : 4
  - Capacité : 250 KT
  - Lieu : Casa, Marrakech & Oriental
- ✓ Transport
  - Actuel : 500 000 T/an
  - A terme : 1 Million T/an

Plan Logistique hydrocarbures

- ✓ Terminaux réalisés : 4
  - Lieu : Tanger Med, Jorf Lasfer, Marrakech et Meknès
- ✓ Terminaux en projets : 2
  - Lieu : Fès et NAdor
- ✓ Transport
  - Actuel : 600 000 T/an
  - A terme : 1 million T/an

3 Stratégie de développement du FRET-ONCF

Levier 2: Développement des plans logistiques sectoriels/Réalisations

➢ Plan Logistique Conteneurs

Trois Terminaux à conteneurs construits et en exploitation :
Casablanca (MITA) : 8 ha
Fès : 4ha
Marrakech : 4ha

Transport et traitement des conteneurs sous douane (port sec): stockage, manutention, pesage, dédouanement, contrôle, visite…

Cadence : 2 train/j et par sens (5 à terme)

Capacité : 66 à 70 EVP par train

Transport : 40000 EVP par an et 150000 à terme

3 Stratégie de développement du FRET-ONCF

Levier 2: Développement des plans logistiques sectoriels/Réalisations

➢ Plan Logistique Automobiles

Le rail , maillon essentiel dans la chaine logistique de Renault (Melloussa) et PSA (Kenitra) dans le cadre de la stratégie d'accélération industrielle

PERFORMANCES

- **360 000** Voitures transportées (2019)
- **1 500** à **1800** voitures par jour
- **240** à **280** voitures par train
- **12** à **16** trains par jour
- **Potentiel :** 620 000 voitures, dont 160 000 de Kenitra et 100 000 voitures de Casa.

RETOMBÉES

- **45 000** camions évités
- **250** camions évités par jour ,
- Réduction substantielle des GES

3 Stratégie de développement du FRET-ONCF

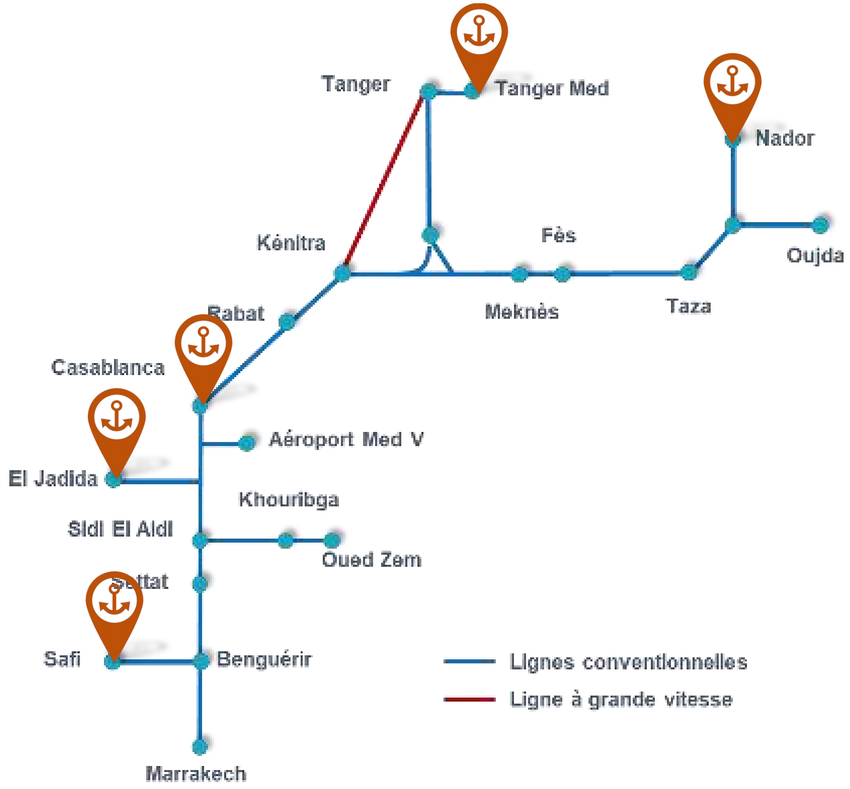
Levier 3: Massification et Optimisation des flux de et vers les ports

60 %
Du trafic Fret est réalisée avec les ports

14,6
MT de marchandises Échangées avec les ports

17%
Part du rail

30 %
Part '' Objectif'' à l'horizon 2030



- Développement installations ferroviaires aux ports
- Amélioration des interfaces avec les opérateurs
- Amélioration de la connexion de l'hinterland des ports
- Intégration du rail dans la Supply Chain des clients

Ports	Trafic portuaire, (KT)	Trafic Rail	Part actuelle du rail	Part 2030 du rail
Casablanca	30 300	8 700	28%	35 %
Nador	3 300	687	21%	30%
El Jorf Lasfer	35 600	410	1%	5%
Safi	5 900	4 210	71%	85%
Tanger Med	11 100	578	5%	25%
Total	**86 200**	**14 585**	**17 %**	**30 %**

3 Stratégie de développement du FRET-ONCF

Levier 4: Partenariats et Constitution d'Opérateur Global

- **Partenariats**

- **Opérateur Global et Intégré ,futur champion national logistique**

Le ferroviaire peut constituer l'**épine dorsale** des chaines logistiques globales et de la mobilité durable , le relais à travers des plateformes de stockage et le transport routier de la livraison terminale

L'ONCF , en mesure de mener des grands projets d'investissement et de développer des partenariats avec les opérateurs de la chaine logistique et de réaliser la croissance externe . L'objectif étant d'assurer une prestation logistique globale multimodale et intégrée avec une ambition régionale pour l'Afrique et la Méditerranée.

Concrétisation de cette ambition d'OGI repose sur les actions suivantes

- Accroissement soutenu du trafic ferroviaire par la concrétisation de projets de développement et de partenariats logistiques et industriels;
- Renforcement du rôle de la filiale SLTR CARRE , en matière de transport routier , dans les chaines logistiques de distribution et d'approvisionnement des clients.
- Promotion de la réalisation de plateformes logistiques et d'entrepôts logistiques sur des terrains ONCF destinés à cet effet.
- Acquisition d'opérateurs de transport et logistique , intervenant dans les grandes chaines logistiques nationales et internationales

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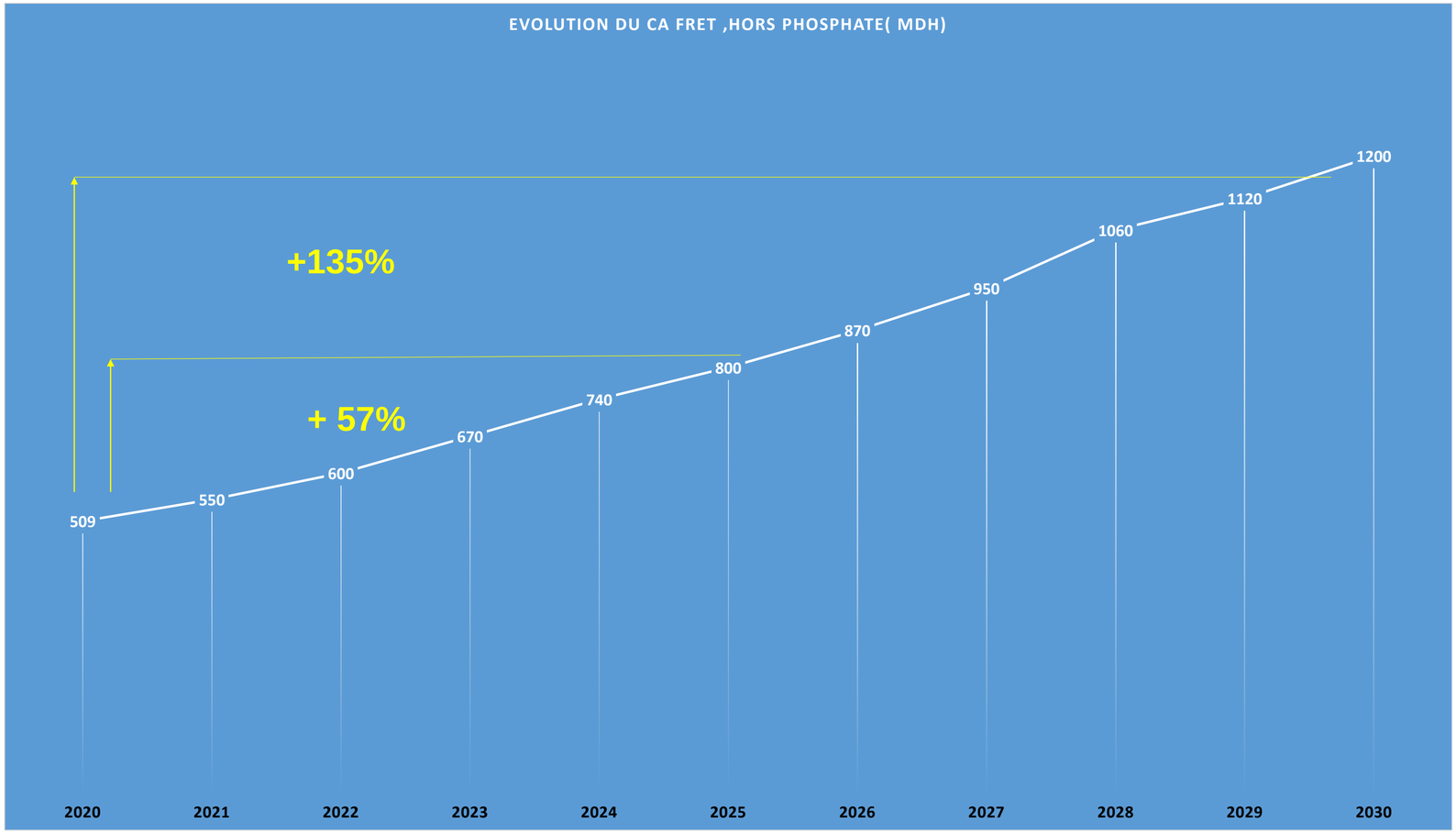
4 Projections à l'horizon 2025 et 2030

- Forte croissance , portée par des projets fret et des partenariats stratégiques (JV, OGI,…)



Meilleur positionnement sur le marché du transport et de la logistique

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5 Synthèse

❑ Quelques leviers de développement

Poursuite du renforcement de la position du FRET-ONCF par :

a. la consolidation des résultats d'ores et déjà atteints ,

b. le développement de nouveaux relais de croissance,

L'objectif étant d'offrir aux opérateurs économiques des solutions logistiques globales, efficientes et efficaces sur les plans économique et écologique.

LEVIERS DE CROISSANCE POUR LE DEVELOPPEMENT DU FRET ET LOGISTIQUE

(i) Modernisation de l'outil de production pour améliorer sa compétitivité.

(ii) Accroissement des volumes transportés des secteurs profitables et à fort potentiel

(iii) Alignement du transport ferroviaire sur la stratégie portuaire nationale à l'horizon 2030

(iv) Amélioration de la part du rail dans le marché du transport des conteneurs .

(v) Création de partenariats avec des opérateurs spécialisés en vue d'offrir un service global multimodal.

(vi) Mise en place d'un service de ferroutage de et vers certains ports.

(vii) Renforcement de la dématérialisation des échanges de données avec les clients et partenaires

(viii) Poursuite de la réalisation du programme des plateformes logistiques.

(ix) Positionner l'ONCF en tant qu'opérateur logistique global intégrant l'ensemble de la chaine e valeurs

MERCI

DE VOTRE ATTENTION