Ministry of Infrastructure and Water Management

Air - Rail initiatives at national and at European level

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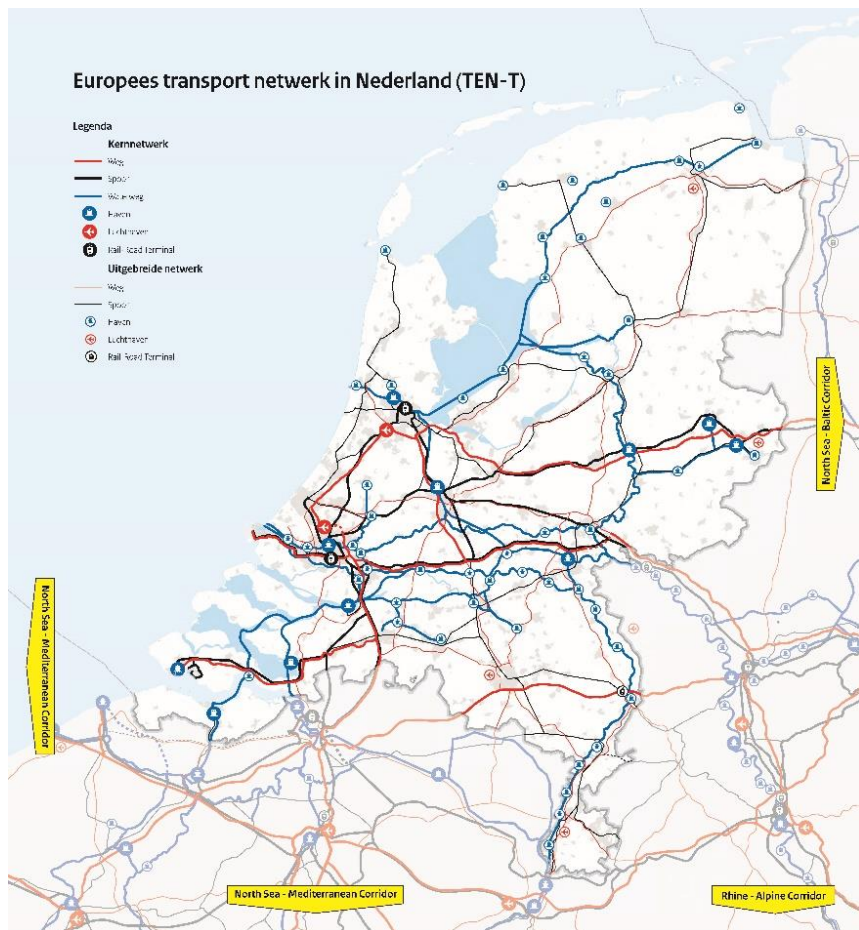- International Rail Passenger Transport Platform

Trans-European Transport Network

1. The EU TEN-T policy aims at building an EU wide effective, safe, sustainable, digital and multimodal transport network accross the EU.

2. It comprises railways, inland waterways, short sea shipping routes and roads linked to cities, maritime and inland ports, airports and terminals.

3. Instruments: policy goals, requirements to member states, applicable legislation, role TEN-T coördinators, monitoring and reporting, a netwerk in maps, and use of financial means (Connecting Europe Facility).

- ATLANTIC
- SCANDINAVIAN - MEDITERRANEAN
- MEDITERRANEAN
- NORTH SEA - ALPINE
- BALTIC SEA - ADRIATIC SEA
- WESTERN BALKANS

TENtec

TEN-T: the network

Europees transport netwerk in Nederland (TEN-T)

› Network with 3 layers: core network (completed in 2030), extended core network (completed in 2040), comprehensive network (completed in 2050), and 9 TEN-T corridors.

› Possible requirements to hundreds of nodes and potential use of CEF-funds: maritime and inland ports, terminals, airports and urban nodes

› NL and corridors: North Sea–Baltic, Rhine-Alpine, North Sea–Mediterrenean: last 2 potentially integrated in North Sea-Alpine corridor

› NL: about 85% of national investments linked to the TEN-T network

TEN-T: goals and requirements
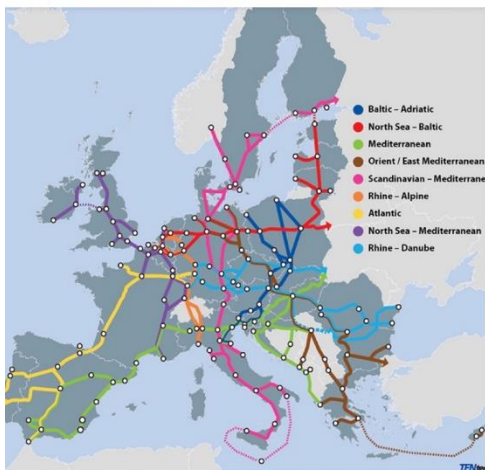
TEN-T technical requirements (exemption on request of member state)

› Digital systems (ERTMS, RIS, ITS, VTMIS)

› **Rail**: ERTMS (2030 core network, 2040 extended core network, 2050 comprehensive network), fully electrified railway lines, 100kmpu + 740 meter (freight), 160kmpu per 2040 for (extended) core network (passengers)

› **Deployment of charging and refuelling infrstructure (multimodal)**

› Road: tolsystems en tunnelsafety

› Waterways: Class IV, disclosure of ports

› **Facilitate multimodality**: better 'first/last mile' connections via more transhipment hubs and multimodal passenger hubs in cities, improve air-rail connections between airports and TEN-T network

: Holthausen Groep)

Connecting Europe Facility 2021-2027

Voorstel EC mei 2020; totaal 33,66 mrd (Lopende Prijzen 2020)
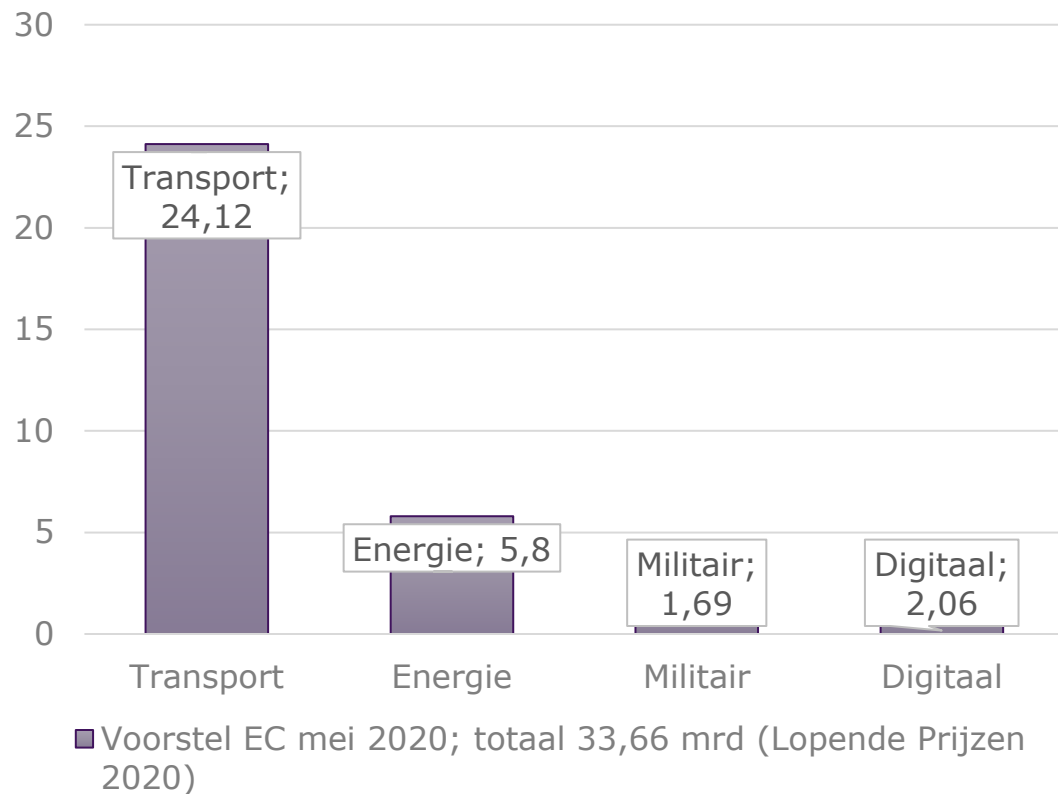
› **CEF Transport**

❑ 11,29 billion cohesion funds, only for cohesion funds countries

❑ 12,83 billion general envelope

  ❑ 60% hard infrastructure

  ❑ 40% safe, smart and sustainable infrastructure

SESAR 2020 Exploratory Research – Multimodality projects

ATM Role in Intermodal Transport

X-TEAM D2D - eXTEnded AtM for Door2Door travel https://xteamd2d.eu/	X-TEAM D2D aims to define, develop and initially validate a **Concept of Operations** for the seamless integration of ATM and Air Transport into an overall intermodal network, including other available transportation means (surface, water), to enable the door-to-door connectivity, in up to 4 hours, between any location in Europe.
Modus - Modelling and assessing the role of air transport in an integrated, intermodal transport system https://modus-project.eu/	Modus analyses the performance of the overall transport system by considering the entire door-to-door journey holistically. The project identifies (future) **drivers for passenger demand** and supply and assesses the impact on airside and landside processes and capacities. Based on these analyses, potential solutions to meet high-level European transport objectives are proposed.
TRANSIT - Travel Information Management for Seamless Intermodal Transport https://www.transit-h2020.eu/	TRANSIT aims to develop a set of **multimodal key performance indicators** (KPIs), mobility data analysis methods and transport simulation tools, allowing the evaluation of the impact of innovative intermodal transport solutions on the quality, efficiency and resilience of the door-to-door passenger journey.
SYN+AIR - Synergies between transport modes and Air transportation http://syn-air.eu/	The SYN+AIR project aims to set and develop a blueprint to establish collaboration among Transport Service Providers (TSPs), and to develop the idea of seamless door-to-door (D2D) user journey. The main objective of SYN+AIR is to **generate common goals for TSPs** that will justify the need for data sharing, hence providing a more convenient travelling experience for users.

High-performing Airport Operations

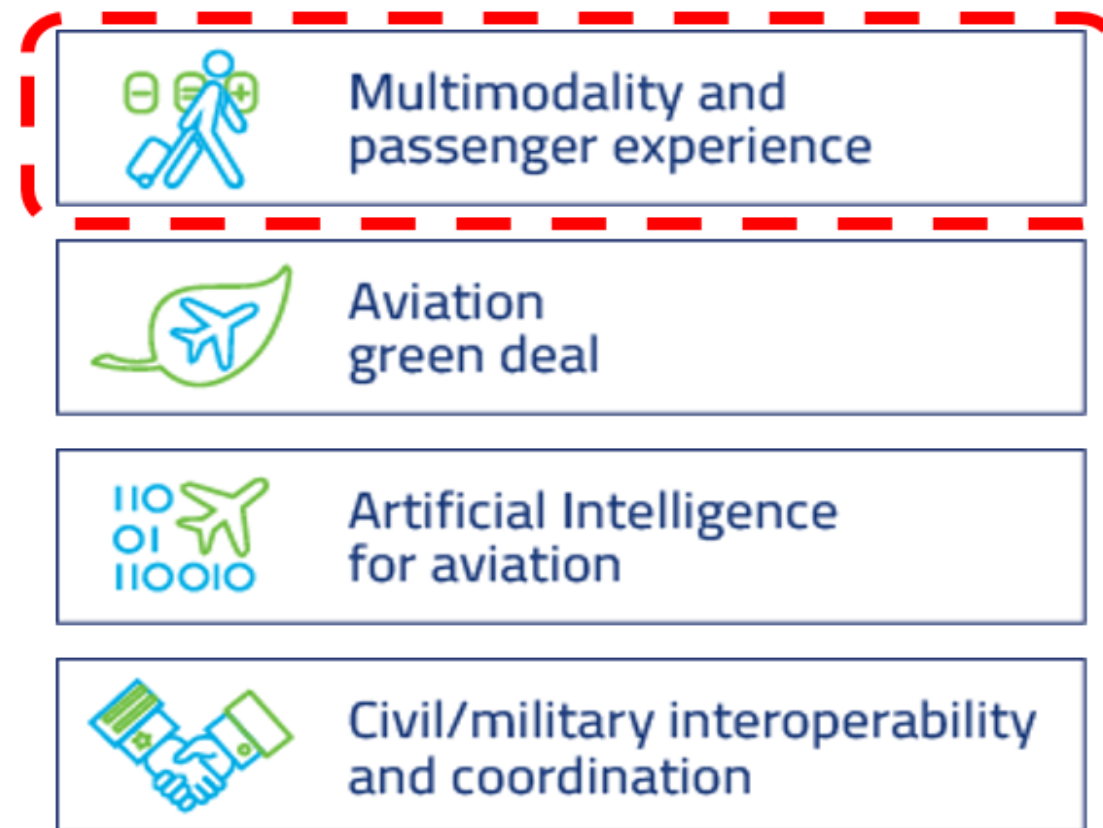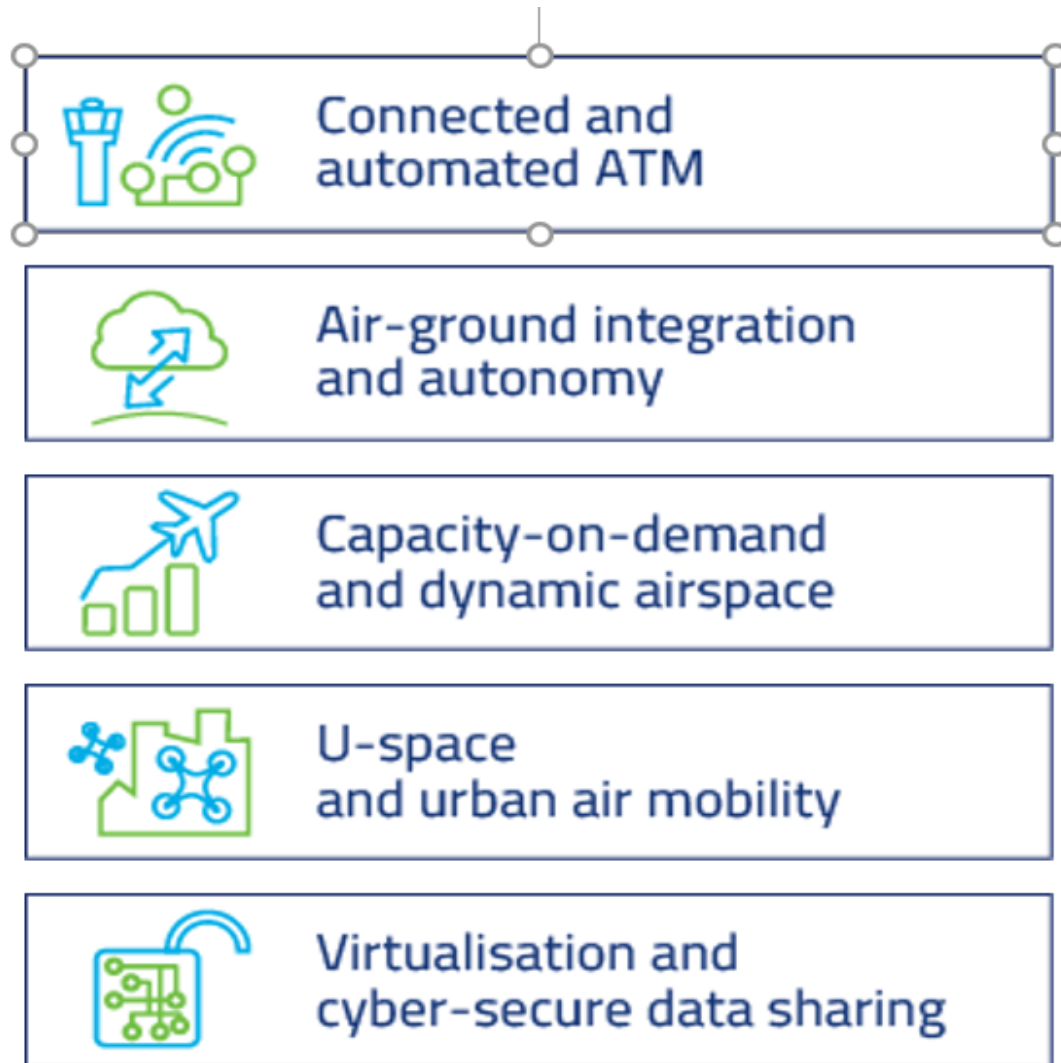|	
IMHOTEP - Integrated Multimodal Airport Operations for Efficient Passenger Flow Management https://www.imhotep-h2020.eu/	IMHOTEP aims to develop a concept of operations and a set of data analysis methods, predictive models and decision support tools that allow **information sharing, common situational awareness and real-time collaborative decision-making** between airports and ground transport stakeholders:

IMHOTEP and TRANSIT SESAR 3 R&D projects

– Key enablers for facilitating multimodality: Coordinated planning and Collaborative Decision Making (CDM) between air transport and other transport modes

– **TRANSIT:** Development of multimodal KPIs, big data analysis methods for passenger itineraries reconstruction, simulation tools to assess multimodal solutions such as air-rail synchronic timetables to optimize connection times, and a so-called intermodal disruption management tool (e.g. to share real time information and to allow replanning flight schedule). Case studies at Madrid Barajas airport and Paris CDG airports (e.g. disruption of closed metro line to the airport, disruption at RER commuter rail).

– TRANSIT | Deliverables (transit-h2020.eu)

– **IMHOTEP:** Development of concept of operations for information sharing and common situational awareness and CDM between airports and ground stakeholders; in scenarios of delayed flight departure/arrival and countermeasures proposal (e.g. fast track security and passport control, real time passenger information for later arrival at airport, change of public transport frequencies). Initial testing of prototype of developed decision support tools to the management of different disruption types at London city airport and Palma de Mallorca (no rail involved)

– IMHOTEP | Deliverables (imhotep-h2020.eu)

SESAR 3 programme to deliver a digital European sky: 2021-2031 mandate based on HEU 2021-2027

- Connected and automated ATM
- Air-ground integration and autonomy
- Capacity-on-demand and dynamic airspace
- U-space and urban air mobility
- Virtualisation and cyber-secure data sharing

- Multimodality and passenger experience
- Aviation green deal
- Artificial Intelligence for aviation
- Civil/military interoperability and coordination

UIC Air - Rail implementation project (2022-2024)

- Since 2019, via UIC Passenger Services Group: aimed at facilitating the development of intermodality between air and rail

- Main goals for intermodal integration: increase knowledge and awareness of UIC and IATA members, to identify the main technical barriers, to provide technical guidance and specifications', to provide technical solutions including enabling platforms, to encourage open innovatation

- Key barrier to better air-rail integration is related to interoperability issues: compatible procedures, standards and specs are necessary for integrated processes and interoperable systems.

- The joint work of the UIC and IATA intermodal working group aims at defining a mapping among relevant air and rail industry specifications, e.g. on intermodal IT systems and ticketing, to enable seamless combined customer journeys and facilitate interoperability

- UIC-IATA Memorandum of Understanding signed in January 2020:

- Customer-centric intermodal travel | Airlines. (iata.org)

- Passenger Activities at UIC

- Passenger Services Group | UIC - International union of railways

Platform International Rail Passengers (IRP)

› The Platform envisages a holistic approach to bringing European countries and sector initiatives together

› To improve framework conditions for developing international rail passenger services

› Air - Rail intermodality is one of the topics of the Platform

› In order to focus on different themes, the Platform is divided into the following four subgroups:

Customer experience and digitalisation

Network of international passenger services

EU Green Deal: infra bottlenecks & interoperability issues

Regulatory framework

More information IRP:

› [2022 Progress Report of the Ministerial Platform on International Rail Passenger Transport | Publication | The Netherlands at International Organisations (permanentrepresentations.nl)](#)

› [IRP Progress report 2021:](#)

https://www.permanentrepresentations.nl/documents/publications/2021/06/03/better-rail-connections-for-europes-passengers

› [Ministers declaration on international rail passenger transport 4 June 2020:](#)

– [https://www.permanentrepresentations.nl/permanent-representations/pr-eu-brussels/documents/publications/2020/06/04/political-statement-for-coalition-of-the-willing-development-international-rail-passenger-transport?s=09](#)

› position paper from 30 January 2020

› [https://www.tweedekamer.nl/kamerstukken/detail?id=2020D06910&did=2020D06910](#)

Air - Rail initiatives at national level: Action plan Air and Rail

› National goals

› Action plan Air and Rail

› Conditions for intermodality

› Measures within the Action plan

› Pilot KLM-Thalys

National goals

› Luchtvaartnota (2020): *"By making alternative means of transport for short distances more attractive, the government wants to make room for long-haul flights at Schiphol."*

› Coalition agreement (2021): *"We want rail transport in Europe to become a good alternative to flying as soon as possible, both in terms of time and cost."*

3. Action plan Air and Rail

› KLM, Schiphol, NS and ProRail indicated in press that they believed international rail transport should be improved.

› In 2018, the Ministry of Infrastructure and Water Management took the lead to reach a joint Action plan with these parties to bring Air and Rail closer together.

3. Action plan Air and Rail

The Action plan was presented in November 2020 and focused on the 6 most promising destinations.

These destinations represented 14% of the flights at Schiphol before the Covid-19 pandemic.
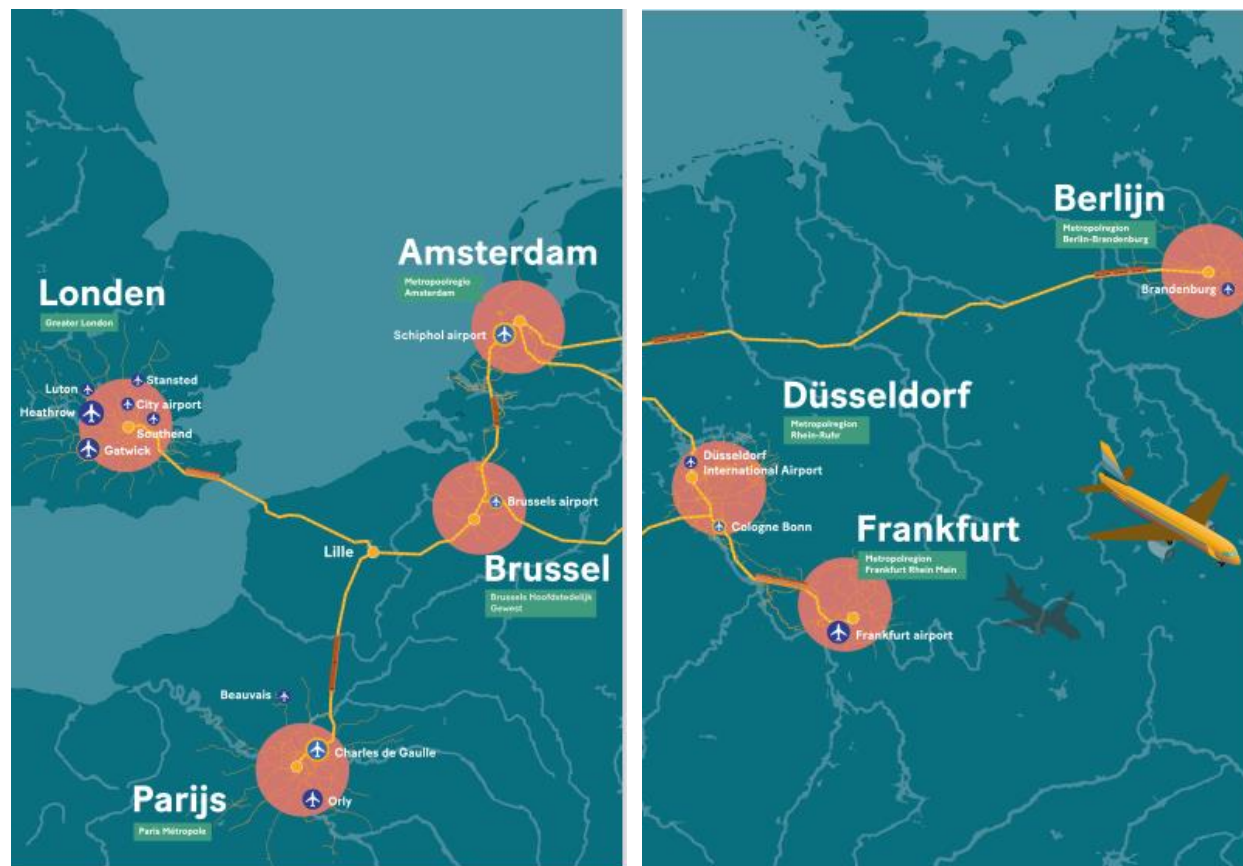
Conditions for intermodality

› Air and Rail arrival and departure times should align

› Interoperability of IT systems between air and rail carriers (including for check-in, boarding, rebooking passengers in case of disruptions, ...)

› Seamless transfer at the airport

› Luggage solution

Measures within the Action plan

› Accelerating existing connections and increasing frequency

› Search for luggage solution for transfer passengers

› Explore digital solutions for combi-tickets

› Improving booking facilities for international train tickets

› Investigate the possibilities to add trains in the early morning and late at night
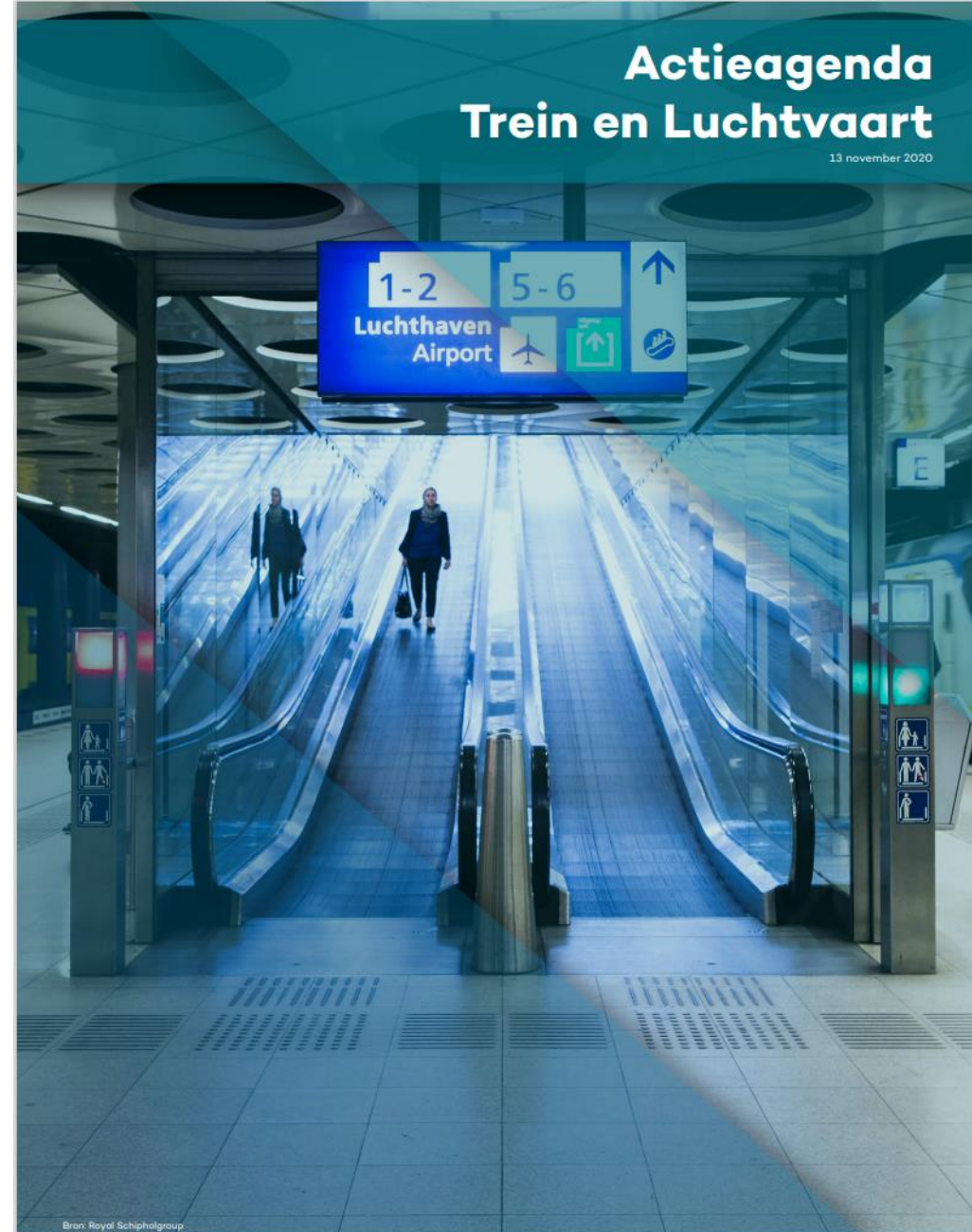
Pilot KLM-Thalys

› During summer 2022, KLM and Thalys started an AirRail pilot on the journey Schiphol-Brussels.

› The passenger was offered:

    - standard KLM customer communication regarding travel preparation, check-in, transfer information, etc.

    - check-in for entire journey and boarding passes for all segments.

    - the guarantee that KLM will take care of the customer in case of disruption at the train or plane.

› What could not be offered:

    - the possibility to check-in luggage for the whole duration of the journey.

Einde presentatie