



Date 11. June

European Passengers' Federations Conference 2022

Day 2





Welcome and coffee



Good to see you!

Find your name tag and grab a cup of coffee or tea and a croissant







Recap and introduction to the second day



9.00-9.15: Welcome and coffee

9.15-9.20: Recap and introduction to the second day

9.20-9.45: Keynote Speaker:

Sven Marius Utklev Gjeruldsen, Bane NOR

9.45-11.00: Cross border public transport commuting experiences

Julia Quitmann (Aachener Verkehrsverbund) (Germany-Belgium-Netherlands)

Marco Gariboldi (UTP – Associazione Utenti del Trasporto Pubblico) (Italy-Switzerland)

Sandrina Lohse-Larsen/Søren Bom (Greater Copenhagen) (Denmark-Sweden)

11.00-11.15: Break

11.15-12.20: Workshop: Cross border public transport commuting

Co-creation roundtables by geographic location to understand best practices, points of improvement and lessons learnt.

Presentations from the working groups: Sharing best ideas/practices.

12.20-13.20: Lunch





Recap and introduction to the second day



13.20-13.40: Keynote speaker

Sophie Buyse, Deutschebahn

13.40-15.10: Involving the end users in the development of public transport

Louise Coward (Transport Focus)

Sandra Lima (EPF)

Vassilis Agouridas (UIC-2)

Gitte Kjær-Westermann (Passagerpulsen)

15.10-15.30: Coffee break

15.30-16.10: Panel discussion from afternoon session: What are the benefits of involving the end users, and how is it done best?

16.10-16.30: Closing speaker

Josef Schneider (EPF)

19.00: Closing dinner

Dinner at Food Club





Some practical informations



- Toilets down the hall
- Photos during the conference
- No smoking in the courtyard

- Download the Slido app (#EPF2022)
- WiFi: Vartovguest
- Password: farve271463









Sven Marius Utklev GjeruldsenBane NOR









Towards a better European passenger rail network

Presentation to the EPF conference 2022 Copenhagen, June 11th 2022

ProRail

BANE NOR



European rail infrastructure managers have three motives for a better international passenger rail network in Europe



Jeroen Wesdorp



Thomas Moerman



Sven Gjeruldsen



Better connectivity



Sustainable mobility



Optimized use of infrastructure









This presentation shows that we can improve the international passenger rail network when we work together from a European perspective. And contribute more to sustainable mobility.

- Urgency: connectivity & climate.
- 2 Context: rail market and modal shift.
- 3 Eurolink: focus and rail network design philosophy.
- Eurolink: first results.

1. Urgency: connectivity & climate



European connections to Italy in 1974

• Courtesy of Walter Finkbohner, former-director of SBB.

Connections \equiv ROME - STOCKHOLM Fr 10.06.2022 07:25 - 13:34 30:09 chg. 7 FR - EC - ICE - D - IC - R - Bus - X2 Roma Termini Stockholm Central Long trip: departure: 10.06.2022, arrival: 11.06.2022 Current information available. R Includes trains requiring a reservation 07:25 - 15:18 31:53 chg. 4 FR-EC-ICE-D-R Roma Termini Stockholm Central Long trip: departure: 10.06.2022, arrival: 11.06.2022 Current information available. R Includes trains requiring a reservation 09:20 - 17:37 32:17 chg. 9 FR - EC - ICE - RE - RE - IC - ICL - R - Bus - X2 Roma Termini Stockholm Central Long trip: departure: 10.06.2022, arrival: 11.06.2022 Current information available. R Includes trains requiring a reservation chg. 8 09:20 - 18:45 33:25 FR - EC - ICE - RE - RE - IC - ICL - R - X2

Roma Termini

Scandinavian connections to Italy in 2022

Print screen from «DB Navigator»

w Italy's high-speed trains ped kill Alitalia

CNN • Updated 14th October 2021







Today we see growing ambitions on a European scale. A call for fast steps, better connectivity and more sustainable mobility.

- EC Sustainable & Smart Mobility Strategy aims for 2x number of high-speed passengers in 2030 and 3x in 2040. Action plan published last December 2021.
- The International Rail Passengers Platform is since Spring 2020 a cooperation between member states, EC and sector parties.
- Infrastructure managers contribute with the **Eurolink** project for European network development.









How Trans Europe Express trains could be making a comeback

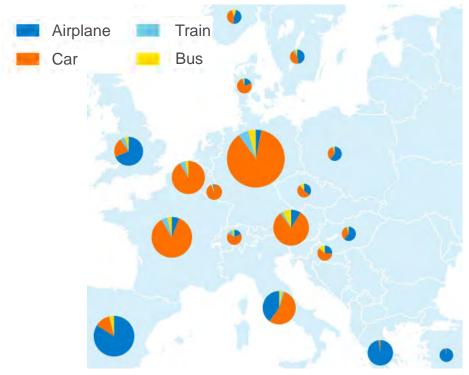
Ben Jones, CNN . Updated 5th February 2021



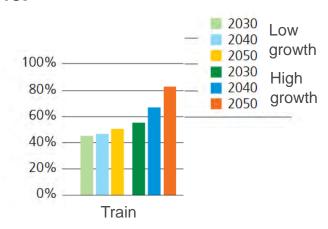
2. Context: rail market and modal shift.

Per year millions of people travel cross-border by rail within Europe. This number is growing.

For instance to/from the Netherlands, rail accounts for 6% of all leisure trips to Belgium and Germany, and 17% for urban destinations.



Modal split from/to the Netherlands in 2018. Source: KiM, Mobiliteit bij vakanties naar het buitenland (2020) We expect a pick-up of pre-COVID trends and a further 40 - 60% autonomous growth towards 2030/2040.



Important connections show stronger growth:

- Amsterdam Berlin could increase with 80%.
- Amsterdam Köln up to 100%.
- Amsterdam London up to 400%.

Passenger market forecast to/from the Netherlands 2030-2040-2050 Source: ProRail, IMA (2021)

Growth also means modal shift from air (and road) to rail. Rail can contribute up to 8 Mton CO₂ reduction in Europe.

In the Netherlands rail and air sector parties defined a joint 'Action agenda train and aviation' to focus efforts.

- Substitution of flights by trains to London, Paris,
 Brussel, Düsseldorf, Frankfurt and Berlin.
- Alignment with long-distance and sustainable aviation.

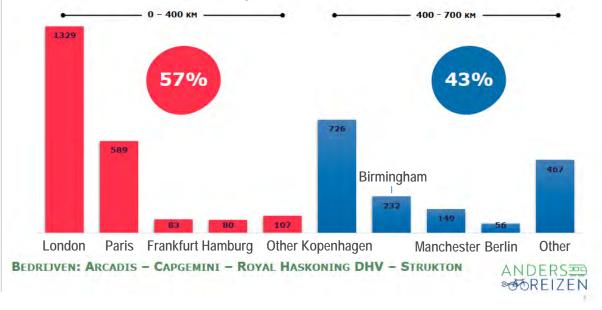
Other initiatives in France and Germany focus first on reducing national aviation.

Substitution in Europe can **reduce CO₂ emissions** with 2 – 8 Mton, roughly equivalent to all road traffic in the Netherlands (Rebel, 2020).

Dutch companies are investigating how to change their travel behaviour.

- Train up to 700kms by default, aviation by exception.
- Frequent air destinations match the action agenda.

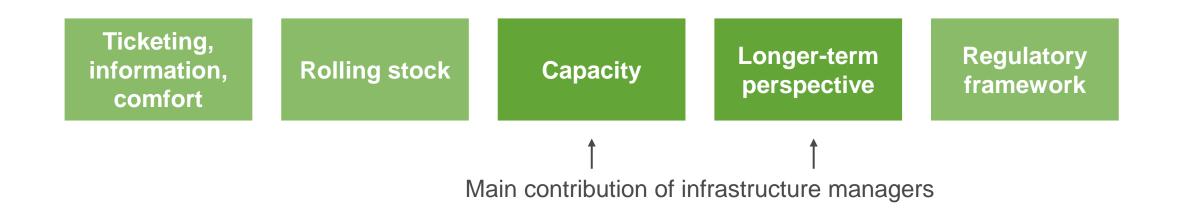
Air destinations of 5 companies to/from the Netherlands in 2019.



3. Eurolink: focus and rail network design philosophy

Passengers may expect improvements throughout the chain

- The international train is an attractive product, but many aspects can be improved.
- For the operator a successful train service stems from a combination of ingredients. This determines, with or without government intervention, a better offer to the passenger.



Think European | Eurostar Amsterdam – London



Air-rail substitution

>50-60 daily return flights (pre-Covid)
Amsterdam – London



Suboptimal use of infrastructure



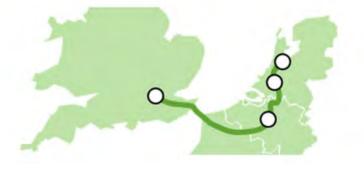
Suboptimal travel times from Amsterdam to London:

- Before 2018 >4h30
- 2020 (direct) ~4h10
- 2021 (direct)~3h55 4h10
- Optimal (direct) ~3h45

From national timetables first and international second



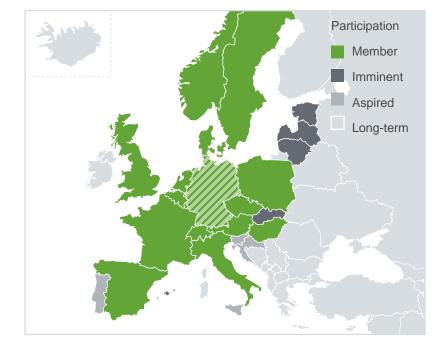
To international timetable first





Eurolink forms a growing platform for international network development

- Our team of experts in network development is growing.
 - Coreteam of InfraBel, ProRail, ÖBB, SBB, RFI and Správa železnic.
 - Eurolink develops timetable concepts 5-10-20 years into the future.
- Contributions to International Rail Passenger Platform.
- Partnership with operators.
 - Train operators can supply market insight and specifications. With operators and stakeholders we can identify feasible and viable steps forward.
- Complement the formal capacity allocation process.
 - 5-year perspective and stability as is being developed by RNE in TimeTable Redesign (TTR).











































Our design philosophy for international network development contains different elements

Higher frequencies



- More cross-border connections
- Systematic slots with potential for growth

Shorter travel-times



- More attractive slots
- Needless run time margin to be avoided

Direct connections



- Much more direct connections throughout Europe
- Not just link two countries but three or even more

Optimized transfers



- Attractive transfers
- Pan-European integral clock face timetable

Twofold approach to infrastructure

- Short to medium-term
 - Medium to long-term
- Optimal use of existing and planned capacity
- Smart, adaptive and targeted investments

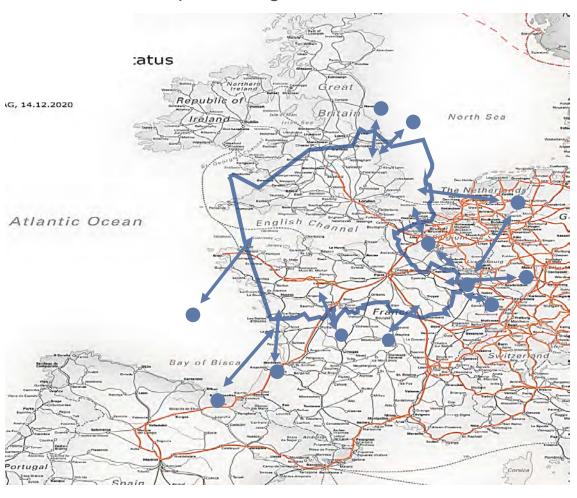




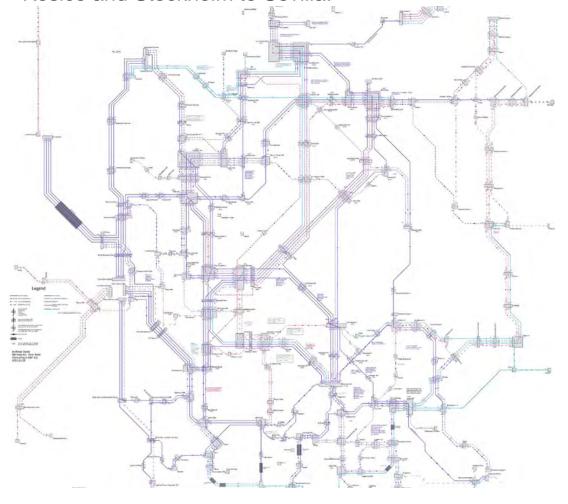


A common capacity model and timetable structure

Scope with mature design suitable for market analysis and discussions with operators, governments and



Underlying timetable structure, from Glasgow to Kosice and Stockholm to Sevilla.



3. Eurolink: first results



A high-performance international network on expected infrastructure around 2030 could look like this

• High frequency, shorter travel-times, more direct services and better connections.

Cohesive network of corridors.

Quality hubs, also to aviation and other uk & modalities.



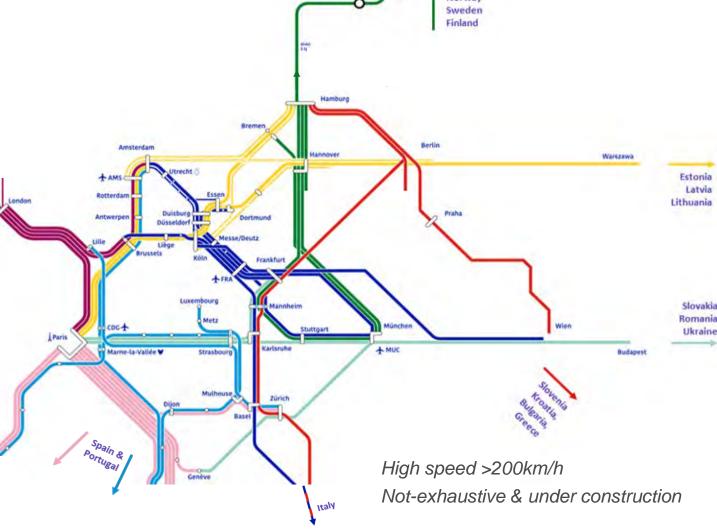


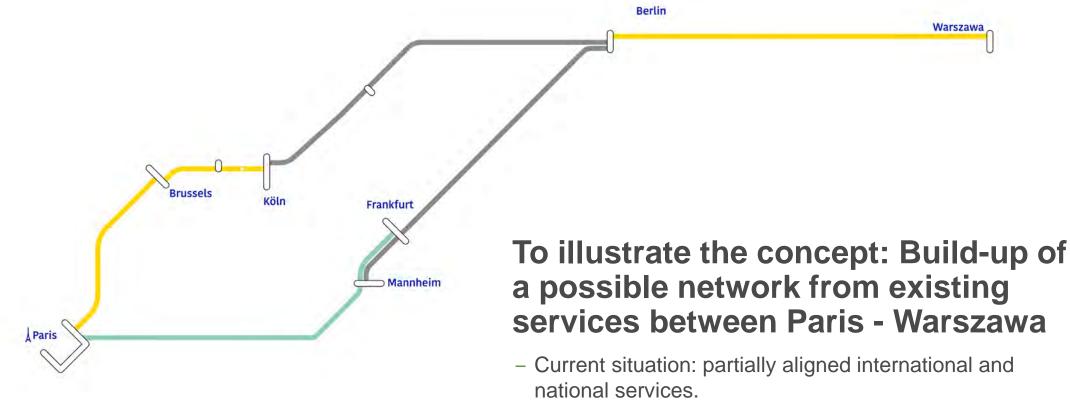




 Cadenced and systematic slot structure for market growth.

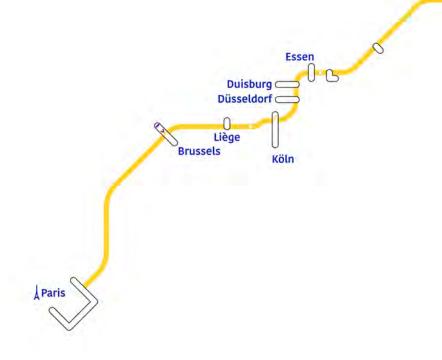
 Possible on expected infrastructure (further microscopic study to be done).





Paris to	Today
Köln	3h26
Berlin	8h20, 1 change
Warszawa	15h09, 3 changes

^{*}Current travel times are based on public information for April/May 2021 and may be influenced by COVID.

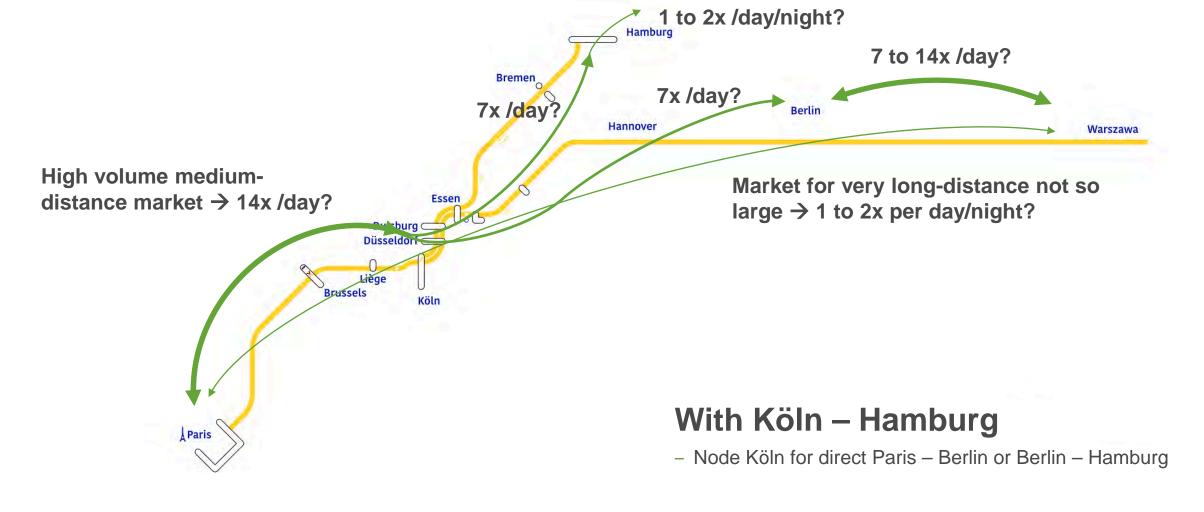


In Eurolink we align slots to create long-distance opportunities

- Systematic and perhaps preferential <u>slots</u>. Basis for alignment, product development by the market and growth.
- Current international and national slots combined.
- Hourly services possible.

Paris to	Eurolink	Today
Köln	3h19	3h26
Berlin	8h05	8h20, 1 change
Warszawa	13h44	15h09, 3 changes

^{*}Eurolink travel times on this and following slides are indicative and subject to change

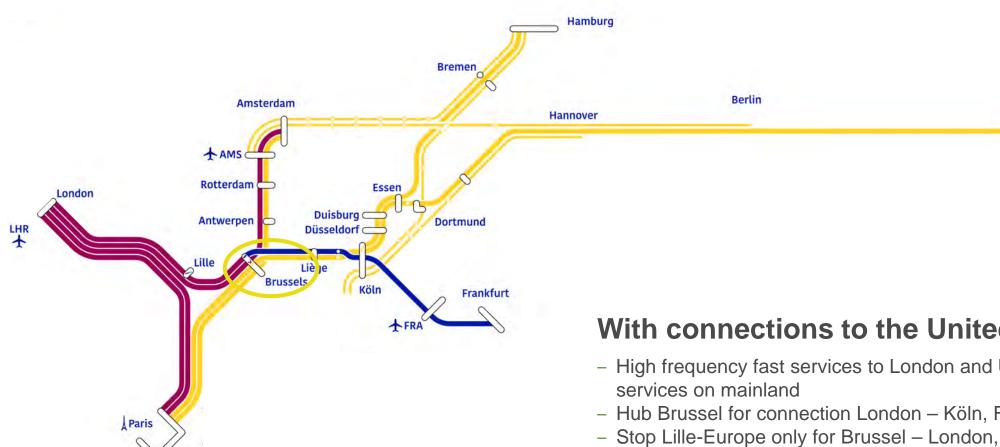


Paris to	Eurolink	Today
Hamburg	7h00, direct	8h04, 2 changes



- Amsterdam Warsawa also conceivable.
- Hamburg Amsterdam via Osnabrück Alstadt.

Amsterdam to	Eurolink	Today
Hamburg	4h48	5h05, 1 change



With connections to the United Kingdom

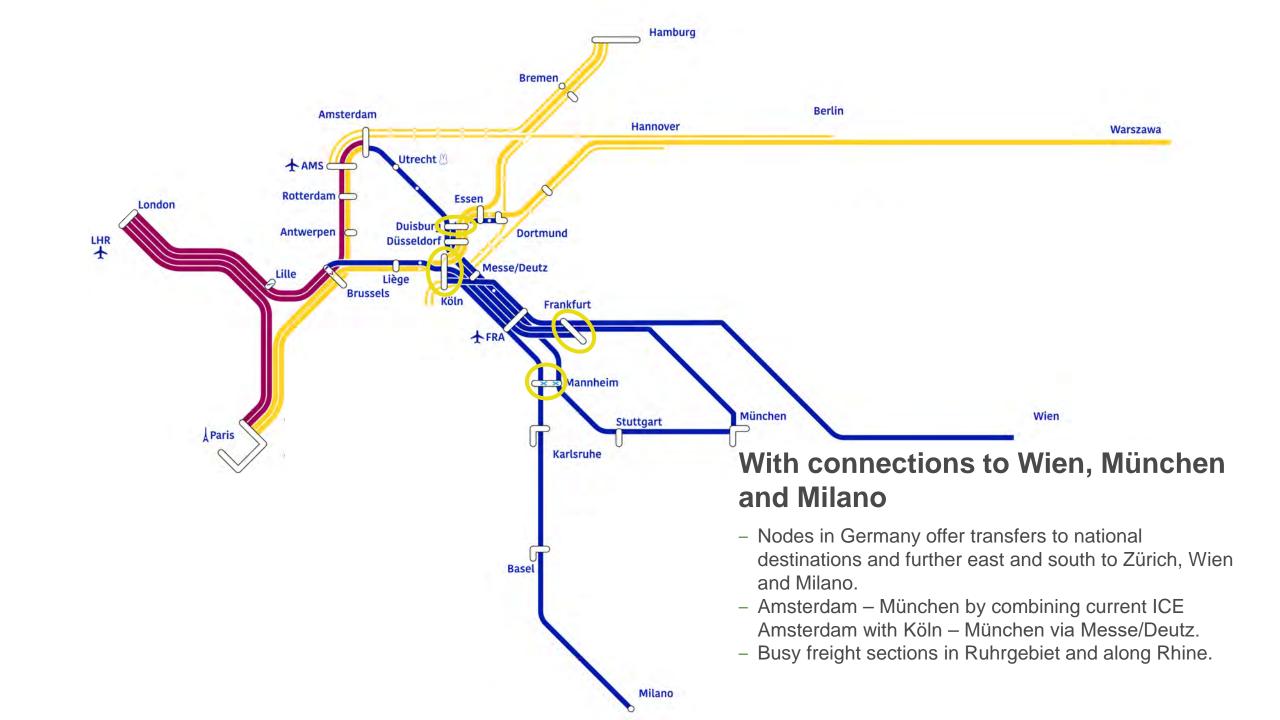
- High frequency fast services to London and UK fit in with yellow

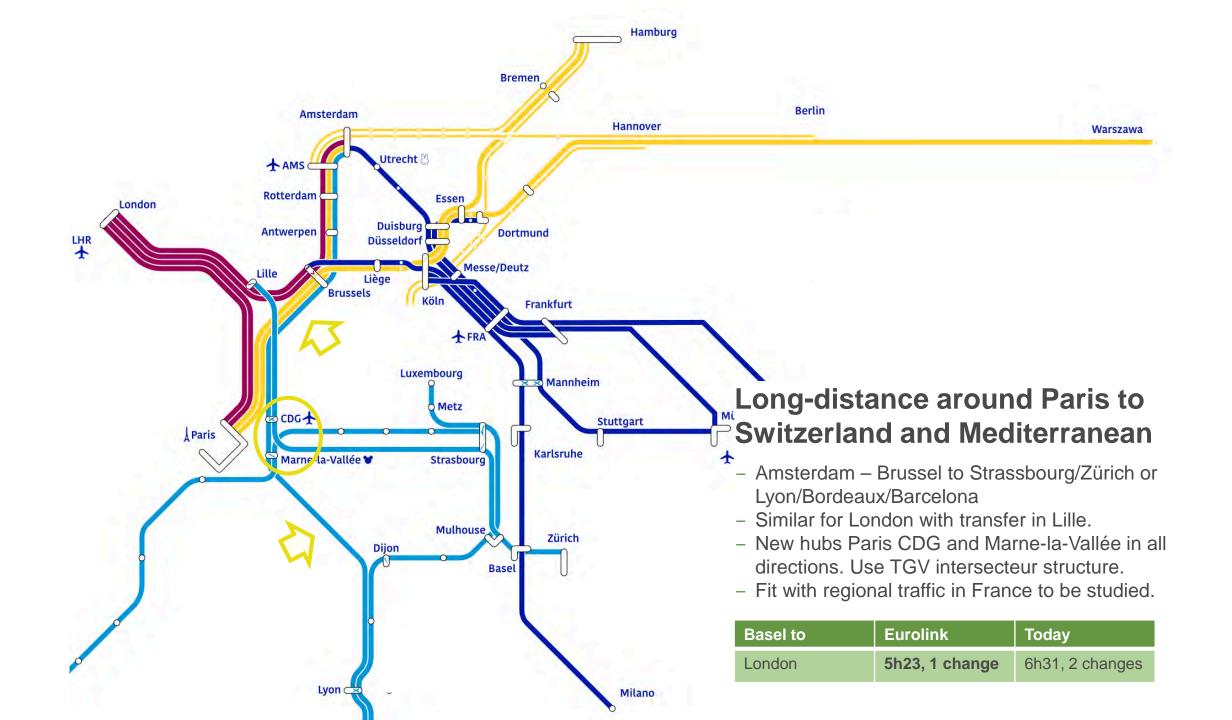
Warszawa

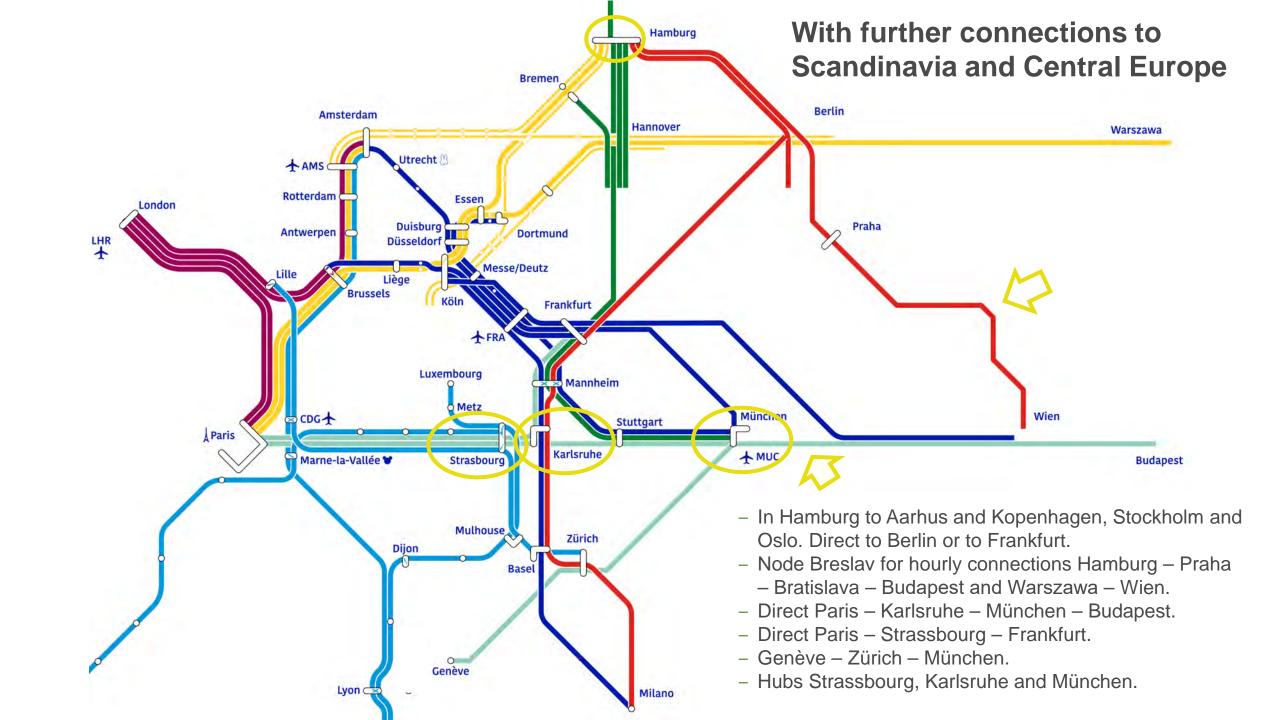
- Hub Brussel for connection London Köln, Frankfurt and Berlin.
- Stop Lille-Europe only for Brussel London, Paris CDG and national trains.

London to	Eurolink	Today
Paris	2h24	2h36
Brussel	1h54/2h00	2h00
Amsterdam	3h44/4h10	4h10*
Köln	4h24, 1 change	6h17, 1 change
Frankfurt	5h32, 1 change	6h04, 1 change

^{*} Excl. 12' stop Lille

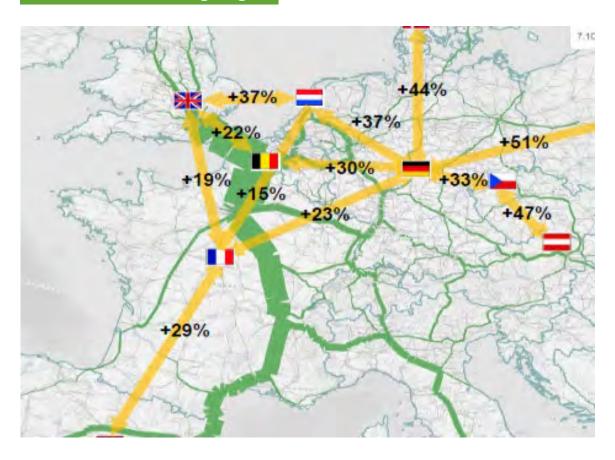






Preliminary result | Eurolink 2030 concept leads to around 20-30% extra cross-border passengers. This can be improved.

Evaluation is on-going



- Good results in densest parts of Europe and between major cities.
- Effects of better long-distance timetabling in/around core area NW-Europe only.
- Extra growth varies per country-pair.
- Excludes domestic growth. Optimal fit with national/regional to be added.
- Low policy scenario.
- Further rail improvements lead to higher growth, for instance:
 - Better passenger experience (information, booking, traveller rights, hubs/comfort).
 - Pricing and through-ticketing.
 - Improved cross-border performance.

Together we create a better offer to the passenger, starting tomorrow!

- From easier ticketing and better travel experience,
- To more, faster and better connected trains,
- And quality hubs to other trains and modalities.

So rail can contribute more to sustainable mobility.











Cross border public transport commuting experiences



Julia Quitmann

Aachener Verkehrsverbund (Germany-Belgium-Netherlands)

Marco Gariboldi

UTP – Associazione Utenti del Trasporto Pubblico (Italy-Switzerland)

Sandrina Lohse-Larsen/Søren Bom Greater Copenhagen (Denmark-Sweden)









Cross border public transport commuting experiences



Julia Quitmann
Aachener Verkehrsverbund
(Germany-Belgium-Netherlands)











easy**Connect -**Seamless mobility across borders

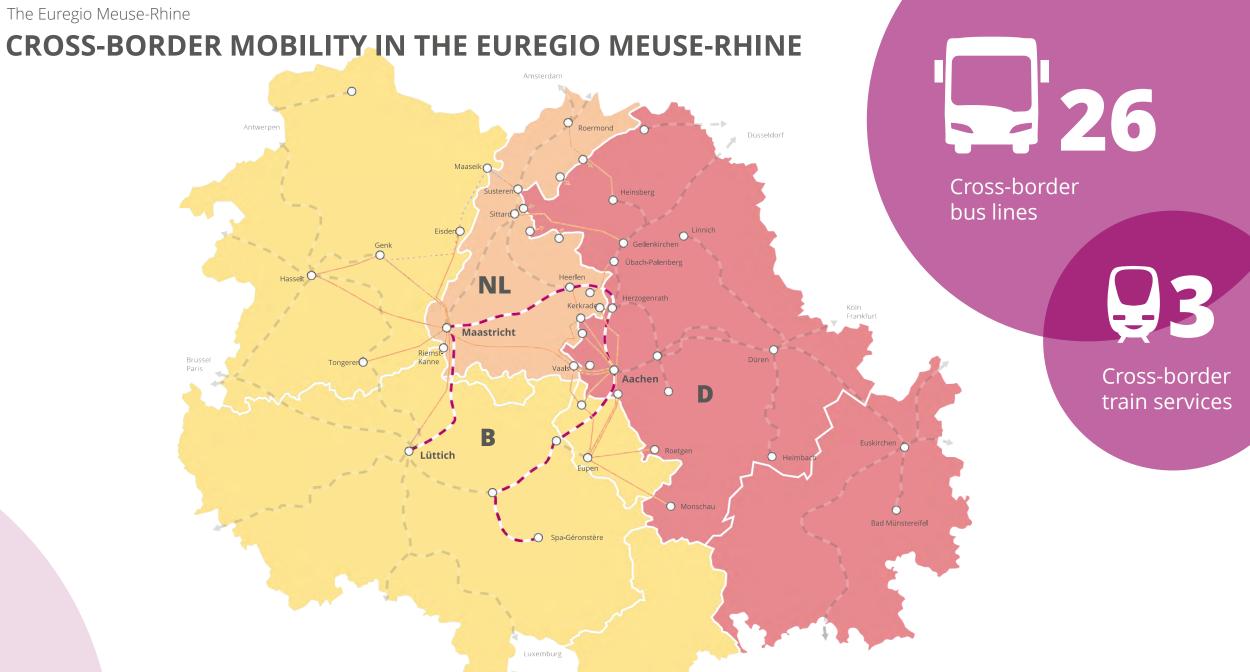
European Passenger Forum, Copenhagen





avv.de

AACHEN AND THE EUREGIO MEUSE-RHINE Oslo Stockholm Hasselt Maastricht Copenhagen Dublin Aachen Berlin Warsaw Liège ^o London Amsterdam Eupen Brussels 4 Prague Vienna Paris Budapest Bucharest Belgrade Rome Madrid Lisbon Athens



BARRIERS FOR CROSS-BORDER PUBLIC TRANSPORT

- Infrastructure (e.g. power and signaling systems)
- Operation (e.g. timetabling, tendering)
- Fares (e.g. differing fare systems)
- Ticketing (e.g. interoperability of electronic tickets)



Passengers want to travel worry-free and seamless, even across national borders!

These demands can only be met if all partners in a cross-border region cooperate intensively!

HOW CAN THE BARRIERS BE REMOVED?

o **Infrastructure:** Purchase of multi-system vehicles



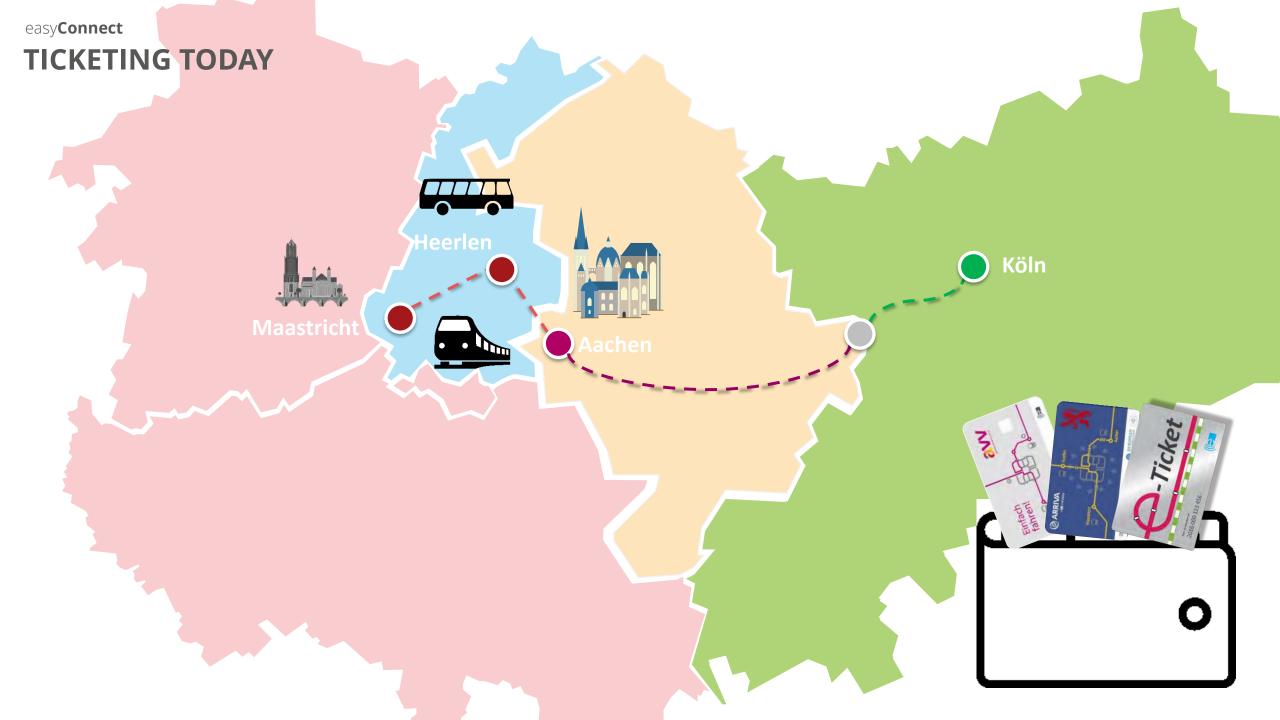
o **Operation:** Cross-border agreements and jointly issued calls for tender

o **Tariffs:** Development of cross-border tariffs and interoperable tariffs



Ticketing: Solutions for interoperable ticketing (ID-Ticketing)





ID-BASED TICKETING IN THE EUREGIO MEUSE RHINE

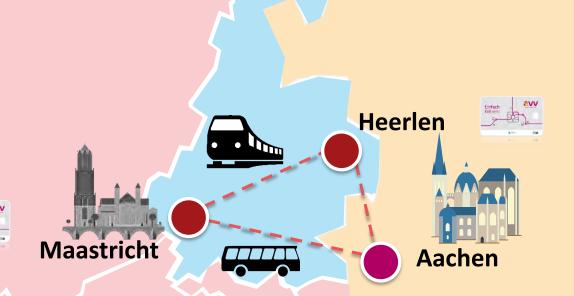
BORDERLESS TICKETING



EUROPEAN TRAVELLERS CLUB (ETC)

ID-Ticketing





01/2016-12/2017

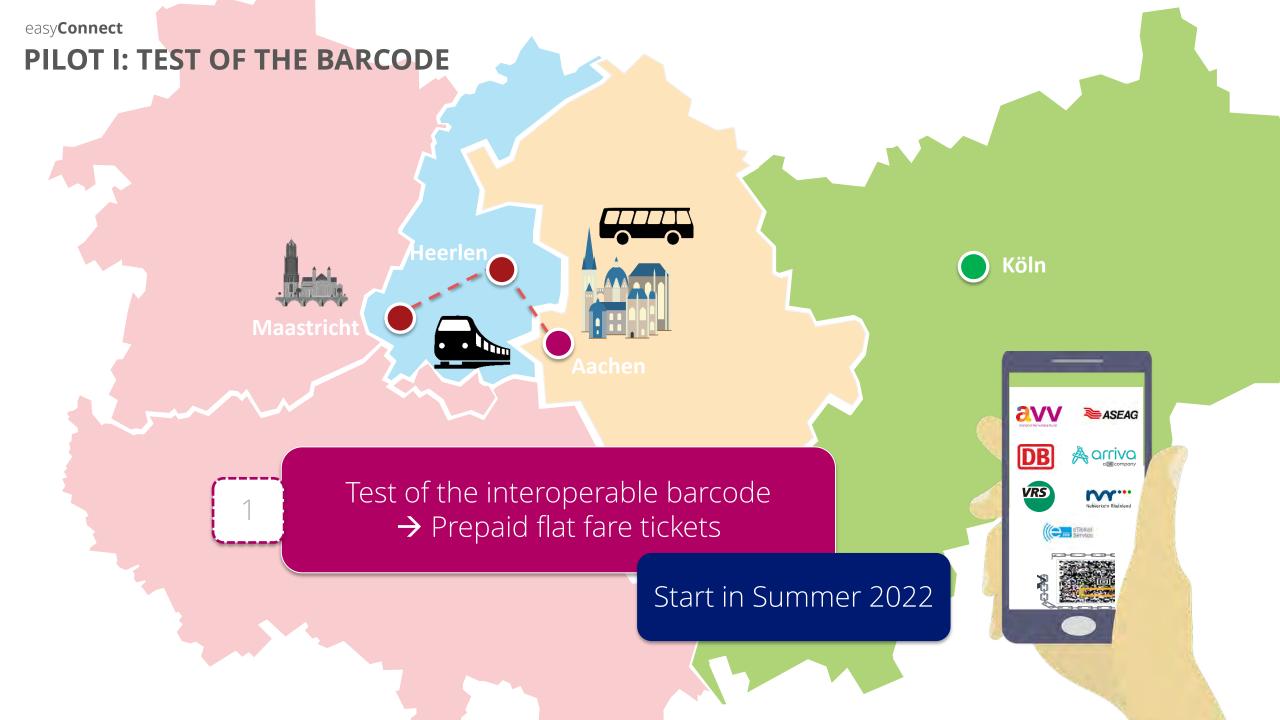
Development of system architecture for ID-Ticketing based on public transport chip cards

12/2017-03/2018 Pilot between Aachen (GER) and Maastricht (NL)







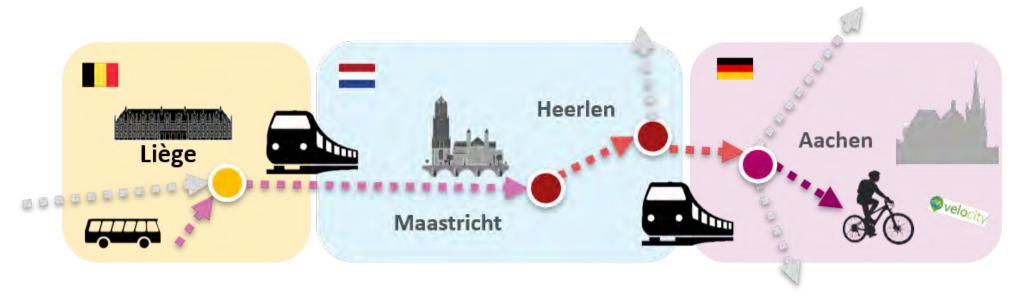






OUR VISION:

CROSS-BORDER PUBLIC TRANSPORT IN THE FUTURE













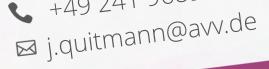
Julia Quitmann

Departement for Cross-Border Public Transport

Aachener Verkehrsverbund GmbH



+49 241 96897-34





Cross border public transport commuting experiences



Marco Gariboldi UTP – Associazione Utenti del Trasporto Pubblico (Italy-Switzerland)







Railway border crossings between Italy and Switzerland

Overview and perspectives

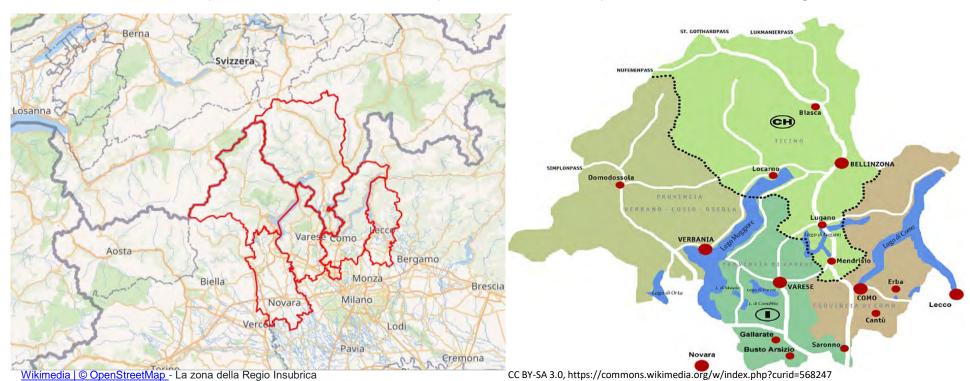
Marco Gariboldi – UTP Utenti Trasporto Pubblico



The context

Regio Insubrica:

- Area 14,781 km² Pop. 6.5 million 441/km²
- Common language, geographical, cultural and economic area
- Milan metro area (pop. 5 million)
- Canton Ticino (pop. 350,000 75,000 cross-border workers)
- → intense daily cross-border mobility for work, study, tourism, shopping...



Railway border crossings

Between Italy and Switzerland there are five railway border crossings:

- Simplon tunnel (Brig Domodossola line)
- Camedo (Domodossola-Locarno line, so called «Vigezzina»)
- Luino (Luino-Bellinzona line)
- Chiasso («Gotthard line» Milano-Lugano-Arth Goldau)
- Tirano («Bernina Express line», Tirano-St. Moritz)



The Italian-Swiss cross-border rail traffic

The peculiarities of Italian-Swiss cross-border railway traffic are the following:

- High long-distance passenger traffic from Switzerland, Germany, East France to Milan and the rest of Italy
- Very high regional traffic between Lombardy and Canton Ticino, to a lesser extent also between Brig and Domodossola
- Very high freight traffic, from North Europe through Lötschberg, Simplon and Gotthard tunnels, directed to all the Italian peninsula and to the main ports
- After the construction of the Lötschberg, Gotthard and Ceneri base tunnels, the railway traffic, passengers and freight, has been widely incremented
- High tourist traffic on the meter-gauge lines (Vigezzina and Bernina)

Technical issues and conflicting needs

- Different voltage, signalling systems, tunnel clearances
- → need of a dedicated fleet
- Conflicting paths between freight and passenger trains
- Conflicting paths between long-distance and regional passenger trains
- No major capacity upgrades on the Italian side
- Different conditions of carriage for long-distance and cross-border local trains
- No single governance for passenger services

Domodossola – 1 station, 5 companies, no talking...

The railway services on the Simplon line are actually the following:

- Long distance services: 7 EC Geneva/Basel Milan + a few IC services Basel-Domodossola, operated by SBB/Trenitalia
- Interregional services: few trips between Brig and Domodossola operated by SBB
- RegioExpress services: service with 120min headway between Bern and Domodossola, via old-Lötschberg line, operated by BLS

On the Italian side there are two services:

- **Regional services**: service with 120min headway stopping at all station between Domodossola and Milano P.ta Garibaldi, operated by Trenitalia
- RegioExpress services: service with 120min headway between Domodossola and Milano Centrale, operated by Trenord

Domodossola – 1 station, 5 companies, no talking...

Problems:

- The EC services are very crowded, in particular in the peak periods (Weekend, Swiss holidays), and have compulsory seat reservation
- There is no alternative for the cross-border trips with the RegioExpress services since the connection time is too long

Opportunities, with a better organization of timetables:

- De facto increase the frequency of the international service and create a good alternative to all the passengers that cannot buy a seat on the EC trains
- Create new connection between intermediate stations, which have a very high tourist potential

→ more rail passengers and less cars and flight trips

Luino line – reserved for freight

The railway peculiarity of Luino-Bellinzona are the following:

- High freight traffic, from Northern Europe through Gotthard tunnel, directed to intermodal terminal HUPAC in Busto Arsizio, Novara freight terminal and Genova port – bypassing Milan
- Modest passenger service (line S30 with a headway of 120min in the afternoon and a long time without service during the morning)

Future development:

- Long-term plans for construction of a new one-track tunnel across the border to increase the capacity for freight traffic
- increase the passenger service to a 60min headway for the line S30



Gotthard Line – who decides?

Conflicting international and regional timetables:

- Since 2008 SBB and Trenitalia have decided the slot for the international trains
- From this date, all the regional offer has been built according to that
- A few years ago the timetable of international trains has been changed, shifting it by
 15min, creating a lot of conflict with the regional traffic, in particular in Lombardy

Lack of interoperable rolling stock and infrastructure issues:

- Suburban line S11 Milan-Como-Chiasso is partially operated with new double-deck trains but these cannot pass in the Monte Olimpino 1 tunnel, due to clearance issues → the intention of Trenord is to cancel this service from Como to Chiasso
- Actually there are no connections at Como → if S11 service is limited at Como, the cross-border regional traffic will be split, loosing a lot of users

TILO network – Ticino-Lombardia regional rail

- New train company from 2004 Joint Venture FFS/SBB-Trenord
- 54 FLIRT dual-voltage 4-6 cars EMUs
- 4 local (S) and 1 fast (RE) cross-border regional services between Canton Ticino and Regione Lombardia
- 14 million passengers in 2021 (16.7 in 2019)
- 7 million train-kms
- Services integrated with both Swiss and Italian local rail networks, including Milan's
 S-Bahn



TILO network – Ticino-Lombardia regional rail



Year by year the Tilo network has been improved, adding lines and improving the existing ones.

- All the S lines have at least 30min headway except for the S30
- The new Ceneri base tunnel has allowed faster and direct RE connection between Locarno, Lugano and Milan
- Reopening of the stops between
 Bellinzona and Airolo thanks to the
 diversion of freight and long-distance
 fast trains through the Gotthard base
 tunnel
- Opening of lines S40 and S50 to Varese and Malpensa

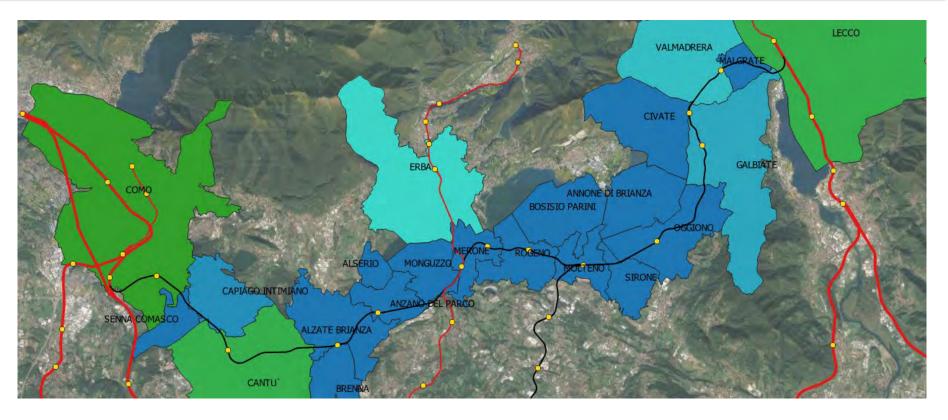
Varese – Mendrisio line

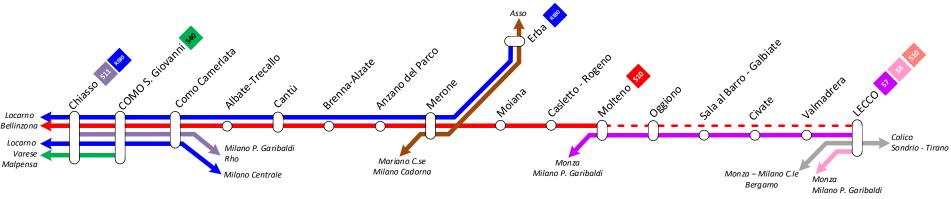


New international rail link:

- Opened in 2018
- 17.5 km 7.5 operating, 3.5 rebuilt and 6.5 built new
- First new cross-border railway between Italy and Switzerland since 1926
- Creates a new, faster and direct link between the Italian provincial capitals of Como and Varese...
- ... as well as a faster connection to Malpensa Airport from Ticino
- For the connection Como-Varese via Mendrisio (Switzerland), a mixed Italian/Swiss fare is applied (+25% compared to the longer but domestic route via Saronno). These fares are too high and decrease the attractiveness of the service

Next step – Como-Lecco line



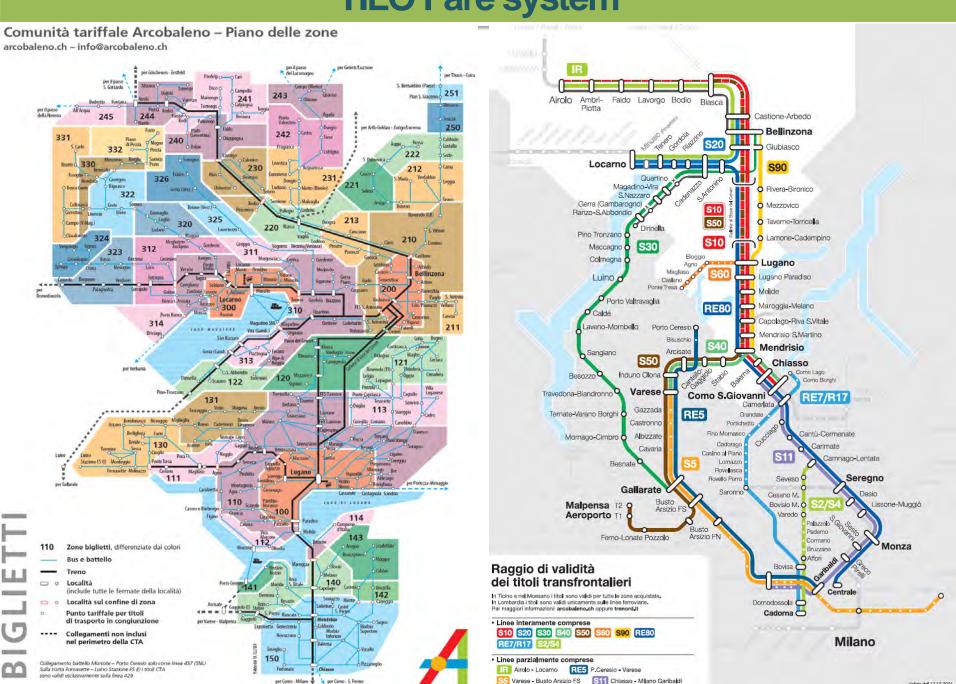


Next step – Como-Lecco line

Possible extension of TILO network:

- The line Como-Lecco actually is single track, not electrified. There is an infrequent local service operated with DMUs from Como to Molteno, where there is the connection to Lecco with line S7 from Milan
- Electrification of the whole line has been approved → in 2026 the line will be completely electrified
- This project will allow new through cross-border services, providing an effective public transport alternative to heavily car-dependant cross-border workers

TILO Fare system

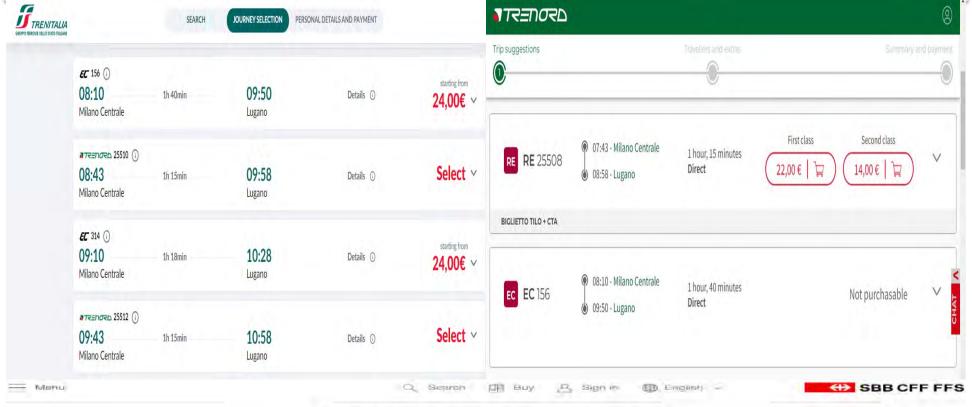


Valido dal 12,12,2021

TILO Fare system

- In Canton Ticino there is the integrated fare system "Arcobaleno", while in Lombardy only Milan suburban area has an integrated system
 - → TILO tickets on the Italian side are only valid on Trenord services and generally only available for destinations on the TILO network
 - → TILO tickets are not sold on Trenitalia.com
- In Italy the long distance trains (Trenitalia-SBB EC) have compulsory seat reservation and different fares from regional TILO/Trenord trains; EC tickets are not sold on Trenord.it
- Cross-border fares are exactly the sum of the Italian and Swiss stretches. For
 Italian passengers, who have lower economic power compared to the Swiss, these
 prices are too high → it is necessary to create more attractive fares, especially in
 order to increase the share of cross-border workers choosing the train

Tickets – where to buy?



Milano Centrale → Lugano

Mon, 06.06.2022. Departure 07:51. Change



Vigezzina & Bernina – meter-gauge wonders

Multi-purpose railways adapting to new scenarios:

- Connect remote mountain villages to regional centres
- Local links for cross-border workers
- Filling gaps for faster intra-Swiss journeys through Italy
- High tourist potential tourist attractions in their own (the Bernina railway is on the World Heritage Sites list)
- Fully integrated on the Swiss side, "stand alone" on the
 Italian side → reducing the international scope

Future perspectives:

- After the opening of the Gotthard base tunnel, part of the intra-Swiss traffic has switched to the new higher speed connections
- → Re-focus on the tourist market (new panoramic trains, tourist packages...)
- Revenues should be used also to improve local/regular public transport functions



Cross border public transport commuting experiences



Sandrina Lohse-Larsen/Søren Bom Greater Copenhagen (Denmark-Sweden)

















Cross border public transport commuting experiences in Greater Copenhagen

Sandrina Lohse Larsen and Soren Kofoed Bom

Capital Region of Denmark Centre for Regional Development

June 11th 2022

Slido #EPF2022

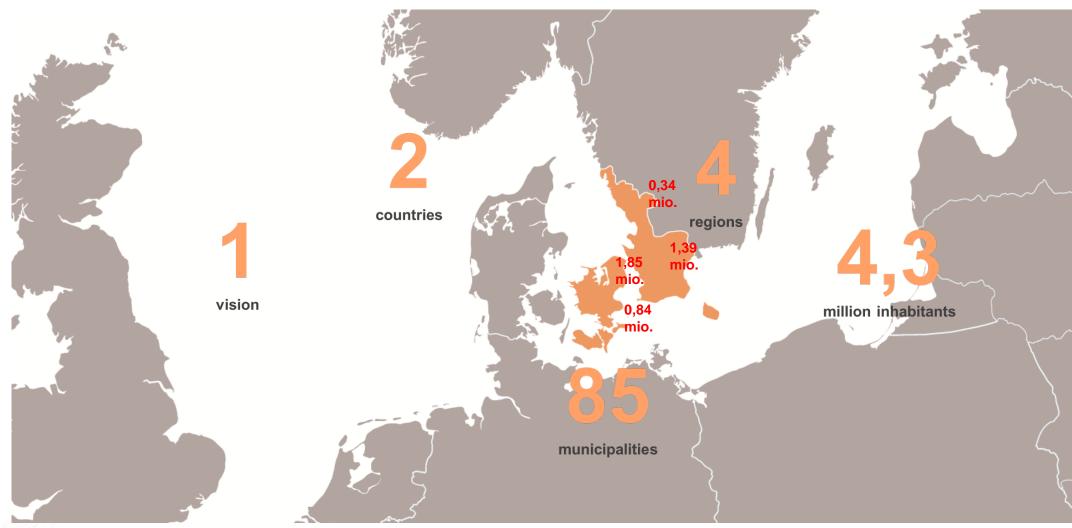
https://www.sli.do/



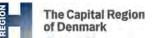


Introduction – Greater Copenhagen













Complexity of public transport in Greater Copenhagen





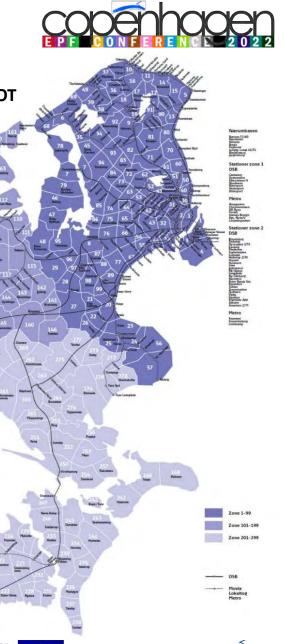


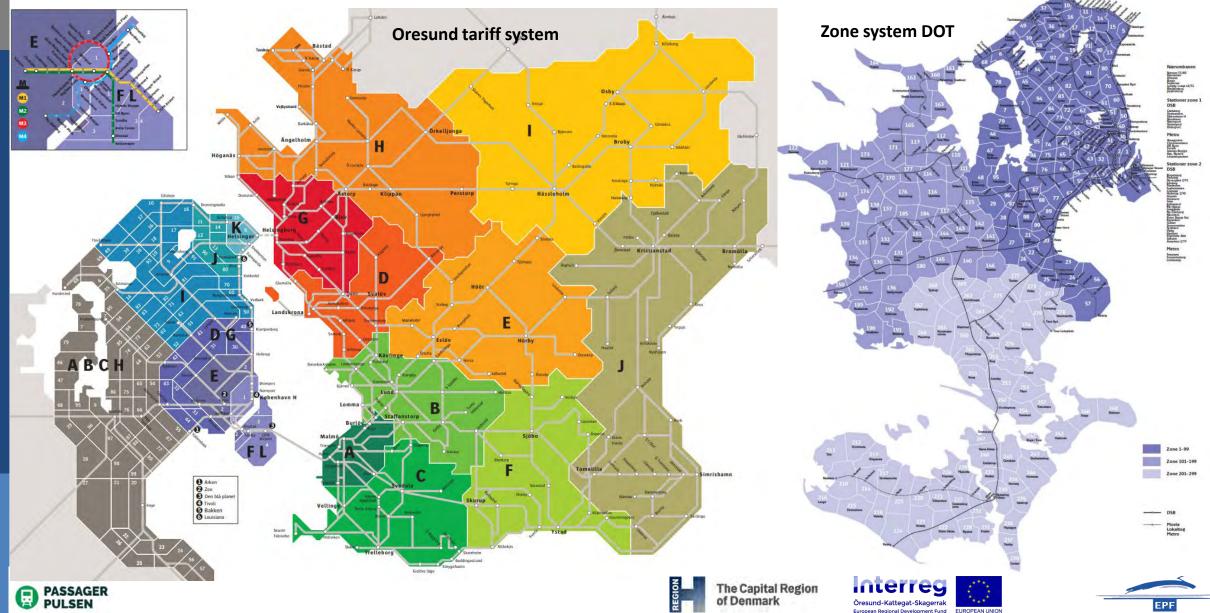


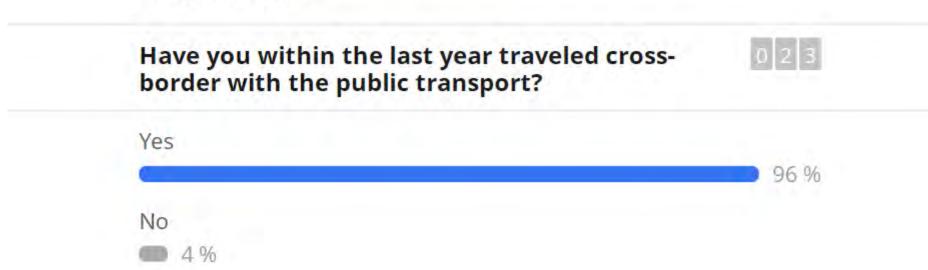




Tariff system in Greater Copenhagen







What has been the purpose of your cross-border journey?



Travel to the workplace or place of education

13 %

Travel in connection with work (eg for a meeting, conference)

59 %

Travel in your free time (eg experiences, visiting friends or family)

69 9

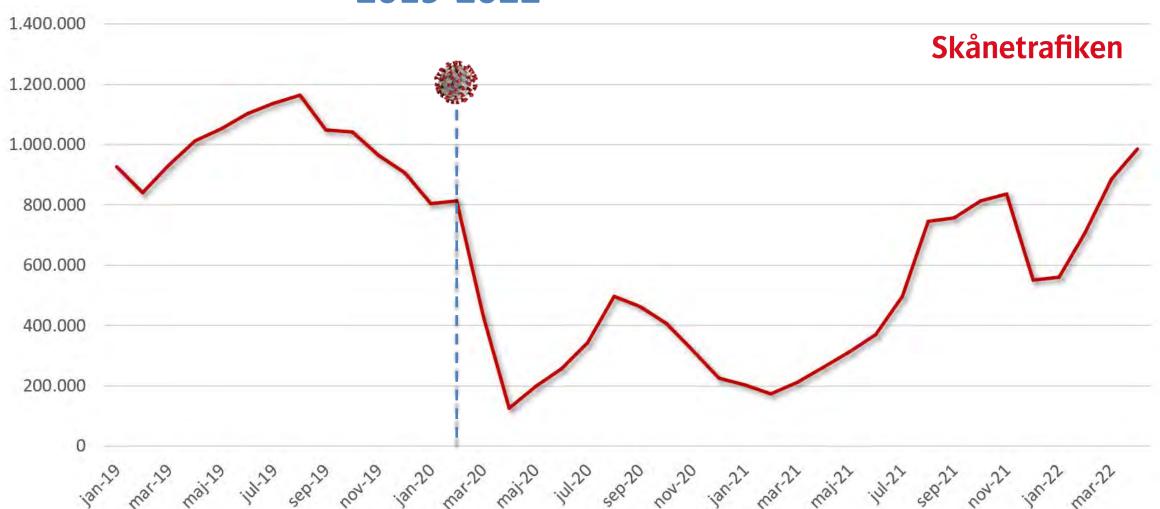
As transport to eg airport, ferry

99

Travelers across Oresund (total)



2019-2022





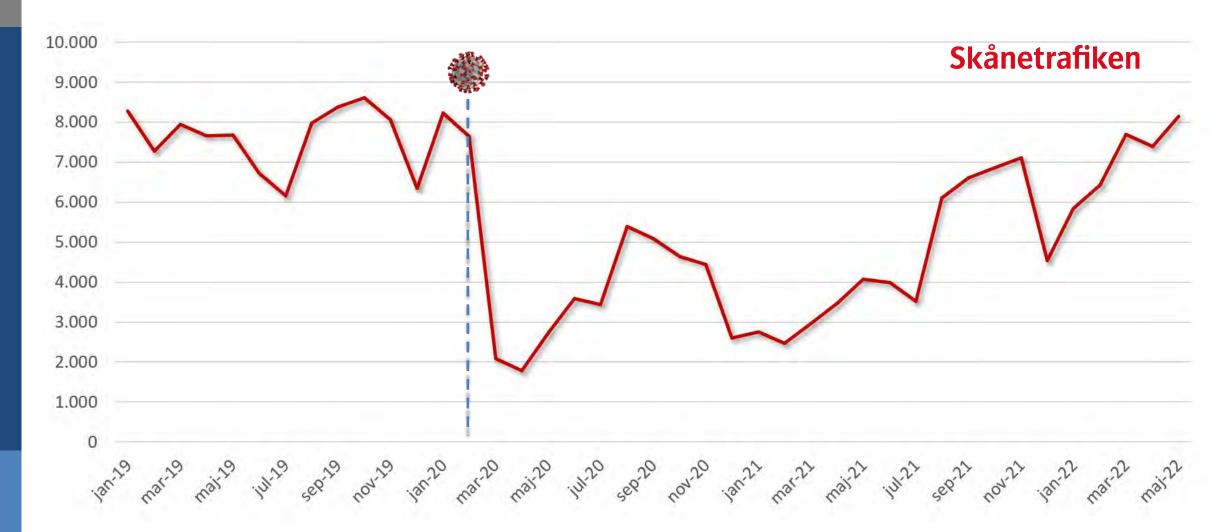






Skånetrafiken Öresund commuter ticket sale 2019-2022







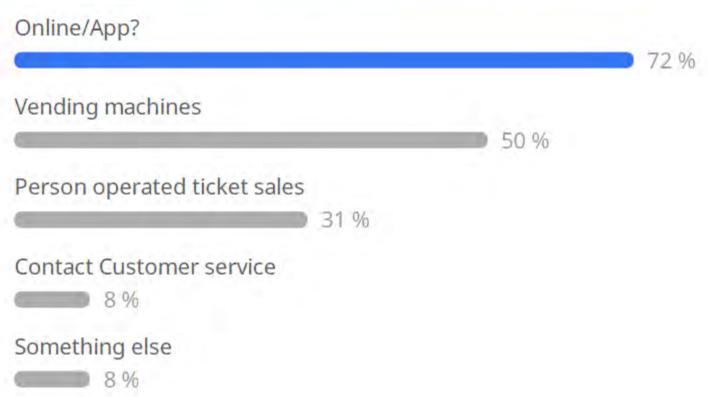






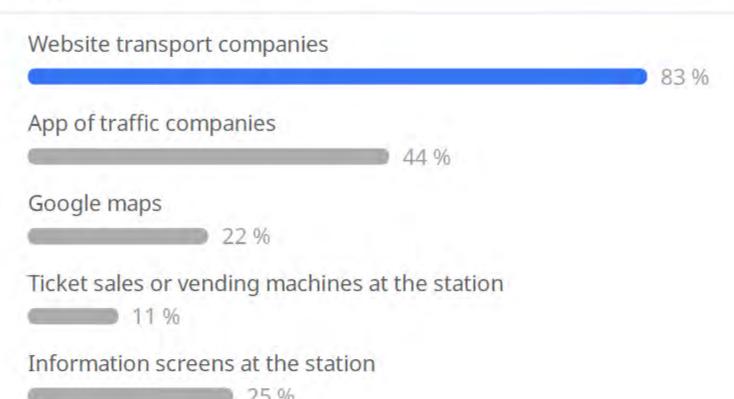
How do you buy or where would you imagine buying your cross-border public transport ticket?





Where do or would you search for information in your cross-border travel? (1/2)







Where do or would you search for information in your cross-border travel? (2/2)



Other places

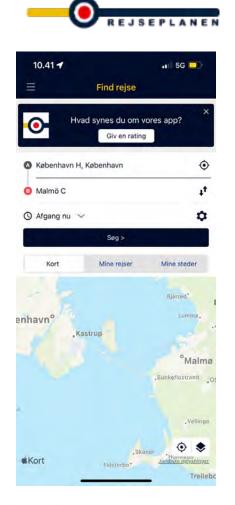
14%

I never look for information before traveling

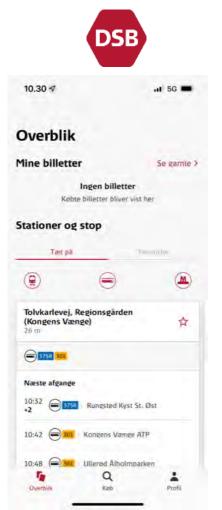
0 %

Apps for travelers in Greater Copenhagen

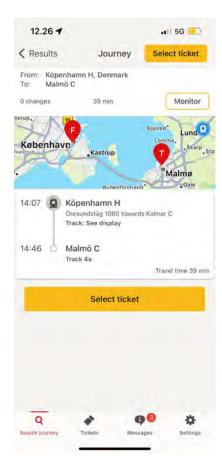








Skånetrafiken









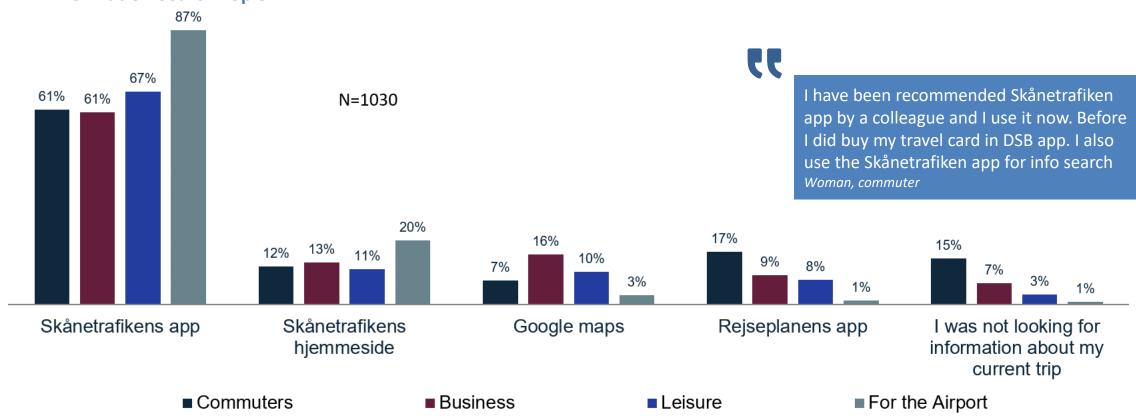


Swedish and Danish commuters are happy about Skånetrafiken app – the Danes use other platforms as well





Where did you search for information about your current journey by public transport between Denmark and Sweden? Information search Top 3









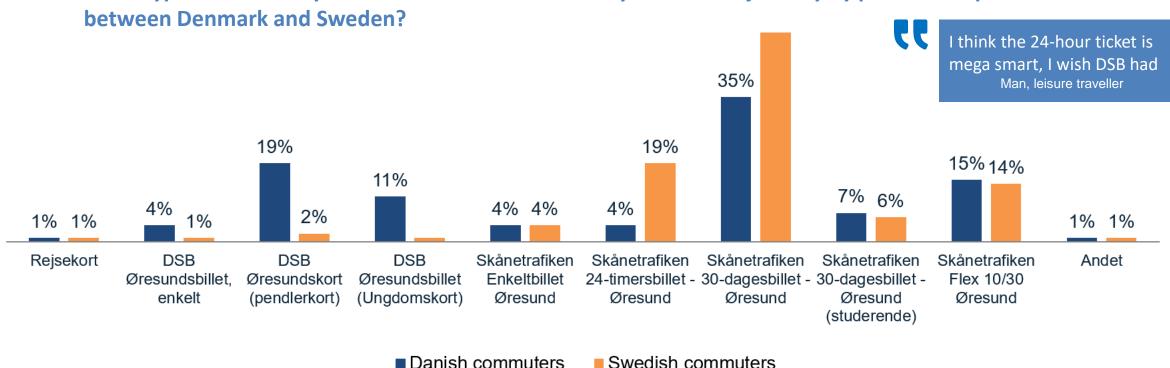


The Swedish commuters are only using Skånetrafik products while the Danish commuters are using a broad range of DSB and Skånetrafik products



EPINION

What type of ticket do you use to cross the border on your current journey by public transport







Swedish commuters

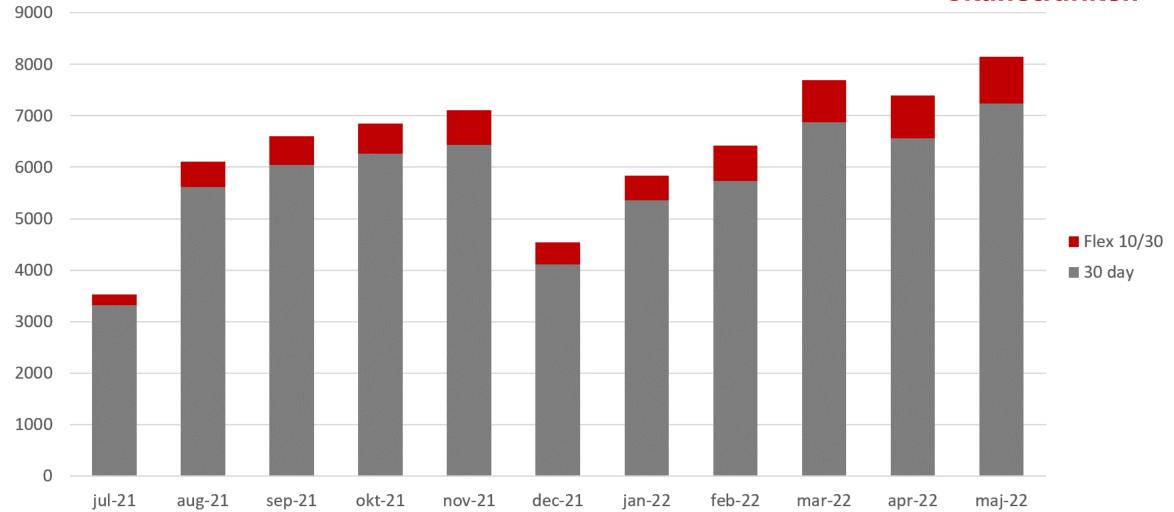




> Skånetrafiken period 30 and Flex 10/30



Skånetrafiken











The Swedish commuters are less satisfied with both "value for money" and on the question: "I get what you pay for on this trip"





Value for money on this trip?

	Average score	
	DK	SE
Commuters	6,1	4,5
Business	6,5	5,6
Leisure	6,5	6,4
Airport		6,3

N=1030, scale: 0 -10

You get what you pay for on this trip?

	Average score	
	DK	SE
Commuters	6,1	4,5
Business	6,5	5,6
Leisure	6,5	6,4
Airport		6,3

N=1030, scale: 0-10

I think it's expensive - it's a short journey and when I think about how long I could travel to other destinations in Sweden for the same ticket price - well then, I think it's expensive to cross the border

Man, commuter









Bjørn's journey to Ystad (Sweden)





Intro

Bjørn lives in Copenhagen and is going to a seaside hotel in Ystad. He is travelling by train to Ystad and is bringing his bike.



Prior to the journey

Bjørn plans his journey via the Rejseplanen app. In the app he sees that the departure from Copenhagen Central Station is delayed by 3 minutes.



During the journey

Bjørn must change train on Hyllie station. While he is travelling the Øresund train, he receives notification of further delays at Hyllie.

Arriving at Hyllie station the information screens informs him that the local railway is affected by delays of 30 min. When the train arrives, he sees that the train only runs with one trainset, which results in a very crowded train.



End of the journey

Due to the many travelers the train has no space for Bjørn's bike, so he will have to wait for the next train.

Due to the delays and other challenges Bjørn unfortunately realises that he will not be able to make it in time for the Spa treatment, he already purchased.

Used data

- Planned updates from Banedanmark/DSB.
- · Real time data from Banedanmark/DSB.
- Planned data from Skånetrafiken.

Challenges

 Information regarding the Swedish local train is only visible via the Swedish app. Therefore, Bjørn doesn't receive important information about delays, busyness and shorter trains.

Missing data

 Real time data regarding delays for the local trains etc. either from Samtrafiken (NAP SVE), Trafikverket or RNE CL.









Hannah's journey home (Malmö) after a concert in Copenhagen (Denmark)

Skånetrafikken

Journey that will not

be monitored: DR



Intro

Hannah lives in Malmö and has been in Copenhagen for a concert in DR's concert hall. Now she's going home to Malmö and uses the Skånetrafiken app to plan her return.



Prior to the journey

Hannah has taken the trip before. She sees that the app has fortunately taken an rerouting of the metro into account. Therefore, she must take a different path than usual and change metro at Christianshavn station.

During the journey

At the metro station the information screens tells Hannah that the metro is not just rerouted but has been cancelled. Instead replacement buses are running. In the bus Hannah receives a notification that the train from Malmö, which must return after a stop at CPH station, has been canceled. To investigate her options Hannah opens the Rejseplanen app. There isn't any information about the train being canceled. She then assumes the train will be returning to Malmö.

End of the journey

Arriving at the CPH station Hannah expects to get on the train to Malmö. However, the information screens shows that the train has been canceled. She has to wait 30 minutes for the next train and arrives quite late at home.

Nonetheless the concert was great!



Used data

- Planned data from Rejseplan via Skånetrafiken.
- · Planned data from Metro.
- Planned updates from DSB/Banedanmark.

Challenges

- Hannah has planned her journey via a Swedish app. Therefore, she doesn't receive information regarding the replacement buses in Denmark.
- · Hannah experiences inconsistences in the information regarding cancellations from respectively the Skånetrafiken-app and the Rejseplanen-app.

Missing data

- · Real time data regarding replacement buses from Metro or Rejseplanen.
- Chat message between the operators regarding the replacement buses.
- Real time data regarding cancellations to Rejseplanen.









Closure remarks



Activities to improve the level of service for Oresund travelers







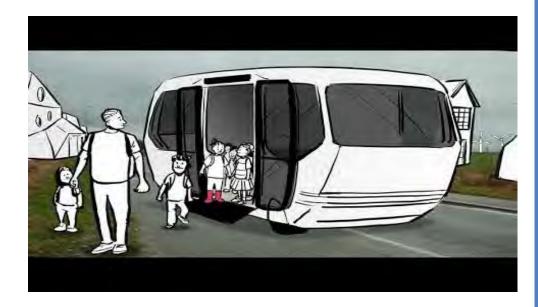




Greater Copenhagen 2050



The future green mobility in Greater Copenhagen



Danish video with English subtitles <u>here</u>







Thank you for your attention!

Soren Kofoed Bom

Senior advisor

Direct: +45 2977 8931

Mail: soeren.bom@regionh.dk

Sandrina Lohse-Larsen

Special advisor

Email: sandrina.lohse-larsen@regionh.dk





Stretch your legs and grab some tea or coffee

We'll meet again at 11.15









Workshop: Cross border public transport commuting experiences



Co-creation roundtables by geographic location to understand best practices, points of improvement and lessons learnt.

Presentations from the working groups: Sharing best ideas/practices.







Which country are you joining us from?









Enjoy!

We'll meet again at 13.20







Keynote speaker



Sophie BuyseDeutsche Bahn









Involving the end users in the development of public transport



Louise CowardTransport Focus

Sandra Lima EPF

Vassilis Agouridas UIC-2

Gitte Kjær-WestermannPassagerpulsen









Involving the end users in the development of public transport



Louise CowardTransport Focus







Louise Coward

Head of Insight, Transport Focus



11 June 2022

Involving the end users in the development of public transport





Why and how to involve end users



- Finding out what users think is essential avoids costly mistakes and builds buy-in
- We can't assume that we know what they think
- We are not the same we know too much!

 A good way of involving users is to run communities – where you can show them ideas, get them to be creative, refine ideas, test communications and much more

Some examples





A community over 4 years to design a completely new railway









A community over 2 years to design new rolling stock









Three communities over 6-9 month to understand how COVID affected their travel and behaviour















What have we learned?



- Really important to specify who you want
- Make sure you check that everyone is properly recruited
- Don't under-estimate the amount of time and ideas that is needed
- Be creative mix up the activities
- You will need to refresh your community over time some lose enthusiasm, some know too much after a while and some leave for different reasons
- Involve your stakeholders







Louise Coward

Head of Insight, Transport Focus



Thank you!







Involving the end users in the development of public transport



Sandra Lima EPF









UMCASE: Creating mobility with people, for people

COOETHOCEN

Involving the end-users in the development of public transport

11th June 2022

UMCASE: Creating mobility with people, for people

Sandra Lima, European Passengers' Federation



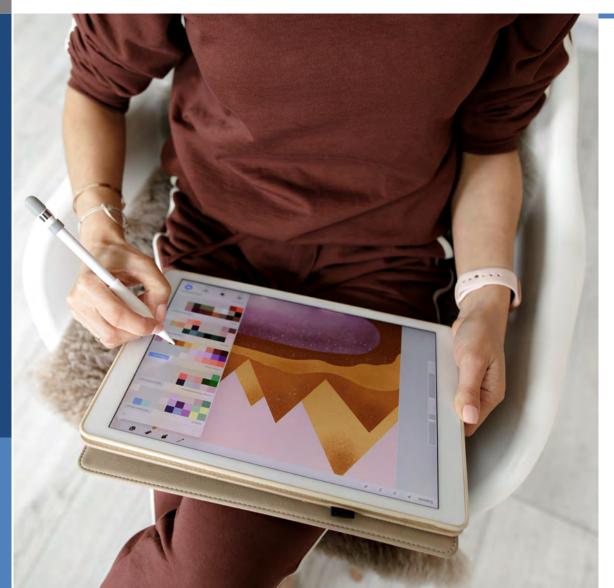


>

UMCASE: Creating mobility with people, for people

Involving the end-users in the development of public transport





Problem:

Digitalisation: user involvement is mostly developed in the context of testing digital applications and innovative mobility solutions.



Exclusion















Involving the end-users in the development of public transport





Aim: Shift the attention to these groups!





How?

Provide cities with an interactive method to identify user needs and develop tailored public transport systems and digital solutions for the most vulnerable users. Creating the means to improve transport solutions by tailoring them to individual needs.







Involving the end-users in the development of public transport



UMCASE Method

- Design thinking approach
- Bringing together key stakeholders
 - Cities
 - Citizens (or representatives)
 - Transport providers
 - Businesses
 - ..
- Intensive ideation cooperation







Involving the end-users in the development of public transport





Vitória-Gasteiz

Eindhoven







Involving the end-users in the development of public transport





Vitória – the case of older people

- People over the age of 60
- Very heterogeneous group, with the common experience of ageing
- Mobility barriers and difficulties in accessing digital (mobility) services



Eindhoven – the case of low income

- People with low incomes who live in a particular area of social housing
- Exclusion in this group can be very intersectional with other factors
- Mobility barriers and difficulties in affording services





>

UMCASE: Creating mobility with people, for people

Involving the end-users in the development of public transport





Vitória – the case of older people

- Women seem to be more involved in the activities (traditional role of communication?)
- Value their time above financial compensation: want to create a real change with their actions
- Are open to learn and often find joy in the act of learning itself
- Need certainty (appointments need to be scheduled ahead) and respect (clear open communication)
- Can be more technology-savvy than expected!







Involving the end-users in the development of public transport





Eindhoven – the case of low income

- The changes in the house structure mean that this group is extremely motivated to get involved in anything that will affect their lives
- Value their time above financial compensation: often people who are in a precarious situation have "too much going on", we need to present them concrete value for their time and be flexible to conduct the workshop on hours that fit them
- Language barrier to be considered
- Citizen involvement "burnout": with a project involving different phases and city departments it is likely that people will be asked (too) frequently to participate in workshops and their interest might decrease. A balance should be found by cross-sector collaboration and by building good alliances with citizens







Involving the end-users in the development of public transport









Ideation workshop



Design exploration



Mock-up



Mock-up appraisal





>

UMCASE: Creating mobility with people, for people

Involving the end-users in the development of public transport





Outcomes (from Dec 2022)

- Methodology and implementation guide for cities, citizens and other stakeholders to apply the method on their own or with the support of an UMCASE partner
- A portal for cities and an execution tutorial

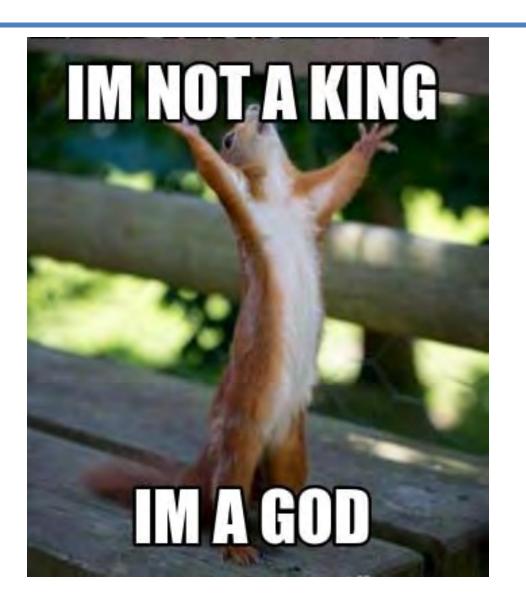






Involving the end-users in the development of public transport











Involving the end-users in the development of public transport











Centro de Estudios Ambientales

CEA

Ingurugiro Gaietarako Ikastegia

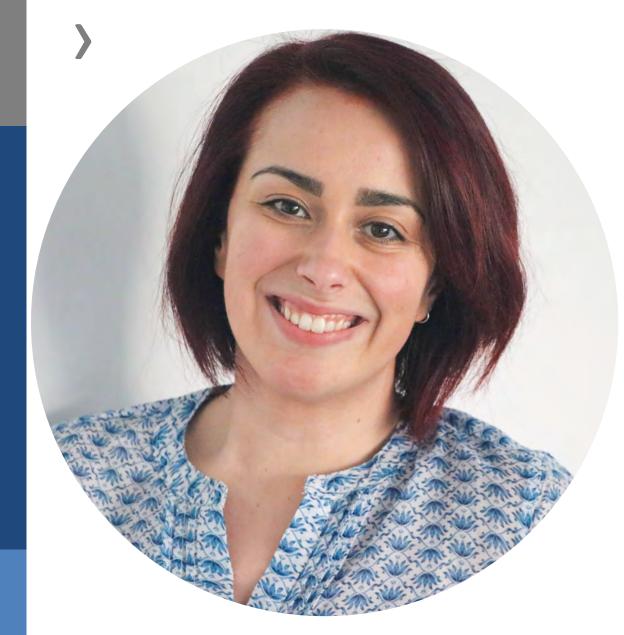














Contact details

Sandra Lima

European Passengers' Federation

sandra.lima@epf.eu

www.epf.eu







Involving the end users in the development of public transport



Vassilis Agouridas UIC-2







Dr Vassilis Agouridas





11 June 2022

Driving the Sustainable & Responsible Transition of Urban Mobility to the Third (Vertical) Dimension



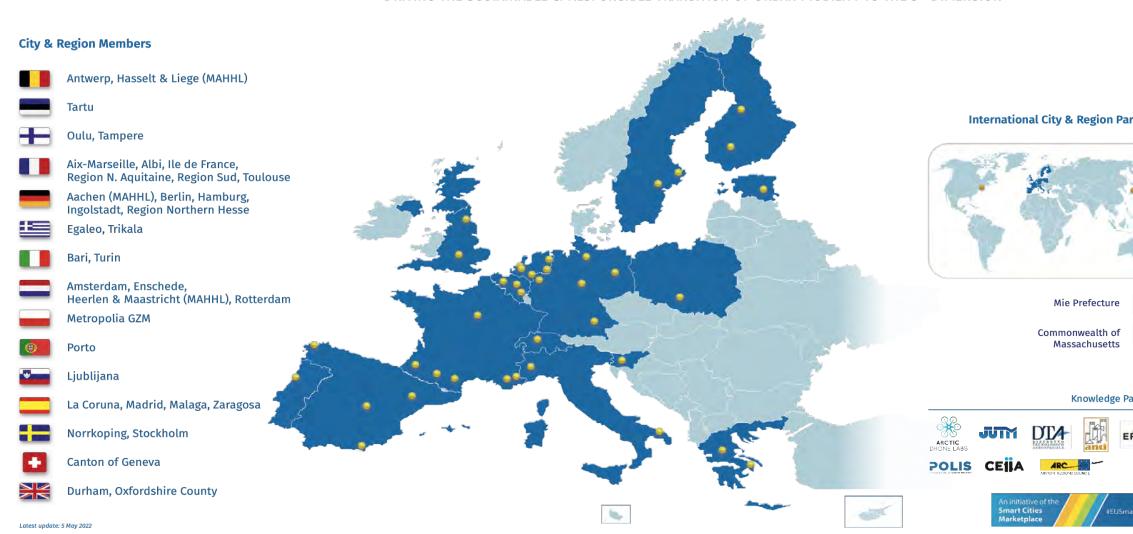




Urban Air Mobility Initiative Cities Community

The voice of cities and regions in urban air mobility

DRIVING THE SUSTAINABLE & RESPONSIBLE TRANSITION OF URBAN MOBILITY TO THE 3RD DIMENSION











Mobility solutions in smart cities



Motto of UAM initiative:

Smart mobility in smart cities:

WALK.

RIDE.

DRIVE.

FLY.



Typical

multimodal

mobility solutions

in smart

cities/regions

do not consider

air mobility







A definition of Urban Air Mobility (UAM)



Urban? Suburban? Regional? Advanced?....

'Urban' is simply used as a semantic to indicate...



Very-low altitude airborne traffic*, above populated areas, at scale, that is sustainably integrated with surface mobility systems

* Traffic manifested by various types of suitable airborne vehicles







Scope of the UAM Initiative





City-centric & Citizen needs-driven

Sustainable Urban Mobility Policy & Demonstrators

focused on UAM by addressing:

- 1. UAM interfaces with *public transport**
- 2. Mobility as a Service
- 3. Ground infrastructure for UAM
- **4. ATM / UTM concepts** for UAM in accordance with the U-Space framework

* Or other interfaces: e.g. logistics platform, emergency services hubs, etc.







Towards Integrated Sustainable Urban Mobility 1/2





The imperative for air and ground traffic integration





Towards Integrated Sustainable Urban Mobility 2/2



Milestone: Measure implementation Decision to prepare What are our resources? What have we learned? Review Set up How are we doing? What is our planning context? and working learn Monitor. Determine lessons adapt and communicate framework How can we manage well? What are our main problems Manage Analyse mobility and opportunities? SUSTAINABLE Milestone: Sustainable Urban URBAN MOBILITY Mobility Plan adopted Milestone: Analysis of problems and PLANNING **Build and jointly** Prepare for adoption opportunities concluded and financing assess scenarios Are we ready to go? What are our options for the future? Develop vision and strategy Agree actions responsibilities Set targets stakeholder measure What will it take and packages and indicators What kind of city do we want? who will do what? stakeholders How will we determine success?

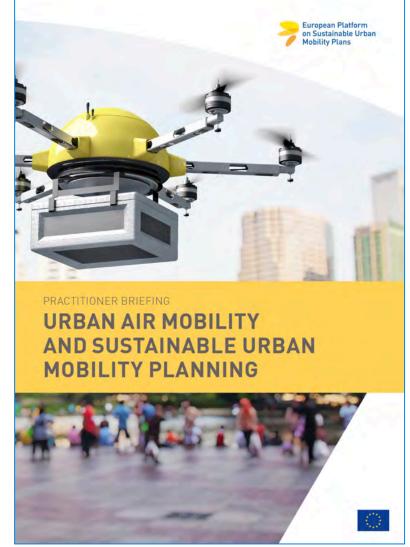






The SUMP-UAM Practitioner Briefing

https://www.eltis.org/in-brief/news/new-sump-practitioner-briefing-urban-air-mobility









Urban air traffic sets . . .



- ✓ Airspace digitalisation
- ✓ New infrastructure (aviation + mobility)
- ✓ New interfaces (aviation + mobility)
- ✓ New business / services
- ✓ New mindset for policy and regulatory approaches (e.g. embracing innovation)



New economic spaces above cities

New perspectives for mobility

... a new 'status quo'







New perspectives for industry

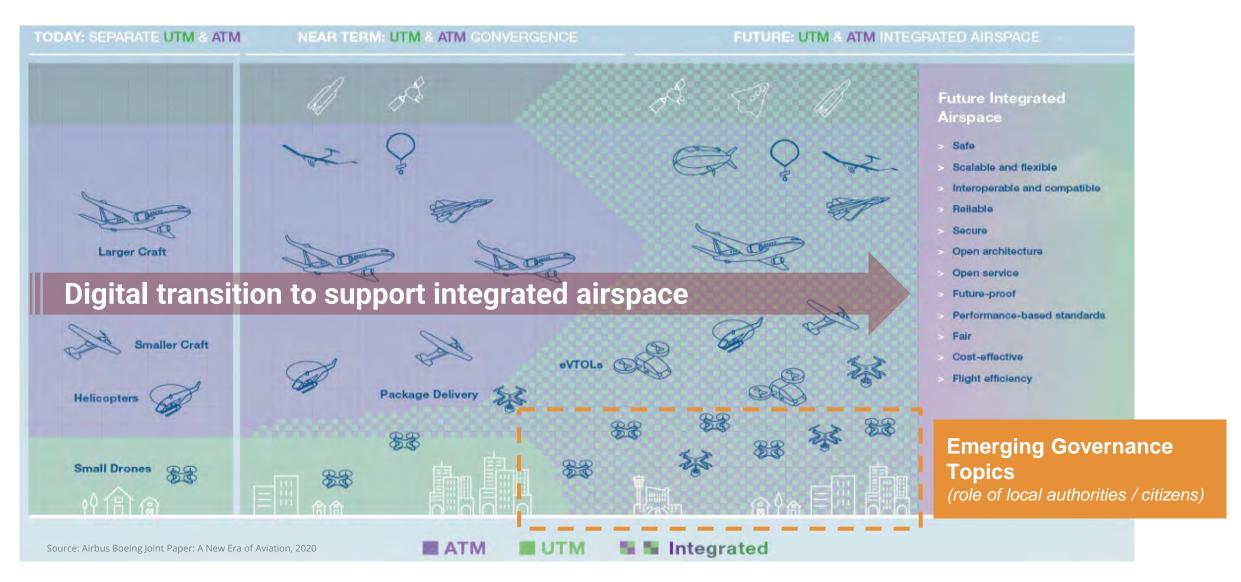






Towards integrated airspace







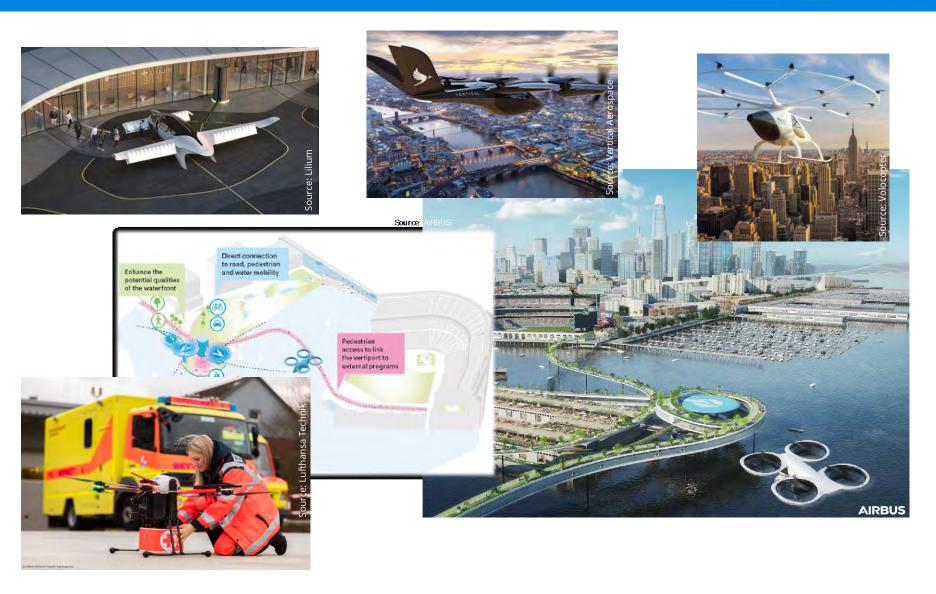




UAM offers cities new opportunities...



- ✓ But also new tasks and responsibilities for them
- ✓ At the same time, cities, as a layer of government closest to citizens, are an essential player in having an influential / deciding role in the governance of the urban airspace and the U-Space









WALK.RIDE.DRIVE.FLY

Multilevel Governance of the Urban Sky





www.amsterdamdroneweek.com/manifesto



Manifesto on the Multilevel Governance of the Urban Sky by the UAM Initiative Cities Community - UIC2

of the EU's Smart Cities Marketplace formerly known as FIP-SCC Urban Air Mobility (UAM) Initiative- is thankful to the European Commission for supporting it through its smart cities marketplace platform since October 2017.

The members of the UIC² recognise the importance for harmonised and universal U-Space regulation at EU level. We acknowledge the need for approval of urban flight operations at national level, in Moreover, we recognise the need for national and regional competent civil aviation authorities to lead the legal implementation and approval of urban flight operations in accordance with the principles of subsidiarity and proportionality.

The members of the UIC2 also recognise and request that the role of the cities and regions as one of the competent authorities in the governance of the urban airspace, is explicitly acknowledged and referenced in the prospective U-Space legislative clauses of Member States. This is an imperative in the context of multilevel governance of U-Space and responsive decentralised policy

In specific, the LUC² members request that

- The UAM Initiative Cities Community (UIC²) 1. Cities/Regions have a deciding role for allowing the operation of UAM services of public interest (e.g. future public transport, postal-deliveries, emergency services) in alignment with the needs and preferences of their citizens.
 - Cities/Regions have a deciding role in establishing to what extent UAM/U-Space operations can be conducted in their territories.
 - 3. Cities/Regions have a deciding role where UAM/U-Space flight operations are permitted within their territories (e.g. geo-fencing, day- / night-time restrictions, noise and visua
 - Cities/Regions have a deciding role where take-off and landing sites are to be built
 - 5. Prosecution of infringements of the public use of the urban airspace over a city/regions remains a local task.

The members of the UIC2 trust that the above requests will be treated with consideration and attention in: a) the forthcoming European U-Space Regulatory Framework by acknowledging the imperative for multilevel governance of U-Space; and b) the legislative processes of U-Space Regulation by Member States



The UAM initiative of the Smart Cities Marketplace has enabled cities and regions to become UAM role models and to discuss their opinions and concerns directly with European and State Member authorities and policy making bodies, including DG-Move. EASA, Eurocontrol and SESAR JU. For example, the German UIC3 members are building a partnership, since 2019, that is supported by the RMVI (Federal Ministry of Transport and Digital Infrastructure) to focus on open exchange and collaboration as well as standard-setting for more future UAM cities and regions.

> The efforts and engagement of UIC^a alongside with the European Commission's support have resulted in fruitful interactions and concrete actions towards sustainable and integrated urban mobility, some of which are highlighted below:

- . The invitation to UICI to become member of U-Space Network of Demonstrators in October 2018. This has helped us to be in contact and discuss with ANSPs (Air Navigation Service Providers), industry actors and national authorities regularly;
- The inviation to UIC¹ Task Forces (representatives, including Mayors/ Vice-Mayors) to meet with the former Commissioner of Transport (Violeta Bulc, DG-Move) in May 2019. This has allowed us to share the progress of the community's work as well as the specific challenges faced by the local authorities in sustainably nurturing and safely advancing the UAM ecosystem.
- The invitation to UIC¹ to participate in U-Space regulation drafting workshops at EASA headquarters in May 2019. This allowed UIC² to further emphasise the

moortance of the role of cities and regions in the governance of urban

- The preparation of an EIB (European Investment Bank) Advisory Hub assignment for UAM since 2019, and its development of their business models and carry out an early market assessment of the UAM sector.
- dedicated calls for funding in the context of sustainable urban mobility under the H2020 framework (2019-2020); namely, the UAM Research and provation Action (RIA, MG-3.6) and the HAM Coordination and Support Action ICSA, LG-1.12) calls. These enabled some UIC¹ members and their industrial and arademic partners to participate in consortia and be awarded respected funding for their projects starting in Q1
 - The invitation and assignment to the LISC* in December 2019, of the task to develop the Practioners Briefing on UAM in the context of the Sustainable Urban Mobility Plan process (SUMP-UAM). The ongoing city/region-led work sheds light, based first-hand experience from the UIC3, into the challenges, opportunities, lessons learnt and initial recommendations to effectively integrate UAM aspects in the SUMP processes of cities and regions

UICI highly acknowledges and appreciates the European Commission's support and dedication towards this community that has led to its recognition as the leading city/ region-driven community on UAM.



European Cities and Regions already supporting ...

THE CITY OF TAMPERE









as of 28 Feb 202































MADRID

























Ayuntamiento de A Coruña





Commonwealth of Massachusetts (USA)



MassDOT, Aere nan tics

Organisations / Associations already supporting



LUXMOBILITY

























Article 18(f) of the Regulatory Framework for U-Sp Articles Marketplace

Extract from the Commission Implementing Regulation (EU) 2021/664 of 22 April 2021 on a regulatory framework for the U-space.

https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32021R0664

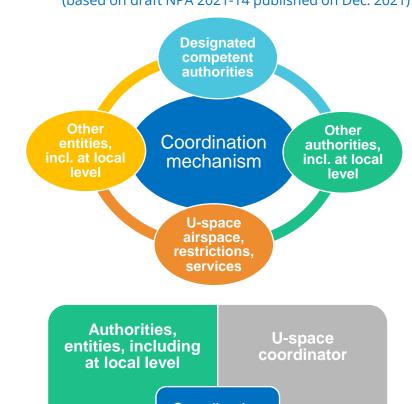
Article 18

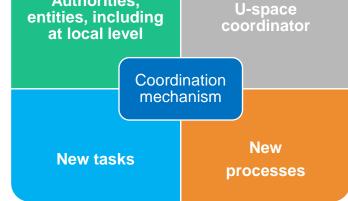
Tasks of the competent authorities

- establish, maintain and make available a registration system for certified U-space service providers and single common The designated competent authorities shall:
- determine what traffic data, whether live or recorded, U-space service providers, single common information service providers and air traffic service providers are to make available to authorised natural and legal persons, including the required frequency
- determine the level of access to the information for different users of the common information, and ensure it is made available in

- ensure that data exchanges between air traffic service providers and U-space service providers are made in accordance with define the manner for natural and legal persons to apply for a U-space service provider or single common information service
- establish a mechanism to coordinate with other authorities and entities, including at local level, the designation of U-space airspace, the establishment of airspace restrictions for UAS within that U-space airspace and the determination of the U-space
- establish a certification and continuous risk-based oversight programme, including the monitoring of the operational and
- financial performance, commensurate with the risk associated with the services being provided by the U-space service providers require the providers of common information and U-space service providers to make available all necessary information to and single common information service providers under their oversight responsibility;
 - we that the provision of U-space services contribute to safe operations of aircraft;

A novel approach to build up the coordination mechanism (based on draft NPA 2021-14 published on Dec. 2021)











Driving a sustainable & responsible transition

The UIC2 Task Forces



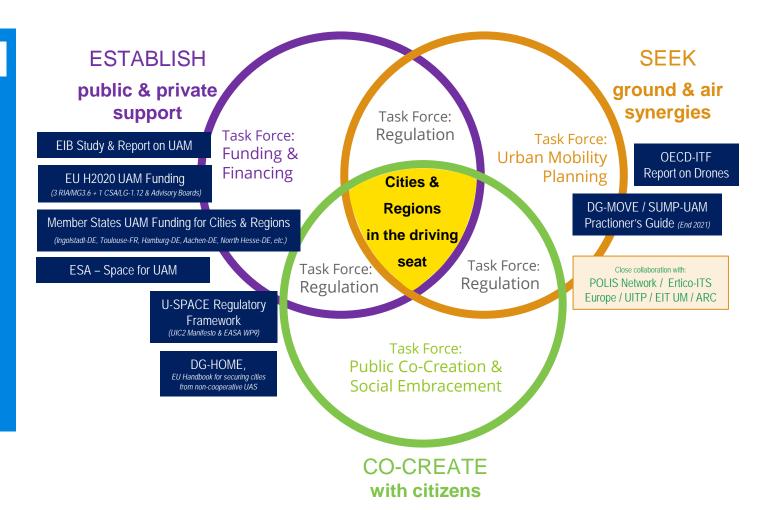
Towards a sustainable & responsible transition to UAM

A three-fold approach is required

Reminder of Prerequisites

- ✓ integrated

 sustainable urban
 mobility solutions
- ✓ <u>demonstrable</u> benefits to citizens
- ✓ socially & environmentally acceptable solutions



UIC2 serves as a city-centric platform to:

- ✓ Ensure a holistic approach to urban mobility
- ✓ Proactively engage with citizens
- ✓ Co-create with public and private actors (incl. citizens)







Towards a worldwide AAM/UAM community of cities and regions



World Economic Forum AAM/UAM Cities and Regions Coalition

with support by the UIC2 (Founding Member and the European Pillar)

The World Economic Forum's Advanced & Urban Air Mobility (AAM/UAM) Cities and Regions Coalition was announced on 29th March 2022 at Amsterdam Drone Week.

The coalition creates a forum for **extending** the conversations that have taken place within UIC2 in Europe to a worldwide level.

Its goals are to support policy makers in **responsibly** integrating new aerial platforms into urban and regional transportation networks.

Cities and regions **set the agenda** for the groups work and will be supported by industry as needed.

The Forum announced an initial group of high ambition city/region partners as founding members at the March launch.

These cities and regions, and others to join in the future, have the opportunity to be leaders in the area of AAM/UAM and will help shape its implementation as a **service** by:

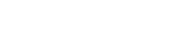
- Undertaking policy development exercises.
- Implementing pilot programs to assess the real-world impacts of policies.
- Sharing their findings with other cities and regions to help identify best practices...

29th March 2022, WEF Press Release

https://www.weforum.org/press/2022/03/local-leaders-join-new-coalition-to-advance-urban-air-mobility-around-the-world/





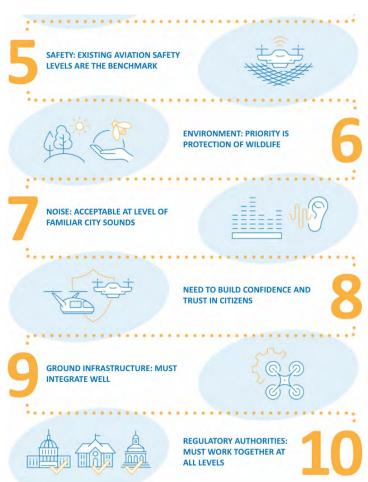




Key findings of the EASA UAM Social Acceptance Study







- UAM use cases depend heavily on social acceptance topics.
- technical topics, and technological advancements although they are central to UAM progress (e.g. noise), are not the only challenges!
- Need to consider the impact of UAM with the wider lens of 'sustainability' [CSR / ESG / SDGs]

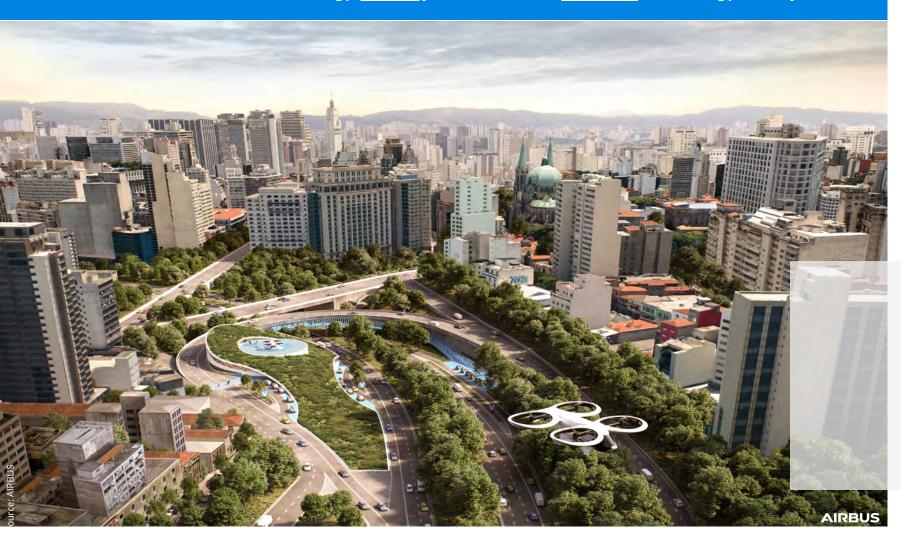
Source: EASA, 2021





It is all about a **Social** Business Ecosystem

i.e. it's not about what technology can do for us but what we want technology to do for us!



Thank you!



Dr Vassilis AGOURIDAS

Leader of the UIC2

Head of Public Co-Creation & Ecosystem Outreach AIRBUS, Urban Mobility

vassilis.agouridas@airbus.com







Involving the end users in the development of public transport



Gitte Kjær-WestermannPassagerpulsen







EPF Conference Copenhagen 11. june 21

Passenger involvement



Outline

- 1. Passager involvement in Denmark
- 2. First Year Learnings and Challenges
- 3. Some experiences / cases: What works? / What works less well?
- 4. Panel debat: what can we learn from each other?

Changed Tasks of Passagerpulsen

Voice of the passengers

2014: Established

Former tasks

2020: New tasks. Passenger Councils and Conferences

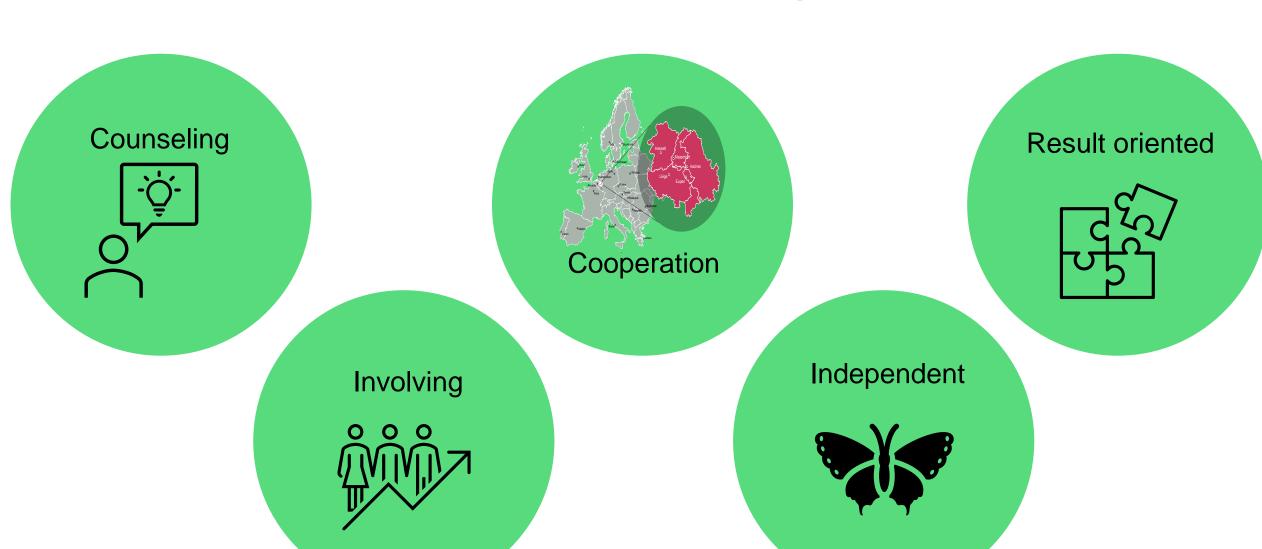
Purpose of the Passenger Councils



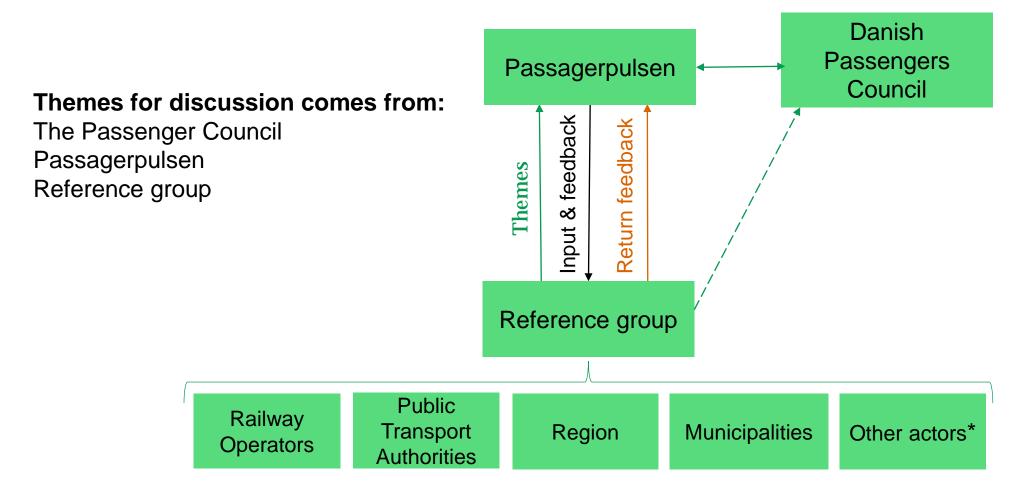


- Enhancing the voice of the passengers in the development of regional public transportation in Denmark.
- Representation across special interests and reduced mobility, gender, age, handicap, frequency in use of public transportation, etc.
- Contributing to empower mobility and cooperation across means of transportation, Public Transport Authorities and municipalities.

Principles of the Passenger Councils



Concept and Organisation



^{*} For instance Rejsekort og Rejseplanen A/S or Den Fælles Trafikinformationsenhed.

Themes and Contributions



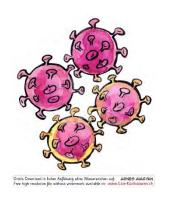




Forbrugerrådet Tænk I **Passagerpulsen** Slide 145



Successes



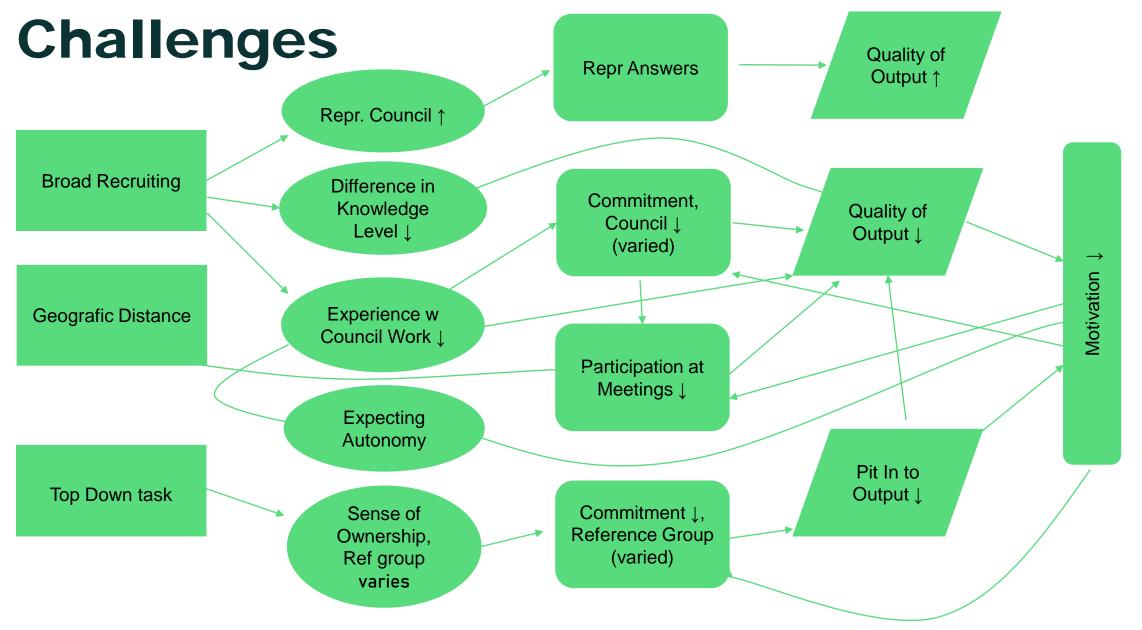








Forbrugerrådet Tænk I Slide 147



Forbrugerrådet Tænk I Slide 148

Some Experiences: What Works - What Does'nt?

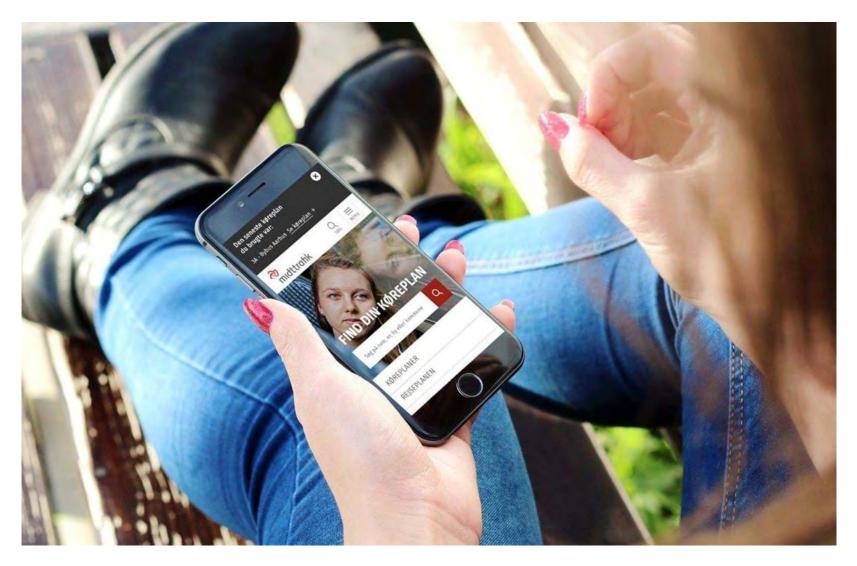
What Works							
1)	Recruiting broadly to secure democratic representation, but with 'motivation' as a key factor.						
2)	Clarifying expectations						
3)	Nursing: Email and sms reminders, phone reminders and connection, as they are volunteers						
4)	Nudging; e.g. team building, excursions, nice surroundings and meals						
5)	Fewer meetings / meeting F2F						
6)	Closer facilitation of work groups						
7)	Openness, curiosity and commitment to pit in, in council as well as reference group						
8)	Concrete input / questions for the council –						

defines output

What Works Less Well

- Recruiting broadly to secure democratic representation, clean cut, without 'motivation' as a key factor
- 2) Implicit expectations
- 3) Trusting own commitment of members,
- 4) Simple meetings 3 hours in the evening at the office of Region or online
- 5) More meetings / meeting online
- 6) Autonomous work groups
- 7) Lack of participation, engagement and ownership in council or reference group, seeing input as useless, do not pit in.
- 8) When input is primarily information sharing, and there is no request for output

Case 1: What Works



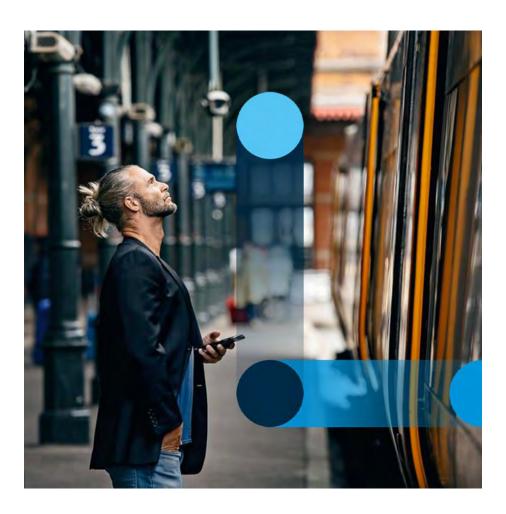
Concrete topics / real need for input to improvement = useful output

Case 2: What Works



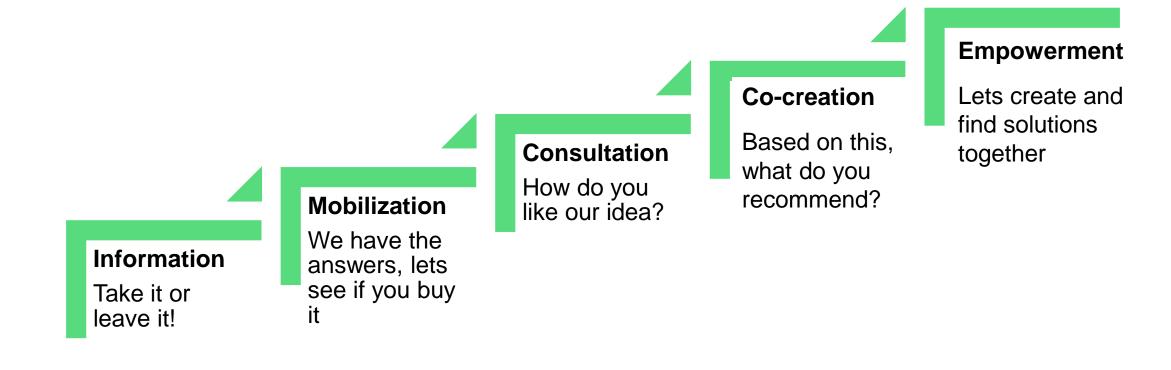
Direct
dialog and
relation
building
with
decision
makers =
useful
output

Case 3: What Works Less Well



Only information = Less useful Output

The Participation Stairs



Forbrugerrådet Tænk I Slide 153



Stretch your legs and grab some tea or coffee

We'll meet again at 15.30







Panel discussion from afternoon session



Involving the end users in the development of public transport

What are the benefits of involving the end users, and how is it done best?

Louise CowardTransport Focus

Sandra Lima EPF

Vassilis Agouridas UIC-2

Gitte Kjær-Westermann
Passagerpulsen







Closing speaker



Josef Schneider
EPF







EPF conference 2022, Copenhagen



- ➤ More than 70 participants
- **▶**15 countries

- ➤ Unique place for networking between members of EPF's member organizations
- ➤ Exchange of information between EPF and the "European world" of Public Transport







Personalmangel bei Lufthansa

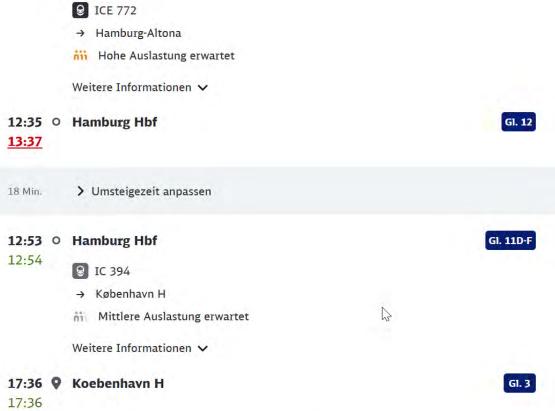
Hunderte Flüge im Juli gestrichen

Die Corona-Pandemie hat zu Personalmangel in der Luftfahrtbranche geführt. Nun steigt die Sorge vor Chaos in der Hauptreisezeit. Die Lufthansa und ihre Töchter Eurowings und Swiss streichen im Juli Hunderte Flüge.











Opel Corsa

1989 2023





Management Board // EUROPEAN PASSENGERS' FEDERATION // www.epf.eu



DSB IC3

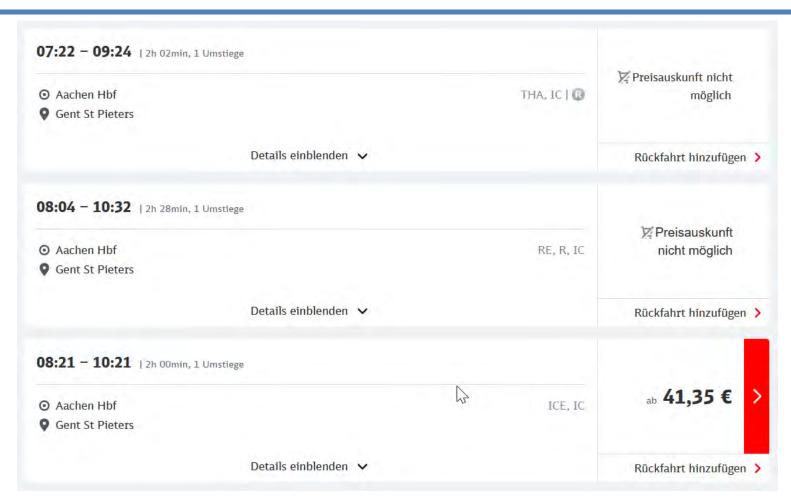
1989

2023



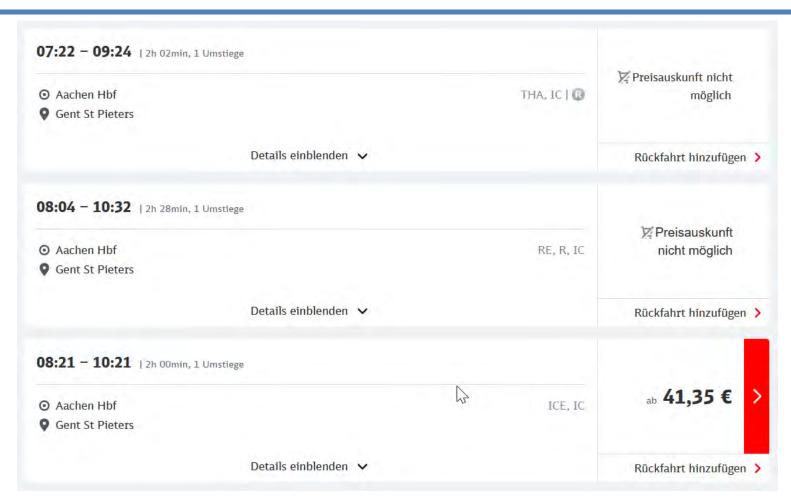






Management Board // EUROPEAN PASSENGERS' FEDERATION // www.epf.eu





Management Board // EUROPEAN PASSENGERS' FEDERATION // www.epf.eu

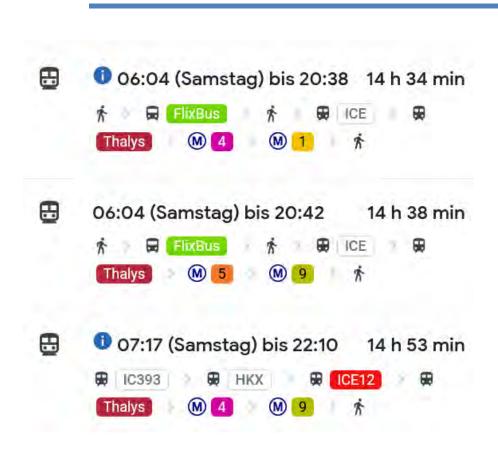
Multi modal mobility

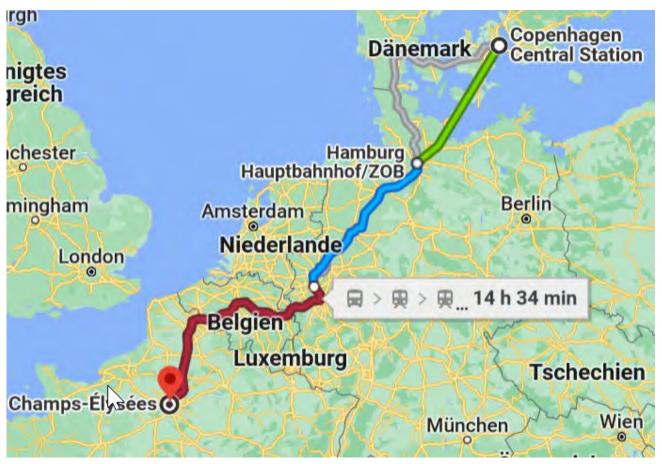


STRECKE TEAM	S AL	JSGABE 2021	KULTOUR SPONSOREN UCI					CLUB DE OL E
ETAPPE 1	01/07	13.2 KM	COPENHAGUE > COPENHAGUE		ETAPPE 12	14/07	165.5 KM	BRIANÇON > ALPE D'HUEZ
ETAPPE 2	02/07	202.5 KM	ROSKILDE > NYBORG		ETAPPE 13	15/07	193 KM	LE BOURG D'OISANS > SAINT-ÉTIENNE
ETAPPE 3	03/07	182 KM	VEJLE > SØNDERBORG		ETAPPE 14	16/07	192.5 KM	SAINT-ÉTIENNE > MENDE
ETAPPE 4	05/07	171.5 KM	DUNKERQUE > CALAIS		ETAPPE 15	17/07	202.5 KM	RODEZ > CARCASSONNE
ETAPPE 5	06/07	154 KM	LILLE MÉTROPOLE > ARENBERG PORTE DU HAINAUT		RUHE	18/07		CARCASSONNE
ETAPPE 6	07/07	220 KM	BINCHE > LONGWY		ETAPPE 16	19/07	178.5 KM	CARCASSONNE > FOIX
ETAPPE 7	08/07	176.5 KM	TOMBLAINE > LA SUPER PLANCHE DES BELLES FILLES		ETAPPE 17	20/07	130 KM	SAINT-GAUDENS > PEYRAGUDES
ETAPPE 8	09/07	186.5 KM	DOLE > LAUSANNE	W.	ETAPPE 18	21/07	143.5 KM	LOURDES > HAUTACAM
ETAPPE 9	10/07	193 KM	AIGLE > CHÂTEL LES PORTES DU SOLEIL	M2,	ETAPPE 19	22/07	188.5 KM	CASTELNAU-MAGNOAC > CAHORS
RUHE	11/07		MORZINE LES PORTES DU SOLEIL		ETAPPE 20	23/07	40.7 KM	LACAPELLE-MARIVAL > ROCAMADOUR
ETAPPE 10	12/07	148.5 KM	MORZINE LES PORTES DU SOLEIL > MEGÈVE		ETAPPE 21	24/07	116 KM	PARIS LA DÉFENSE ARENA > PARIS CHAMPS-ÉLYSÉES
ETAPPE 11	13/07	152 KM	ALBERTVILLE > COL DU GRANON SERRE CHEVALIER					

Multi modal mobility



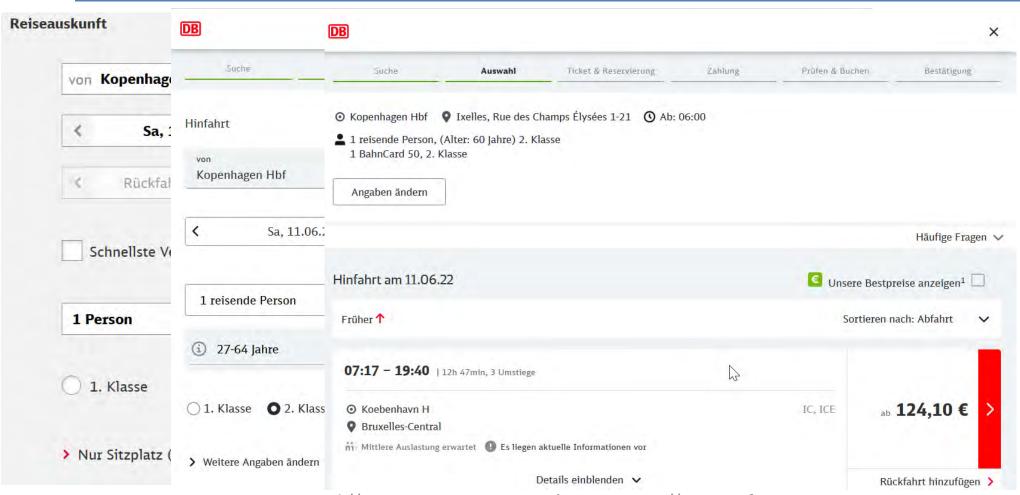






Multi modal mobility





Management Board // EUROPEAN PASSENGERS' FEDERATION // www.epf.eu

Policy



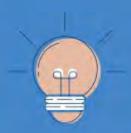
Multimodal information & Ticketing

Planning, booking and executing multimodal journeys is risky, difficult and time-consuming. EPF delevoped work around several regulations that could help to improve this.



Passenger Rights

Besides the recurring work on rights for rail, air, bus and coach and waterborne trips, EPF has also worked on understanding the impact of COVID-19 on the rights of passengers.



Future of transport

EPF has been involved in many innovative actions that will shape the future of transport, working to build a safer, greener and more reliable public transport offer for EU passengers.



Thank you

- > To all participants
- > To all speakers
- > To the sponsors
- > To the Team from EPF's office at Gent
- > EPF's member organizations

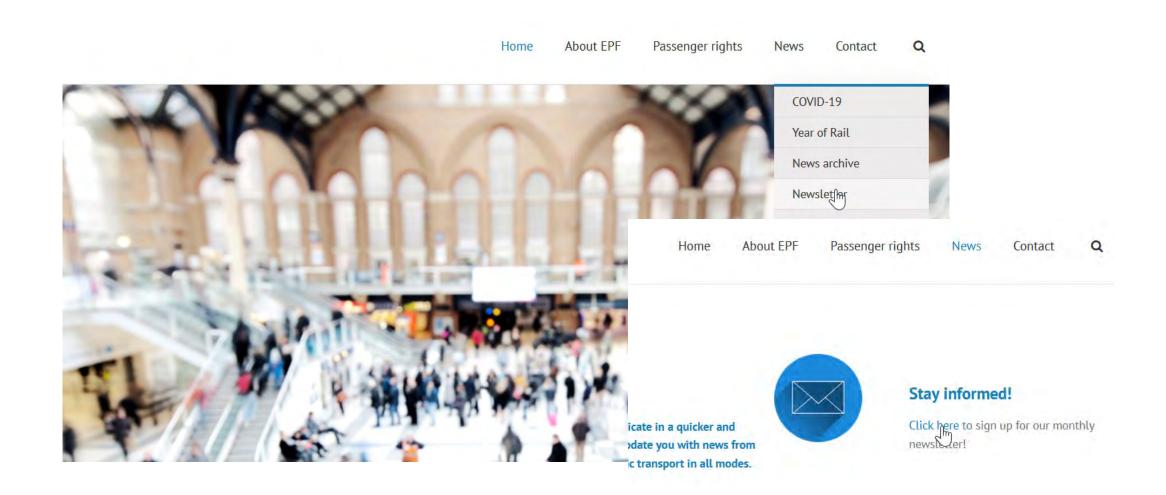
> To our host and his full team:





Stay informed www.epf.eu





Thank you for today!



