Towards a better international timetable in Europe
EuroLink “Raison d’être”

Challenges:
Green deal, climate debate, short haul flights, …
→ Need for a green solution for high CO2-emissioning transport modes

Suboptimal use of rail infrastructure and capacity
Planning of international trains within fixed national timetables vs Tabula Rasa and redesign of the European transport plan with a macro to micro philosophy

Suboptimal travel times
Plea to make rail great again by improving travel times and making international train travel more attractive and competitive with the flight market
Example: Eurostar London – Amsterdam

Air-Rail substitution
>50 daily retour flights
Amsterdam-London

Suboptimal use of infra

Suboptimal travel times from Amsterdam to London:

- 2019: 4h40
- 2020 (direct): 4h10
- Optimal (direct): 3h40

From national timetables first and international second

To international timetable first
Our motives for a better international passenger rail network in Europe

**Sustainable growth**
International rail transport enables sustainable growth as an alternative to air and road traffic.

**Better connectivity**
Rail can accommodate growing demand and the need for connectivity within Europe.

**Optimized use of infrastructure**
Alignment of national networks and full use of existing and planned infrastructure.
Our design philosophy

**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 (in addition to direct trains)
- Pan-European integral clock face timetable

More and better quality travel options for more people
Since 2020 EuroLink offers a platform for network planning experts of a growing number of rail infrastructure managers.

- **Bottom-up initiative** of InfraBel, ProRail and DB Netz, with support of the Ostschweizer Fachhochschule.

- As experts in logistics and infrastructure, we help to improve international transport for sustainable growth and better connectivity.

- Our **team is growing**: more and more IMs are contributing to EuroLink.

- Our team sees opportunities for better international rail transport by **designing logically from macro- to microscopic starting from a Tabula Rasa**

- EuroLink supports initiatives like TEE 2.0 & TTR. With joined forces we can make rail great again!

**Let’s modal shift together!**
Example: **International trains often end right after the border crossing. In EuroLink trains are extended across the country.**
Example: **Use of new hubs for long distance travel around Paris**
Example: There are already well-designed hubs for international relations. In EuroLink these hubs are refined and get even more connections.
A high-performance international passenger network in 2030 could look like this:

- Timetable structure
- International passenger services (fit with freight and national traffic to be studied in detail)
- Existing and planned infra
- High frequency between major cities
- Interconnected corridors
- New and improved hubs for quality transfer and alternating services
- National feeders
- Well serviced airports

Design is on-going
Figure is not comprehensive and purely intended as an illustration of the concept.
To illustrate the concept: **Build-up of a possible network from existing services between Paris - Warszawa**

- Current situation: partially aligned international and national services:

<table>
<thead>
<tr>
<th>Paris to</th>
<th>Today</th>
</tr>
</thead>
<tbody>
<tr>
<td>Köln</td>
<td>3h26</td>
</tr>
<tr>
<td>Berlin</td>
<td>8h20, 1 change</td>
</tr>
<tr>
<td>Warszawa</td>
<td>15h09, 3 changes</td>
</tr>
</tbody>
</table>

*Current travel times are based on public information for April/May and may be influenced by COVID.*
In Eurolink we align slots to create long-distance opportunities

<table>
<thead>
<tr>
<th>Paris to</th>
<th>Eurolink</th>
<th>Today</th>
</tr>
</thead>
<tbody>
<tr>
<td>Köln</td>
<td>3h19</td>
<td>3h26</td>
</tr>
<tr>
<td>Berlin</td>
<td>8h05</td>
<td>8h20, 1 change</td>
</tr>
<tr>
<td>Warszawa</td>
<td>13h44</td>
<td>15h09, 3 changes</td>
</tr>
</tbody>
</table>

*Eurolink travel times on this and following slides are indicative and subject to change*
With Köln – Hamburg

– Node Köln for direct Paris – Berlin or Berlin – Hamburg

<table>
<thead>
<tr>
<th>Paris to</th>
<th>Eurolink</th>
<th>Today</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hamburg</td>
<td>7h00, direct</td>
<td>8h04, 2 changes</td>
</tr>
</tbody>
</table>
With national lines Köln – Hannover & Hamburg
– Feeder and outflow of international network
With services to/from The Netherlands

Amsterdam to
Eurolink
Today

Hamburg 4h48 5h05, 1 change
With connections to the United

- High frequency fast services to London and UK fit in with yellow services on mainland
- Hub Brussel for connection London – Köln, Frankfurt

<table>
<thead>
<tr>
<th>London to</th>
<th>Eurolink</th>
<th>Today</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paris</td>
<td>2h24</td>
<td>2h36</td>
</tr>
<tr>
<td>Brussel</td>
<td>1h54/2h00</td>
<td>2h00</td>
</tr>
<tr>
<td>Amsterdam</td>
<td>3h44</td>
<td>4h10*</td>
</tr>
<tr>
<td>Köln</td>
<td>4h24, 1 change</td>
<td>6h17, 1 change</td>
</tr>
<tr>
<td>Frankfurt</td>
<td>5h32, 1 change</td>
<td>6h04, 1 change</td>
</tr>
</tbody>
</table>

*Excl. 12' stop Lille
With connections to Wien, München and Milano

- Nodes in Germany offer transfers to national destinations and further east and south to Zürich, Wien and Milano
Long-distance around Paris to Switzerland and Mediterranean
- Amsterdam – Brussel to Strassbourg/Zürich or Lyon/Bordeaux/Barcelona
- Similar for London with transfer in Lille

<table>
<thead>
<tr>
<th>Basel to</th>
<th>Eurolink</th>
<th>Today</th>
</tr>
</thead>
<tbody>
<tr>
<td>London</td>
<td>5h23, 1 change</td>
<td>6h31, 2 changes</td>
</tr>
</tbody>
</table>
With further connections to Scandinavia and Central Europe
Timetable design is on-going
- Adding new parts of Europe to the design
- Optimizing the ‘core-area’
- Adding other types of rail traffic
By iteration we will learn more about the best possible network.

Today

First timetable concept for a high-performance international passenger network

1. Market Potential and Modal Shift
2. Compatibility with National and Freight traffic
3. Governments, Railway operators and Stakeholders

Next steps

- Improved timetables
- 5-10-20 years into future
- Opportunities, bottlenecks & choices (in logistics and infrastructure)
- Climate effect
EuroLink forms a promising basis for further development

- EuroLink shows a possible high-performance international network around 2030, every hour. For short-, medium and long-distance international travel.

- Further step-by-step development of the international network for instance in pilots and TimeTable Redesign.

- New and better scenarios 5-10-20 years into the future.

- As partners in EuroLink we form a network of experts and can help in the interaction between operators, governmental parties and other stakeholders.

We’d be very interested in your thoughts and suggestions!

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