A better train connection between the Netherlands and Germany

In the Netherlands there has been a lot of discussion lately about HSL-like train connections to Germany. There is talk of the acceleration of the train connection from Amsterdam – Berlin and the acceleration of the train connection from Amsterdam – Cologne. This has not led to concrete plans so far. As set out in the European Green Deal, CO2 emissions will need to be reduced by 90% by 2050. To achieve this goal, high-speed rail traffic across Europe will have to double by 2030 and rail freight transport will have to double by 2050. Ambitions more than enough. I have decided to make a plan myself to make progress on this file. This has led to the 3 added appendices and this summary.

In my documents, the short cross-border connections between the Netherlands and Germany such as Hengelo-Bielefeld, Venlo-Hamm and many other connections are NOT discussed. The progress of these connections is not part of my research. Incidentally, the development of these connections is going very well.

Solutions that are taken for a certain connection/trajectory affect other connections. For example, if it is decided to speed up the Amsterdam-Hengelo/Osnabrück route for the Berlin train, this will mean that a fast direct Amsterdam-Hamburg connection can best run also over this connection.

There must be 1 total plan for all fast passenger train connections between the Netherlands and Germany.



Figure 1: ICE or Cargo train

Fast passenger trains and freight trains compete with each other on the limited track capacity. Too many fast trains, e.g. on the Emmerich-Oberhausen route, lead to a limitation in the capacity of the freight trains on this route.

The overall plan must include both the solutions for the ICE trains and the Cargo/freight trains.

In the Netherlands, we have ideas about improving the rail connections between the Netherlands and Germany. An example of this is the acceleration of the Berlin train. In Germany, the Deutschlandtakt project has already opted for an acceleration of this Berlin train via Osnabrück/Hengelo. In the Netherlands, no decision has yet been taken about the above referred connection.

This can be done by having all plans worked out by a working group consisting of representatives of both Germany and the Netherlands.

From the Belgian ports, many freight trains run through the Netherlands, as transit freight trains, to Germany and beyond. Belgium therefore has a great interest in improving rail freight transport through the Netherlands. That is why it is important that Belgium also participates in the abovementioned working group.

In order to make progress in the design process and to arrive at a realistic/feasible plan, choices are made from a high level of abstraction. Adjustments are possible at a detailed level without having to adjust the overall plan. The important Eindhoven – Cologne connection must be accelerated for passenger traffic. It was decided in my plans to build a new fast railway line Venlo-Neuss. If this is not feasible, other solutions can be proposed to accelerate the Eindhoven – Cologne route.

The solutions for better train connections between the Netherlands and Germany



Figure 2: ICE connection

Cargo connections NL/GE

Important conclusions in my reports:

Fast passenger train connections:

- Amsterdam Berlin via Hengelo/Osnabrück
- Amsterdam Hamburg via Hengelo/Osnabrück
- > Amsterdam Cologne via Eindhoven/Neuss
- Rotterdam Cologne via Eindhoven/Neuss
- Antwerp Düsseldorf via Eindhoven/Neuss (Belgium)

Cargo connections:

- ➤ Most Cargo trains via Betuweroute and Emmerich Oberhausen
- Hengelo/Osnabrück limited number of Cargo trains. Total per day 40-50
- Venlo/Kaldenkirchen limits the number of Cargo trains. Total per day 40-50
- Antwerp- Duisburg via Venlo. Antwerp- Poland via Hengelo (Belgium)

Why should we NOT opt for the 1 corridor solution to have all fast passenger traffic towards Germany go via the Arnhem-Oberhausen connection:

- It would be the wrong design decision to have both Cargo traffic and fast passenger(ICE) traffic to Germany run via the same connection. Both types of connections compete on the limited rail capacity on the Zevenaar-Oberhausen section. Also, the solution just mentioned is not future-proof because in the near future the ambitions are great for both freight and passenger transport. An important ambition is to significantly reduce travel times between several important European cities so that less travel is done by plane and more by train within Europe. These ambitions cannot be achieved via this single rail route!
- Via Arnhem-Oberhausen we will not get fast/optimal connections between the Netherlands and Germany, which is necessary for the transition from plane/car to train to be a success. The Amsterdam-Berlin connection via Hengelo is much shorter than via Arnhem and will therefore be faster than via Arnhem if there are sufficient investments in the Netherlands.
- ➤ Too few travelers, both in the Netherlands and Germany, benefit from this 1 corridor solution. For example, travelers from Rotterdam and Eindhoven do not benefit from a fast connection Arnhem-Oberhausen if they want to travel to Cologne and beyond. This large group of potential travelers will benefit much more from a direct fast train connection from Eindhoven to Cologne.

Tasks in the Netherlands to do:

- Acceleration Amsterdam-Hengelo. New construction HSL Apeldoorn-Hengelo and acceleration Amsterdam-Amersfoort.
- North branch Betuwe route. Cargo trains routing via Arnhem to Zutphen and then via the above-mentioned new railway line from Zutphen to Hengelo and beyond.
- Acceleration Breda Venlo. Increase on existing route speed to Vmax = 200 k/h.

Tasks Germany to do:

- Acceleration Bad Bentheim Osnabrück and acceleration Osnabrück Löhne.
- ➤ Acceleration Eindhoven Cologne. New construction HSL Venlo-Neuss and acceleration Neuss-Keulen.
- South branch Betuwe route. Twelve kilometers of single track between Kaldenkirchen and Dülken must be doubled.

<u>Annex 1 Gemeinsame Erklärung – Deutsch-Niederländische Regierungskonsultationen 27. März 2023[1]</u>

An innovative and future-proof economy and infrastructure



Figure 2: Workgroup NL-BE-GE

Germany and the Netherlands have a long common border and would like to further improve and, if necessary, expand the crossborder infrastructure. As part of the so-called intermodal dialogue, workshops on transport planning methods and possible projects will be held together with Belgium.



Figure 3: Logo European Union

Joint concrete plans will lead to a significantly better rail infrastructure, which will benefit not only passengers from Germany, the Netherlands and Belgium, but also many more passengers from north-western Europe.

These plans can therefore take into account a significant amount of EU subsidies, as these initiatives are supported under the EU Green Deal.