

Air – rail: substitution and action agenda in the Netherlands

Florence Rail Forum – Towards International Passengers Corridors Justus Hartkamp

ProRail

Air-Rail NL: concerted action for better alignment, to complement and substitute short-distance flights.

- International rail is an attractive alternative to air travel in Europe. Opportunities for better use of both modes of transport in synergy and to reduce air travel.
 - Joint ambition Ministry of Transport, KLM, Schiphol, NS, and ProRail.
 - Political pressure to green aviation: part of aviation sector plan 'Smart and Sustainable'
 - November 2020: New aviation policy and action plan 'Air-to-Rail' sent to NL Parliament (Aviation policy on hold because of political situation NL: government resignation, general elections March 17)



- Competition between both modalities on distances up to 600-800km for Origin –
 Destination travel.
- Synergy between both modalities on longer distances: combined air-rail product as part of hub and spoke system AF-KLM air hub for further intercontinental destinations.
 Scarce slots at Roissy CDG and Schiphol Airport for other use.













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Air-to-Rail significantly reduces CO₂ emissions

- Rebel Group study shows: 2-8 million tons CO₂ emission reduction yearly in Europa (equals entire road transport in NL).
- On top of that other climate effects aviation: vapour trails, NO_x, etc.
- Top 15 international citypairs with highest emission reduction potential: many connections from NL. Hence scope of action agenda Air-to-Rail.

	Relationship	Number of passengers	CO2 emissions [kg]	Potential CO2 savings [kg]
1	London – Amsterdam	6,029,462	364,179,521	193,380,121
2	London – Paris	3,535,837	200,835,569	117,692,460
3	Lisbon - Madrid	2,639,444	209,307,926	106,193,640
4	Düsseldorf – London	2,046,603	151,653,341	64,339,426
5	Stockholm – Copenhagen	2,027,682	138,085,150	53,494,908
6	Amsterdam – Paris	1,568,314	93,785,187	52,626,703
7	Frankfurt - London	2,437,879	209,413,854	51,928,226
8	Vienna – Frankfurt	2,126,201	164,780,600	45,455,144
9	Paris – Frankfurt	1,419,750	108,185,024	44,352,780
10	Amsterdam – Frankfurt	905,561	63,208,158	42,265,352
11	Amsterdam – Copenhagen	1,894,797	157,268,146	39,494,976
12	Amsterdam – Munich	1,268,383	115,803,349	39,108,119
13	Amsterdam – Hamburg	887,120	60,412,902	36,635,558
14	Amsterdam – Berlin	1,083,701	86,696,062	33,403,993
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Analysis – outcome in brief

- Joint analysis for both O-D and transfer market:
 - Origin destination door-to-door
 - Transfer: *origin* Schiphol *destination*
- General issues:
 - Ticketing rail: too complicated, booking horizon too short and pax rights limited (in case of missed connection).
 - Luggage issues with connection air-rail.
 - O-D rail in general can be improved without connection to Schiphol (growing market demand). For transfer passenger Schiphol service is essential.
 - No connections early morning and late evening.
 - Reliability of services on HSL can be improved. Both in infrastructure and in cross-border co-operation, for instance (virtual) traffic control.



- Specific issues per destination:
 - Bruxelles and Paris: excellent and frequent rail connections. Air-rail product to be improved.
 - London: service OK, frequency has to go up to replace 60 daily flights.
 - Düsseldorf and Frankfurt: frequency too low + no stop at Schiphol
 - Berlin: travel time too long + no stop at Schiphol.

Lessons-learned in process towards action agenda

- Limited (public) funding for extra investments on top of current portfolio.
- This limits concrete actions on top of current actions by individual or sector parties.
- Interest aviation and rail not identical: complementary and competing services.
- KLM and Schiphol prioritize rail feeding hub-and-spoke operation 'mainport' Schiphol. For NS and ProRail OD-passenger and other international stations other than Schiphol equally important.
- · Result: glas half full; some actions and lots of agreement on joint further investigations.
- Scope limited to actions on destination: Brussels, Paris, London, Düsseldorf, Frankfurt and Berlin (14% flights Schiphol). To be broadened during next steps.
- Impact COVID 19: temporary or structural?

