



Back-on-Track.eu

European network to promote
cross-border night trains

BRIEFING

Paving the way for more night trains - with fair track access charges.

Lowering track access charges for night trains could help to boost night train market. This would not only be beneficial for the environment, but also network operators could benefit from an economic point of view.

17 October 2023

Summary

Night train travel has an on average 28 times lower environmental impact than air travel.¹ While economic incentives for night train operators could stimulate the currently still slowly reviving night train market by enabling night train operators to run more lines and to lower the ticket prices on existing lines, at the same time travelers would benefit from more sustainable travel options and price-wise more attractive alternatives to airplane travel. One measure of incentive which was politically discussed would be a reduction of track access charges (TAC)² to direct cost. In an earlier study³ we found that a reduction to direct cost could allow to lower prices by 15% in average⁴. This reduction would be the consequence if the network operators pricing systems treated night trains as a different market segment and not in the same way as long-distance passenger traffic. According to EU regulations, a market segment shall only pay charges exceeding the direct cost if it can afford to do so. As night trains have less capacity than day trains and as night trains can't run multiple trips within a day, night train operators have obvious difficulties to pay the same charges as day trains. New study results of Back-On-Track Europe on the example of Germany show that a reduction in track access charges is not only an environmentally beneficial but also an economically sustainable measure, as the amount of initially lost income is low and will most likely exceed the currently foreseeable earnings after a couple of years that night train operators need to invest in new night trains, following an announcement of a permanent TAC reduction.

¹ Back-on-track Europe (2022). The Global Warming Reduction Potential of Night-Trains.

² Track access charges (TAC) are tolls paid by rail operators to use the rail infrastructure.

³ Back-on-track Europe / Transport & Environment (2023). All aboard – travelling Europe by night. Towards cheaper night train tickets for people.

⁴ Including a VAT exemption of international train tickets, which is still applicable in 5 EU member states.



The key findings

- An immediate reduction of TAC to direct cost^{5,6}, for the night train segment would reduce revenue by 9 Mio. € in 2024 which is only slightly more than the current federal budget on night train studies.⁷
- Negative impacts on EBIT to the infrastructure manager due to lowered TAC per kilometer can be fully offset after 5 years by higher demand of night train operations after lowering TAC, if the reduction would only start after a 2 year period, in which not even refurbished rolling stock could be made available.

The evaluated scenario

Based on calculations using Back-On-Track's night train model, the revenue of infrastructure manager DB Netz from night train's track access charges is estimated to be roughly 15 Mio. € in 2024. This includes 60 night train connections⁸ identified in the train schedule of 2023 traversing Germany. In addition, four new night trains announced in press release of DB⁹ for the timetable year of 2024 were included. For a full list of night trains with operating patterns and distance kilometers included, see our calculation in the data annexe. A political commitment in 2024 to reducing track access charges to direct costs in the year 2026 would offer economic incentives to night train operators to invest now. Costs from TAC, which currently account for 10-20 % of the operating costs, depending mainly on distance, would roughly be cut into half. Thus, the operators could spend almost 10 % of the current operating costs on rising comfort levels or lowering ticket prices. Both would lead to travelers switching travel mode from plane to night train - although among different customer segments (comfort oriented vs. price sensitive customers). Following that, network demand in night train track kilometers is predicted to be rising as companies offer new routes as a reaction to growing demand. However, during 2024 and 2028 offering new night train routes and thus track kilometer growth is going to be limited by operators' coach availability. An early as possible announcement will allow night train operators to prepare for ordering coaches that are needed to offer new night train routes in a market with improved economic conditions. With an availability of new coaches to the market earliest in 2028, from then on

⁵ TACC [2024]: 2,86 €/ km, thereof direct cost: 1,07 €/ km

⁶ The direct cost is the fee that rail operators pay to compensate the infrastructure manager for the cost caused by the rail operator for mainly maintenance and operation of the infrastructure. Mark-ups come on top of the direct cost. They shall help the infrastructure manager refinancing the original cost of the existing infrastructure.

⁷ Gelbhaar, S. (2022) im Tagesspiegel, available at: <https://www.tagesspiegel.de/berlin/grunen-politiker-gelbhaar-will-mehr-ice-halte-am-bahnhof-zoo-4333975.html>

⁸ One night train is uniquely defined by its train number. Route Sections where two or more trains are coupled are counted once for TAC calculation.

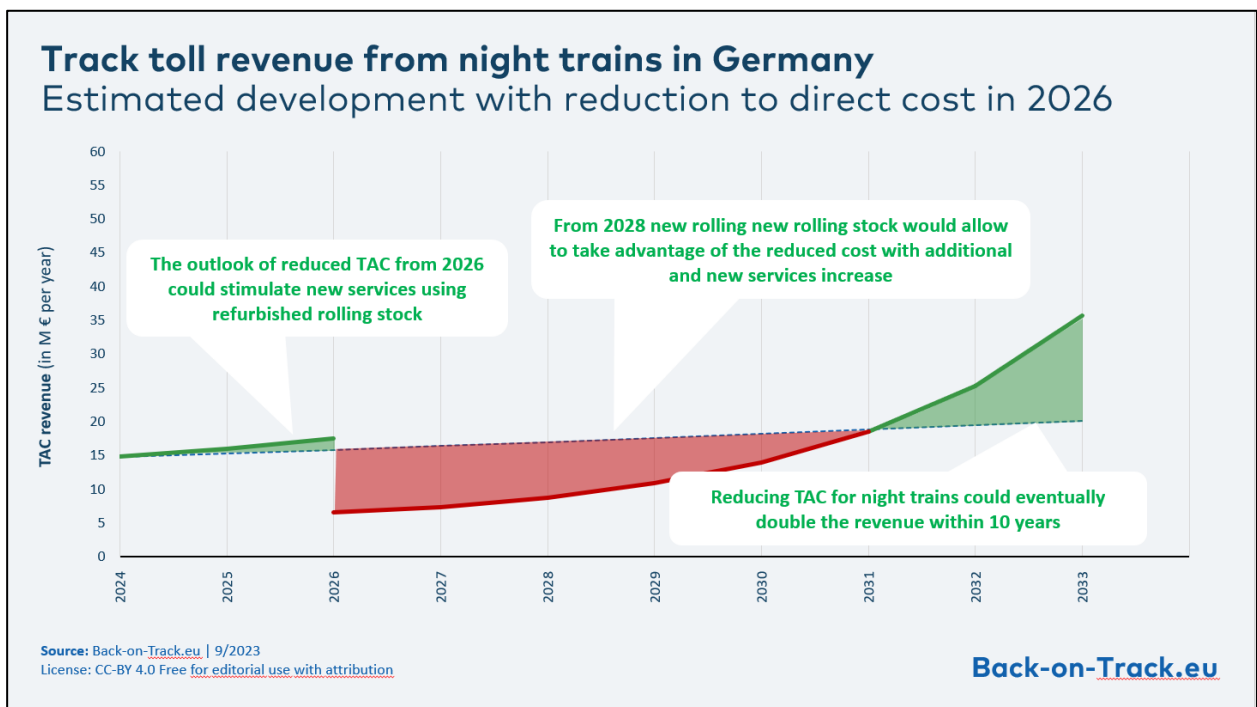
⁹ DB (2023). Fahrplan 2024: bis zu 25 Prozent mehr Sitzplätze auf Haupttrouten, available at:

https://www.deutschebahn.com/de/presse/pressestart_zentrales_uebersicht/Fahrplan-2024-bis-zu-25-Prozent-mehr-Sitzplaetze-auf-Haupttrouten-11892750



stronger market growth is possible. All in all, we estimate a growth potential of in average 20 % per year up to 2033 within this study. From demand side of the market this growth rate seems to be very reasonable. One earlier study of Back-on-Track.eu showed the potential of 362 Mio. passengers per year through replacement of airline connections by night trains.¹⁰ Consequently, our calculations show that Germany's infrastructure manager DB Netz could almost double income of track access charges from the night segment per year by 2033 (see figure 1). This includes the assumption of a dynamization rate for TAC by 3.5 % per year as stated in the Integrated Interim Report of DB AG 2022.¹¹

Figure 1 - Track toll revenue from night trains in Germany



¹⁰ Back-on-track Europe (2022). The Global Warming Reduction Potential of Night-Trains.

¹¹ <https://zbir.deutschebahn.com/2022/en/interim-group-management-report-unaudited/development-of-business-units/business-units-in-the-integrated-rail-system/infrastructure/db-netze-track-business-units/general-framework/>