

## Environmental and Social Data Sheet

### Overview

Project Name:	OEBB SUEDSTRECKE SEMMERING BASISSTUNNEL	
Project Number:	2014-0074	
Country:	Austria	
Project Description:	Upgrading and rehabilitation works on the railways between the cities of Vienna and Bruck an der Mur, part of the Baltic-Adriatic Core TEN-T Network. The works include the construction of the 27 km long Semmering base tunnel, around 24 km of track doubling, and construction of a new multimodal freight terminal near Inzersdorf, Vienna.	
EIA required:	yes	
Project included in Carbon Footprint Exercise <sup>1</sup> :	yes	
(details for projects included are provided in section: "EIB Carbon Footprint Exercise")		

### Summary of Environmental and Social Assessment, including key issues and overall conclusion and recommendation

The Promoter has to comply with the requirements of EU EIA Directive 2011/92/EU and Habitats Directive 92/43/EEC. All schemes included in the project are subject to an EIA. Only for a part of the track doubling of the Pottendorfer Linie the EIA process is not yet completed. Finance for this schemes will be made conditional upon receipt from the Competent Authority of the final environmental permit and the consent of the Competent Authority for Nature Conservation. For the other schemes all the necessary permits have been obtained, and construction has started.

Based on the nature of works included in the project, only minor adverse effects are expected on the environment. The Semmering tunnel is a long and deep tunnel, and the impacts will be localised at the tunnel portals and construction shafts. The double tracking of the Pottendorf Linie takes place largely inside the existing railway corridor, except for a bypass to reduce impacts on the village of Ebreichsdorf. The double tracking is accompanied by introduction of noise barriers where necessary. The new freight terminal is built adjacent to the built up area of Vienna, partly on top of an existing motorway, and impacts on the surroundings are reduced by planted earth walls, reducing the potential visual and noise nuisance. Despite some disturbances during construction, the project is expected to have an overall positive impact on the environment by increasing the attractiveness of Austria's railway services, thus promoting a modal shift from road to rail transport.

Taking into account the above, the project is acceptable to the Bank.

### Environmental and Social Assessment

The 'Bundesministerium für Verkehr, Innovation und Technologie' (BMVIT) is the Competent Authority for all railway construction projects, following the Austrian EIA law of 2000 (UVP-G). The project consists of three schemes. The environmental procedure, impacts and mitigants or each schemes are described below.

<sup>1</sup> Only projects that meet the scope of the Pilot Exercise, as defined in the EIB draft Carbon Footprint Methodologies, are included, provided estimated emissions exceed the methodology thresholds: above 100,000 tons CO<sub>2</sub>e/year absolute (gross) or 20,000 tons CO<sub>2</sub>e/year relative (net) – both increases and savings.

*Construction of the Semmering base tunnel:*

The 27 km long tunnel from Glognitz to Murzzuschlag is required to increase capacity and transport speed, and will reduce traffic on the existing surface line, which is protected as a UNESCO Heritage site. The scheme has been subject to a full EIA which was completed in 2010 and the environmental permit was obtained in 2014. The scheme includes a large landfill location for the excavated material, whose analysis was part of the EIA procedure. At the eastern side, the tunnel runs underneath the Nordöstliche Randalpen, Hohe Wand-Schneeberg-Rax, a Natura 2000 area (AT1212A00 SAC). The eastern entrance of the tunnel borders the area and the first part of the tunnel is constructed underneath the conservation area. The planned ventilation shafts and access tunnels are not located in this first part. The Competent Authority for the area, the Bezirkshauptmannschaft Neunkirchen, has assessed the impacts of the project design on the conservation area and provided its consent by a decision published in December 2011, confirming that the project is not likely to have significant effects on the nature conservation site. The decision included mitigation measures to reduce the impact of the construction works around the tunnel portal such as the use of sodium vapor lamps to limit light pollution. The western part of the tunnel does not cross or come close to any Natura 2000 area and Bezirkshauptmannschaft Murzzuschlag, the Competent Authority for this part of the tunnel, provided its consent by a decision published in July 2011.

As the project is tunnel construction, the impacts on the surface environment are mostly around the tunnel portals, ventilation shafts and during construction at the access roads and the landfill. The impacts during construction are mainly visual and the usual localised impacts such as dust, noise and those related to air quality which will be mitigated by standard construction good practice measures. Large quantities of excavated material need to be transported to the landfill, partly by truck and partly by conveyor belt. During operation, the impacts will be limited and localised around the tunnel portals and ventilation shafts. In addition, there may be an impact on the groundwater, as due to the depth of the tunnel the pressure is high and infiltration of water and therefore drainage cannot be completely avoided.

*Construction of phase 1 of the new cargo terminal at Inzersdorf*

A full EIA for the new terminal construction has been completed and the environmental approval was issued by BMVIT in February 2012. In addition, there have been amendments of the EIA and the environmental approval in July 2013 and February 2014 due to changes in the scope of works. The terminal will cover 55 ha and provides facilities for wagon-load bulk traffic, containerised freight transport and general cargo. A 270 meter long motorway tunnel will be built, as the terminal crosses the existing S1. The terminal borders the built-up area of Vienna, and to limit nuisance to the neighbourhood at the north side of the terminal, the scope of works includes planted earth walls reducing noise and visual intrusion. In addition, design includes a water retention basin in between terminal and the neighbourhood at the north, to increase the distance between living areas and the actual terminal activities. The EIA concluded that the scheme does not significantly impact on any nature conservation area. There is no Natura 2000 site close to the terminal.

*Double tracking of a 24 km long section of the Pottendorfer line*

This scheme is split in two parts. For the first part, from Wien Blumental to Münchendorf, an EIA was completed in May 2012 and the environmental permit was obtained in 2014. In May 2015, there has been an amendment of environmental approval to incorporate some changes in the scope of works. The double tracking is largely done within the existing railway corridor, except for two locations where curves are straightened to allow higher travel speeds. Total additional land take is low at 29 ha. The "Feuchte Ebene Leithaauen (AT1220000)" is the closest Natura 2000 area (under the Birds Directive). The EIA concludes that the area is not affected by the project given that at this location works will solely take place inside the existing railway corridor. Finance for this part of the scheme will be conditional upon a receipt of a confirmation of the Competent Authority that the Natura 2000 area is unaffected by the project. Overall, the residual impacts of the scheme on the environment is expected to be limited or positive, as the scope includes noise barriers and improves railway crossings for both local residents and fauna.

For the second part, from Münchendorf to Wampersdorf, the EIA process is still ongoing and completion of the environmental study is expected mid-2015, and a final environmental permit is expected in the second half of 2016. The scope of the works for this section includes a new track built 1 km east of the existing track over a length of 9 km to bypass Ebreichsdorf. Residual noise impacts during operation will be limited due to the inclusion of extensive noise barriers. EIB finance for this section has been made conditional upon receipt of the final environmental permit, and the consent of the Competent Authority for Nature Conservation.

### **EIB Carbon Footprint Exercise**

The project is included on the following basis:

Estimated annual third party greenhouse gas emissions (vehicular use, from existing and induced demand) from the use of the project in an average year of operation over a 34 year assessment period:

- Forecast absolute (gross) third party emissions are 25,000 tonnes of CO<sub>2</sub> equivalent of which about 11,000 tonnes are forecast from induced traffic; and
- Forecast emissions savings are 146,000 tonnes of CO<sub>2</sub> equivalent.

The project assessment boundaries are:

- In the absolute case, the section of railway line between Inzersdorf (Vienna) and Bruck an der Mur, totalling 143 km along the existing infrastructure and 129 km through the new Semmering tunnel.
- In the baseline case, both (i) the section of railway line between Inzersdorf (Vienna) and Bruck an der Mur, totalling 143 km along the existing infrastructure and (ii) the highway network between the same cities, totalling 140 km.

The forecasts in the baseline and absolute cases are based on Services' project specific assumptions about the workload of rail services (freight and passenger trains only) and fuel efficiency of rail operations. In the baseline case, a portion of emissions from cars, buses and trucks is included using project specific emission factors, equivalent to those passenger or freight trips expected to shift from road to rail in the "with project" case.

For the annual accounting purposes of the EIB Carbon Footprint, the project emissions will be prorated according to the EIB lending amount signed in that year, as a proportion of project cost.

These forecasts may differ from those of the Promoter due to different assumptions, boundaries and baselines.