

# KfW IPEX-Bank

## The Heidekrautbahn Railway Network as an Innovative Financing Model

By Dr Carsten Wiebers  
Global Head of Mobility at KfW IPEX-Bank

The Heidekrautbahn regional railway line in Berlin and Brandenburg that is operated by Niederbarnimer Eisenbahn (NEB), will be improved, modernised and expanded.

In the upcoming years, NEB will reactivate the trunk line of the Heidekrautbahn network. The trunk line from northern Berlin to the beautiful Schorfheide will be restored in full. The line was severely damaged in WWII and the connection was completely severed when the Berlin Wall was built. Eight new stations from Berlin-Wilhelmsruh to Basdorf will be reopened to passenger service in 2024. The diesel trains currently in use will be replaced by seven low-noise, emission-free hydrogen trains. The upgrade and expansion of the Heidekrautbahn network are part of a broader effort to improve the transport infrastructure in the region.

### Attractive, Environmentally Friendly and Climate-Neutral

The Mireo Plus H trains from Siemens Mobility are equipped with a fuel cell drive and a lithium-ion battery. These second-generation hydrogen trains deliver zero-carbon mobility. They will transport passengers not only faster and cleaner than before, but also climate-neutrally in the future.

Hydrogen technology plays a key role due to the existing renewable energy supply in Brandenburg. To produce the required green hydrogen locally, a hydrogen plant is being built near the railway. The



© NEB

electricity required for this is to be generated entirely within the region from wind and solar. It is a joint project: the project developer ENERTRAG is responsible for the construction of the hydrogen plant – one part of the hydrogen infrastructure. The NEB will commission the hydrogen-powered trains on the line, and Kreiswerke Barnim will construct an H2 filling station – the other part of the hydrogen infrastructure. These new trains will save around 1.1 million litres of diesel annually, equivalent to potential savings of around 3,310t of CO2 or the CO2 absorption of 120,000 trees when green hydrogen is used.

The upgrade and expansion of the Heidekrautbahn will serve as a model for similar projects throughout Germany and beyond, also with regard to its financing solution.

## Financing: A Challenge

For a bank, pure asset-based finance, i.e. financing based solely on the value of trains as a credit risk, is not yet possible for hydrogen trains. The technical risks and the still barely existing market for these types of trains would make financing too costly. Borrowing from public budgets would increase their debt. Even traditional public-private partnership (PPP) financing would entail high financing costs. Meeting all interests while securing low borrowing costs for a long period is an extraordinary challenge for overall financing.

## Solution: Division of Tasks and Co-operation between All Parties

The funds for the overall project consisted of federal and state grants as well as loan financing for the trains of EUR 60 million from KfW IPEX-Bank.

The complexity of the project and the various interests of the parties involved require a modern and intelligent architecture for the overall project. The relationships between the partners are crucial. Financing within this structure reconciles the interests of all parties: manufacturer, buyer, mobility owner, operator and financiers.

- The mobility owner is a project company of Deutsche Anlagen-Leasing (DAL). It limits its functions to ownership, rental and financing. The financing covers the entire project term – from the approximately two-year construction period to the end of the 25-year operating period.
- Niederbarnimer Eisenbahn (NEB) focuses on running the trains for the initial ten-year transport contract term and pays leasing instalments to the project company.
- The states of Berlin and Brandenburg, as transport authorities, award the transport contract and assign parts of the grant payments to the project company. They also secure the continued use of the trains for a further 15 years and make a commitment to subsequent use.
- KfW IPEX-Bank purchases the assigned grant



Watch our video!

The operation of the innovative hydrogen powered trains will reduce CO2 emission by approx. 3 million kg per year - which equals absorbing power of 120,000 trees.

Carsten Wiebers, Global Head of Mobility  
KfW IPEX-Bank

payments and thus finances the trains at favourable conditions over the entire term.

- The manufacturer Siemens Mobility has security with regard to the payments of the purchase price instalments due.

The key factor in this mobility owner concept is that every participant specialises in their core tasks. The advantages are clear: financing security, favourable conditions in line with municipal needs and the greatest possible transparency for the transport authorities while securing investments in the long term: in this case, hydrogen trains.

## New Architecture for Innovative Mobility

New technology will address the challenges of the mobility transition. Due to the complexity of such projects, it makes sense to share the tasks with co-operation partners. This is where KfW IPEX-Bank contributes its distinct know-how and in-depth market expertise. In principle, the mobility owner concept can be applied to all public sector investments for public services. The entire project for the new Heidekrautbahn, with all its participants, provides an excellent master plan for this.

Visit our [website](#).  
Follow us on [LinkedIn](#).



## »»» Shape the future. With a strong financing partner.

### **We support all those investing in the future of mobility.**

For private companies and the public sector: we work with you to develop solutions that meet your particular needs. We offer you know-how and experience gained from current projects in your industry all over the world. Together with you, we can shape the future – with long-term and individually structured financing. Because the future belongs to those who think ahead. Let's shape it together.



**KfW** IPEX-Bank