



# Successful Integration of ScreeneX Innovative Solutions in DB Ideenzug innovation Car.

#### **Overview**

To meet increasing customer needs, DB Regio decided to create a new vision of future railway mobility together with design company <u>Neomind</u>. The <u>Ideenzug</u> (Idea Train) is an innovative train interior showcasing many possibilities to enhance the passengers' travel experience. Some areas focus on relaxation, others on productivity, social interaction or entertainment.

# The Challenge

ScreeneX has been chosen by DB Ideenzug to become a partner and to provide 4 new prototypes that respond to their needs. The train will be showcased in various cities in Germany throughout 2018-2019 and at <u>InnoTrans 2018</u>, the world's largest trade fair for the railway industry.

#### Why ScreeneX?

Neomind, one of the leaders of this project, was keen on testing the innovative solutions of ScreeneX by OSG. The idea behind ScreeneX is embedding the screens inside glass units. The ScreeneX technology was developed by OSG and has been tested and qualified for rail applications during the last 3 years. The ScreeneX solution offers many advantages compared to traditional passenger screens that DB Idenzug uses, mainly in interior design, optimization of cabin space and durability of the products. Other than these advantages, ScreeneX is extremely reliable and is offered as a universal HW that can connect or be integrated into any existing or new PIS system/architecture.





# **The Solution**

In September 2018, DB Ideenzug together with Neomind implemented 4 Innovative ScreeneX Systems in its new innovative futuristic train.

**ScreeneX TRN 27T (27" 16:9)** with interactive touch-interface in partition; These 2 partitions (right and left sides) are located at the Gaming Shopping module entrance and are aimed to allow passengers to browse the web, look for information and even perform on-line shopping of DB or other vendors' products and services. The Touch interface is fully embedded in the glass and is protected from environmental damages or vandalism.



**ScreeneX TRN MPW (Multi-purpose Passenger Information Window):** in sidewindow located at the family module. This Prototype demonstrates several possible applications for passenger information that can be utilized by using embedded technology. Such information includes passenger seating notices (which replace the need to integrate screens in the wall and/or in the luggage rack as typically done. The integration of such screens in the window simplifies the integration process. In additional to personal seating screens the unit also includes a main screen located in the lower part of the window, for route information, weather updates and general passenger information.







**ScreeneX TRN 29-LED** in side-window that located in the Family module. This product illustrates the dual-functionality of the ScreeneX solutions. On the internal side there is a fully embedded LCD panels for passenger information (in this case a 29 stretched (32:9) screen) and on the external side, an LED destination sign. This solution optimizes the screen area for information for passenger on the train and on the platform. We understand that "blocking" a portion of the window comes with a price – this solution maximizes the return for such a "sacrifice".







# The Project

The design stage of the project includes the design of the glazing units and the configuration of the system per the content and architecture of the PIS solution chosen by the passenger.

**Design and planning:** The joint engineering work between OSG, Neomind and DB Ideenzug began in April 2018. The parties defined together the scope and requirements for the pilot. The next steps were the design of the ScreeneX system to fit the dedicated locations by OSG and the joint design of mechanical integration and passenger information to be presented on the systems. This stage was done together with the professionals from all 3 companies.

**Design of the ScreeneX glazing unit:** The entire design process is done by OSGs design and engineering team which are glazing experts in design per spec. or per drawing of various glazing systems. The other part of the design team is the ScreeneX engineers which oversaw the integration of the screens into the glazing as well as the configuration of the system. The design was based on the drawing of the original window and frame, measurements taken in the train. The outcome was new glazing units which with the embedded screens which perfectly fits the partition and side-windows of the train.



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**Design of the Glazing units:** we work with the client to define the preferred serigraphy pattern and design. In this case, the client defined the required height of the touch screens in order to meet ergonomic requirements.

Integration: the challenge in this case was to define the mechanical mounting of the units as well as to ensure the proper passage of the cables between the glazing unit and the electronic HW. This design and implementation was done together with Neomind and DB. Another issue to address was the mounting of the electronic HW. Similar to a real train project, the HW was mounted behind the internal wall panel.

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#### The outcome

The outcome of this project was well seen at Innotrans 2018. Thousands of visitors who visited the DB Ideenzug had a chance to see how the ScreeneX solutions are combined today in the trains of tomorrow. The technology behind the ScreeneX solutions exhibited is not a future concept but a proven and tested product. As indicated by DB after Innotrans, the solutions behind the DB Ideenzug are expected to become reality faster than expected and even in 2019. The ScreeneX solutions will be part of this reality.

![](_page_4_Picture_7.jpeg)

Pour plus d'informations sur ScreeneX, visitez notre site: <u>www.screenex-tech.com</u> Pour recevoir les dernières nouvelles et mises à jour de ScreeneX, abonnez-vous ici: <u>https://screenex-tech.com/contact/</u>

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### The outcome

The system transformed the existing glass partitions of the LNVG Dosto bike-car into real-time onboard digital information dual-side displays, without changing significantly the partition's thickness or general look and without using any external mounting elements.

The solution provides a comfortable feeling of a well-designed cabin without changing the clean design of the interior with sleek integration of screens for better passenger information.

The pilot trail period: The PoC project is intended to run for passenger review for about 4 months. ScreeneX is confident that it will be able to meet LNVG's high demands on reliability and performance with these innovative display units and is looking forward to further successful cooperation with BT.

![](_page_5_Picture_6.jpeg)

For more information on ScreeneX, visit: <a href="https://screenex-tech.com">www.screenex-tech.com</a> To receive the latest ScreeneX news and updates, subscribe here: <a href="https://screenex-tech.com/contact/">https://screenex-tech.com/contact/</a>

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