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Data & Monitoring

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Passenger Information System Refit Specialists

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CN-Consult supplies passenger information for stations as well as trains including various hardware solutions to display real-time information

Johann Richert, Head of Project Management at CN-Consult, discusses how you can upgrade your customer experience by modernising passenger information systems.

Passenger information systems (PIS) are one of the key services that influence the travel experience.

Journey information with real-time adaptation to the current operational situation, clear and unambiguous announcements tailored to requirements and increased security through video surveillance in vehicles and stations are just some of the components of a modern PIS that provide passengers with a more positive travel experience.

One survey, undertaken by the **German Aerospace Center (DLR),** found that over two thirds (69%) of rail travellers were dependent on passenger information, and that demand increased hand in hand with digitalisation.

With this in mind, comprehensive dissemination of real-time information is no longer optional for rail transport companies.

Modern Passenger Information Systems

A modern PIS adds value by introducing new technologies without additional personnel, and by automating actions so that the correct information

is always distributed, especially in exceptional circumstances.

With today's technologies it's possible to create intelligent solutions for critical emergency situations, so that passengers are informed as required, while enabling the operator to concentrate on the critical actions.

In addition, a railway company is perceived by its users as innovative if its rolling stock is equipped with state-of-the-art passenger information. Many operators are already integrating various additional functions to the classic passenger information offering, such as train capacity indicators, passenger guidance, wayfinding and advertising content etc.

Another aspect often overlooked is that information can be prepared and transmitted in different ways. The PIS is the dynamic component of the railway and therefore is the visual face for the passenger. Real-time passenger information increases user-friendliness of the entire business and is ultimately a decisive factor in attracting more travellers to the railways.

Design is also a major component of the PIS that makes rail travel more enjoyable. Additionally, a good PIS will also increase staff motivation through its optimal workflow efficiency on the operator's side.

Keeping Up with Advancements

Nowadays, we've become accustomed to regularly updating our devices due to technological advances. With the speed of change, modernisation touches all aspects of our lives, including transport.
The needs of train operators and customers change over time; they therefore need to take the same approach to renewing their technology. Rail vehicles are modernised halfway through their service life, usually around the 15-year mark, and PIS updates are a part of this process.

However, with increasing customer demands and progressive developments in this sector, these upgrades can be quite complex.

Upgrading to a PIS with new software and hardware components is a very difficult undertaking, especially during ongoing operations, as this often results in time constraints that need to be considered. With this

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Display technology has improved over the years with both LED and TFT displays offering a wide range of possibilities to inform the passenger at the station

in mind, a modern PIS must also be easily expandable, so that it can be more simply adapted to future developments when vehicle modernisation occurs.

Experience shows that the risks often lie not in the general feasibility of the task, but rather the available resources, and communication between all the relevant stakeholders.

Furthermore, the time and effort involved is very project-specific. Not all rail operators will require the same upgrade path, as each will have their own experience with PIS and therefore be at varying levels of development. As a result, they each have a different set of requirements and potential contributions to make to a refurbishment project.

Professional planning is therefore key to the success of any given project.

Why Work with CN-Consult on Your PIS Refit Project?

CN-Consult has many years of experience in the PIS refurbishment sector and takes operational requirements into account when planning and implementing such projects.

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There are many options on how to display passenger information, each one individually tailored to the customer's needs

Our first step is always to perform an on-site analysis, so that the offer and all surrounding components and potential risks can be considered before work begins.

The use of existing components ensures sustainability and helps to make refurbishment projects more efficient, and few companies have our experience of integrating existing components with new elements/technology.

CN-Consult is also one of the few suppliers of complete systems, offering the entire passenger information portfolio of hardware and software, landside and onboard.

These services are complemented by the integration of existing subsystems and the custom development of interfaces, hardware and software to meet each clients' specific needs.

CN-Consult's Mobile Passenger Information Interface (MPI)

Modern passenger information depends on communication and at the heart of this is the communication language between the vehicles and the landside system.

With our Mobile Passenger Information Interface (MPI), we've developed a communication protocol that, in addition to all the requirements of real-time passenger information (timetable updates, forecast data, connections etc.), can also exchange a variety of additional information.

This includes, but isn't limited to, status information from the hardware components, communication options between the driver and the control centre, live announcements from the control centre and data transfer from peripheral systems such as passenger counting data or energy consumption data.

The increasing necessity to exchange more data was a key factor in the development of the MPI. We decided from the beginning to deliberately disclose our interface and make it accessible to everyone to advance the railway market in this respect.

CN-Consult's MPI is freely accessible to everyone and is constantly being improved upon, with all users informed of updates so that the interface sets new standards in its field.

In past projects, we've even found competitors abandon their own interfaces in order to benefit from the functionality, efficiency and integration options of our free MPI.

Choose a Specialist, Choose CN-Consult

Modernisation projects are a discipline in their own right, especially in the case of the PIS sector, with detailed requirements that demand specialist knowledge.

As an experienced provider of PIS, both for new fleets and especially existing ones, we can draw on a wealth of experience in refitting systems and are here to support you when it comes to enhancing your customer experience with modern passenger information.

www.cn-consult.eu

For more information, please visit www.cn-consult.eu or email us at sales@cn-consult.eu.