



INFRASTRUCTURE
& TRANSPORT



High-quality. Safe. Pioneering.

Customized electrical installation
solutions for the railway sector

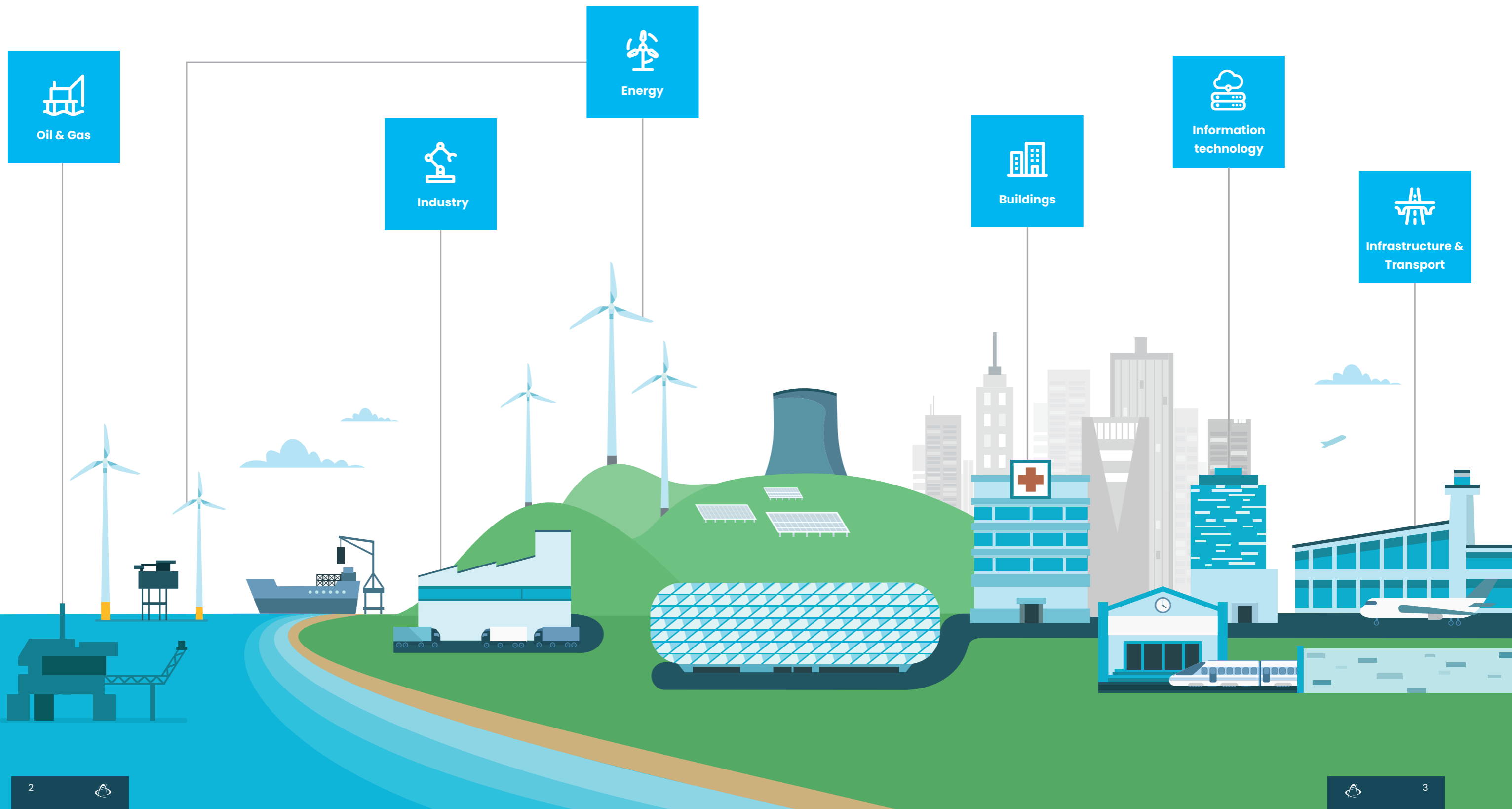


Expertise in complex sectors

High-quality electrical installation solutions

For more than 100 years, the name Niedax has been synonymous with pioneering electrical installation. Pioneering now means not only state-of-the-art, but more than ever, it is also designed to meet the increasing demands for mobility. As a global player with the vision of a safe electrical world, we are committed to meeting this challenge. We are a strong partner in various fields, including the railway industry. Our comprehensive service portfolio is as individual as our customers' projects.

We think of every construction project holistically. In addition to consulting, planning, and construction, we also take care of on-site production, customized packaging, and delivery of the cable management systems. To meet these requirements, we always provide uncompromising Niedax quality. This is ensured by our quality management which regularly checks and optimizes all our electrical installation solutions.



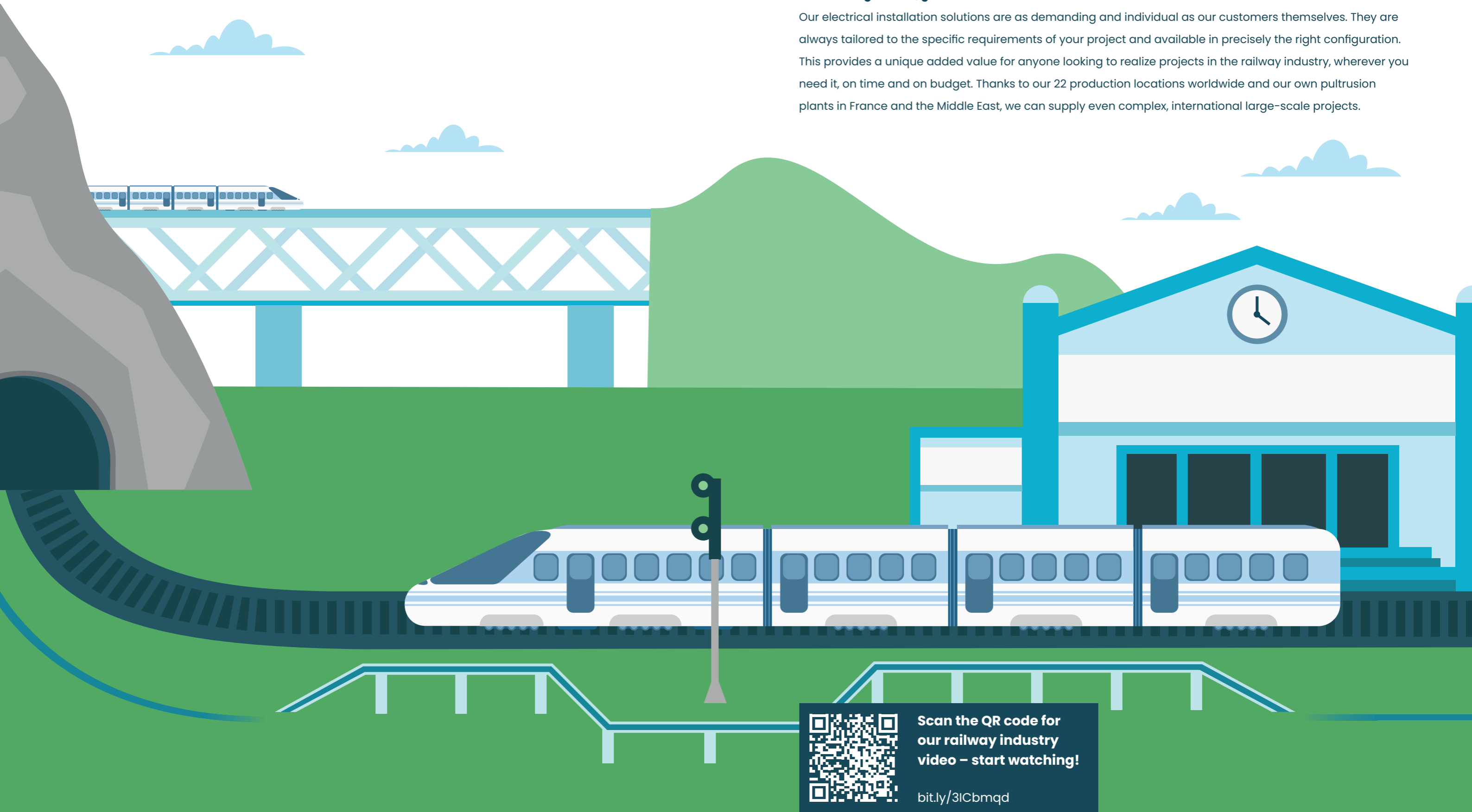
We safely pave the way for electricity

For comprehensive mobility

When many people are on the move, safety is of the utmost importance. Accordingly, you will find our high-quality electrical installation products in train stations, on trains, along rails, in tunnels, and even on railway bridges. Sophisticated systems from the Niedax Group thus ensure a maximum level of safe and efficient mobility worldwide. We also keep an eye on the challenges of the future, as demonstrated by our support for the digitization efforts of the rail industry. For more information, please see page 20.

Outstanding service, global distribution

Our electrical installation solutions are as demanding and individual as our customers themselves. They are always tailored to the specific requirements of your project and available in precisely the right configuration. This provides a unique added value for anyone looking to realize projects in the railway industry, wherever you need it, on time and on budget. Thanks to our 22 production locations worldwide and our own pultrusion plants in France and the Middle East, we can supply even complex, international large-scale projects.



Scan the QR code for our railway industry video – start watching!

bit.ly/3ICbmqd





Electrical installation mobilizes progress

Niedax solutions for train stations

Train stations are high-traffic areas. Its electrical equipment must meet the highest safety standards and ensure the functional integrity of electrical systems in case of emergency. The requirements related to fire and evacuation protection are particularly important.

Niedax's products are reliable and keep you on the safe side. They offer versatile strengths, including maximum stability, corrosion resistance, as well as easy and efficient installation.



Vertical Cable Ladder STL

- + Efficient and fast installation
- + Maximum safety for train stations



Cable Tray System RS

- + Stepless infinitely variable fixing
- + Suspension length up to 2,000 mm and width up to 600 mm



Collective Holder SHS

- + High mechanical strength
- + Bundling of up to 80 cables on walls and ceilings
- + Fast installation with low effort

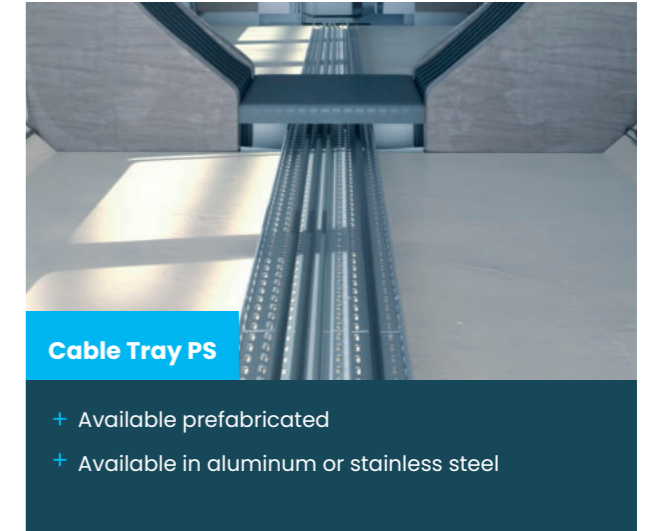
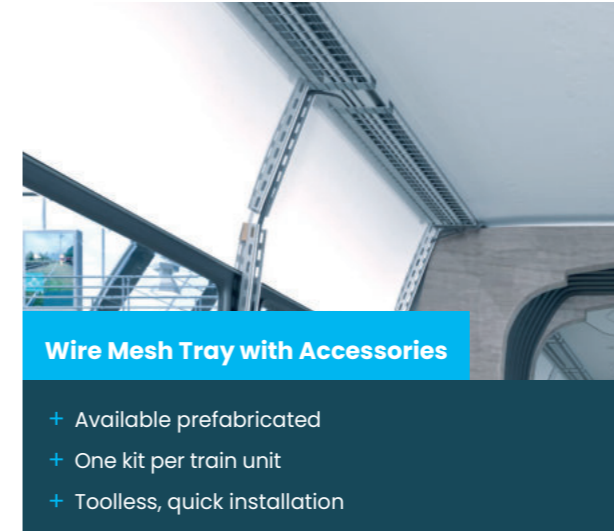


Top-notch electronic equipment on board

High-quality products for trains

To ensure a safe electrical installation on the train, we offer our customers individually tailored solutions for cable routing. Whether on short or long distances, powerful and reliable electrical equipment on board of high-traffic transport vehicles is essential.

Niedax products not only ensure personal safety in case of emergency but also provide the power supply for essential functions. For example one of our proven classics is well-suited for this purpose. With our mesh tray including accessories, cables can be routed quickly and toolless on the floor, ceiling, or wall.



Innovative solutions for a safer electrical world

Electrical equipment for the track

Along the railway track, a new Niedax product highlight demonstrates its advantages: The patent pending swing-in ground channel system EDBK, a floor duct system, specially developed for the highest requirements when laying railway power lines. It is compatible with various installation methods and can therefore be used in a maximally flexible manner.

Regardless of whether it is flush-mounted, elevated or installed on the ground, our EDBK adapts to all project conditions. The result is unique efficiency and comfort during installation – especially over long distances. The range of solutions for railway tracks is complemented by the cable junction box and the Self-Standing Cable Troughing System.



EDBK System

- + Specially designed for installation over long distances
- + Flush with the ground, elevated or on the ground
- + High laying speed compared to competitive solutions
- + No blocking periods necessary



Self-Standing Cable Troughing System SP

- + Designed for multiple cables
- + Available in various widths



Cable Junction Box KVK

- + Durable, self-locking, and recyclable
- + Temperature resistant from -80 °C to 130 °C



Scan our videos

for more details about the patented EDBK system.

bit.ly/3q4TcHc



High-level safety

Niedax solutions for railway bridges

In Germany, over 25,000 railway bridges must withstand heavy loads and challenging weather conditions daily. Regular inspections and renovations are essential. With the expansion of new routes, more and more bridges are being added continuously all around the world. Whether in new construction or renovation, Niedax is your experienced partner for reliable electrical installation. Niedax brand products ensure safe cable management along the entire route, even on steel railway bridges.

In this context, Niedax glass fibre reinforced plastic products such as the cable tray from our KKL product series, which is installed beneath the pavement, are particularly suitable. With professional installation, they reliably withstand the dynamic forces of passing trains on railway bridges as well as various weather conditions, thanks to their high corrosion resistance.



Cable Tray KKL made of GRP

- + Lightweight construction
- + Resistant to brake dust abrasion
- + Corrosion-resistant
- + Compliant with Deutsche Bahn guidelines



Completely reliable

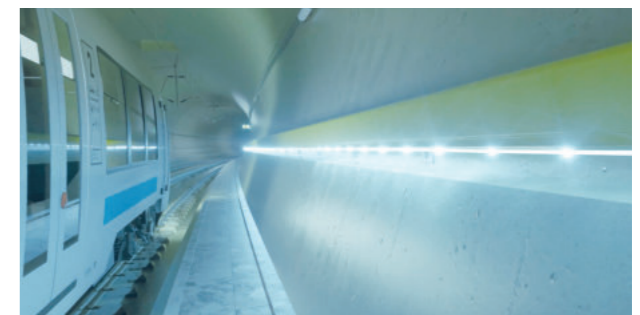
Niedax systems for tunnel construction

With intelligent and functionally tested systems, we ensure maximum safety and comfortable operation in railway tunnels. The highlight of our product range is the proven Handrail System (HRS) made of glass fiber-reinforced plastic, which quickly and safely guides passengers to emergency exits in case of emergency. Fire and corrosion protection, mechanical strength, and low thermal conductivity are just some of the requirements that must meet the highest safety standards. Since all system components are perfectly matched, our HRS can be installed individually. With the Cable Support Troughs (ETWS), cables can also be easily laid in the narrow space between the tunnel wall and the rail vehicle. The framework made of strut profiles is essential for supporting heavy switch cabinets or transformers as substructure for raised floors and cannot be separated from its strengths in this regard. This system is individually adjustable and suitable for large loads.



Cable Support Trough ETWS

- + Rounded edges for cable protection
- + High side walls for secure cable routing



Handrail System HRS

- + Includes emergency lighting
- + Saves lives in case of evacuation
- + In accordance with the technical specification for interoperability TSI
- + Steel frame with C-profiles
- + High load capacity
- + Individually adjustable leveling supports



Steel frame with C-profiles

- + High load capacity
- + Individually adjustable leveling supports



Niedax products inside

Gotthard Tunnel and Ceneri Base Tunnel

For the construction of the Gotthard Tunnel and Ceneri Base Tunnel – two of the world’s largest tunnel projects – Niedax Group has developed solutions that meet the highest safety requirements of tunnel construction.

Safe cable routing in the world’s largest tunnel project

The early involvement of a project partner specialized in cable routing systems was essential for an efficient and safe electrical installation in both tunnel projects. Also in both cases, Niedax was involved from the very beginning – from developing new products and engineering to finding solutions for cable routing and installation. As a family-owned company based in Germany, Niedax has over 100 years of experience in realizing major and specialized projects.

New materials and experience through tradition

In the Gotthard Base Tunnel, around 8,000 meters of stainless-steel cable trays and 60,000 special support structures were installed. In addition to the fire and corrosion-resistant stainless-steel systems, our 120,000 meter Handrail System (HRS) made of glass fiber reinforced plastic for self-rescue is also installed. This tactile and illuminated guidance system quickly and safely guides passengers to the emergency exits in case of fire, smoke, or other dangerous situations.

Specialized products for tunnel construction

Niedax products were also used in the access tunnel to the Gotthard Base Tunnel, the Ceneri Base Tunnel. This consists of two single-track tubes that are about 40 meters apart and are connected to each other every 325 meters by crosscuts. Niedax solutions are used in all crosscuts, whether in the form of cable routing systems specially developed for tunnel construction or substructures for raised floors.



Further reference projects

SNCF, CEVA & Indian Railway

The CEVA railway line

The CEVA railway line connects the city of Geneva with the French town of Annemasse over a length of 16 kilometers. As a large part of the route runs underground, the project required high standards for electrical installations – and this is where the Niedax Group provided support.

The future network of Express Régional Franco-Valdo Genevois and connections with other public transportation options make CEVA a practical and environmentally friendly alternative to cars. It provides a solution to urban traffic problems and significantly improves the quality of life for its future users and all residents of the Geneva basin. The particular challenge was to ensure a secure power supply to the tunnel systems in the event of fire.

Niedax products bring light into the darkness

To ensure this, the Niedax Group supplied approximately 17,000 meters of their handrail system made of glass fiber-reinforced plastic. This material is known for its high temperature and shape stability as well as its strength. As it consists of flame-retardant, self-extinguishing, and halogen-free materials, no toxic gases are released in the event of a fire. This ensures the functional integrity of electronic systems, even in emergency situations, thanks to the solutions provided by the Niedax Group.

Société nationale des chemins de fer français (SNCF)

The French national railway company SNCF (Société nationale des chemins de fer français) is a customer of Niedax Group. Together with Niedax it is not only renovating the existing railway track but also expanding the entire cable management system to cover approximately 18,000 kilometers. This is a crucial and labor-intensive project with an estimated duration of six years and a volume of €24 million. The result will be better mobility, reduced environmental impact, and more comfort for train travelers.

Indian Railways

As the state railway, Indian Railways operates the majority of the country's national rail transport in India. The infrastructure of the country includes approximately 130,000 kilometers of railway tracks, including tunnel systems. Niedax Group has been a supplier for the complex tunnel and metro projects in India for many years. Regardless of whether in Mumbai, Bangalore, Chennai, Kolkata, or Kochi, Niedax products ensure a safe and reliable electrical installation in each of the metro systems. Niedax has developed tailored solutions and products for the tunnel projects of the Indian infrastructure construction company Itron, which exhibit particularly high corrosion and fire resistance. Overall, approximately 550 kilometers of Niedax's cable management systems have been used in India for the expansion and renewal of the electrical installation in subways and tunnels.



Digital revolution in the railway network

The Niedax Group is on board!

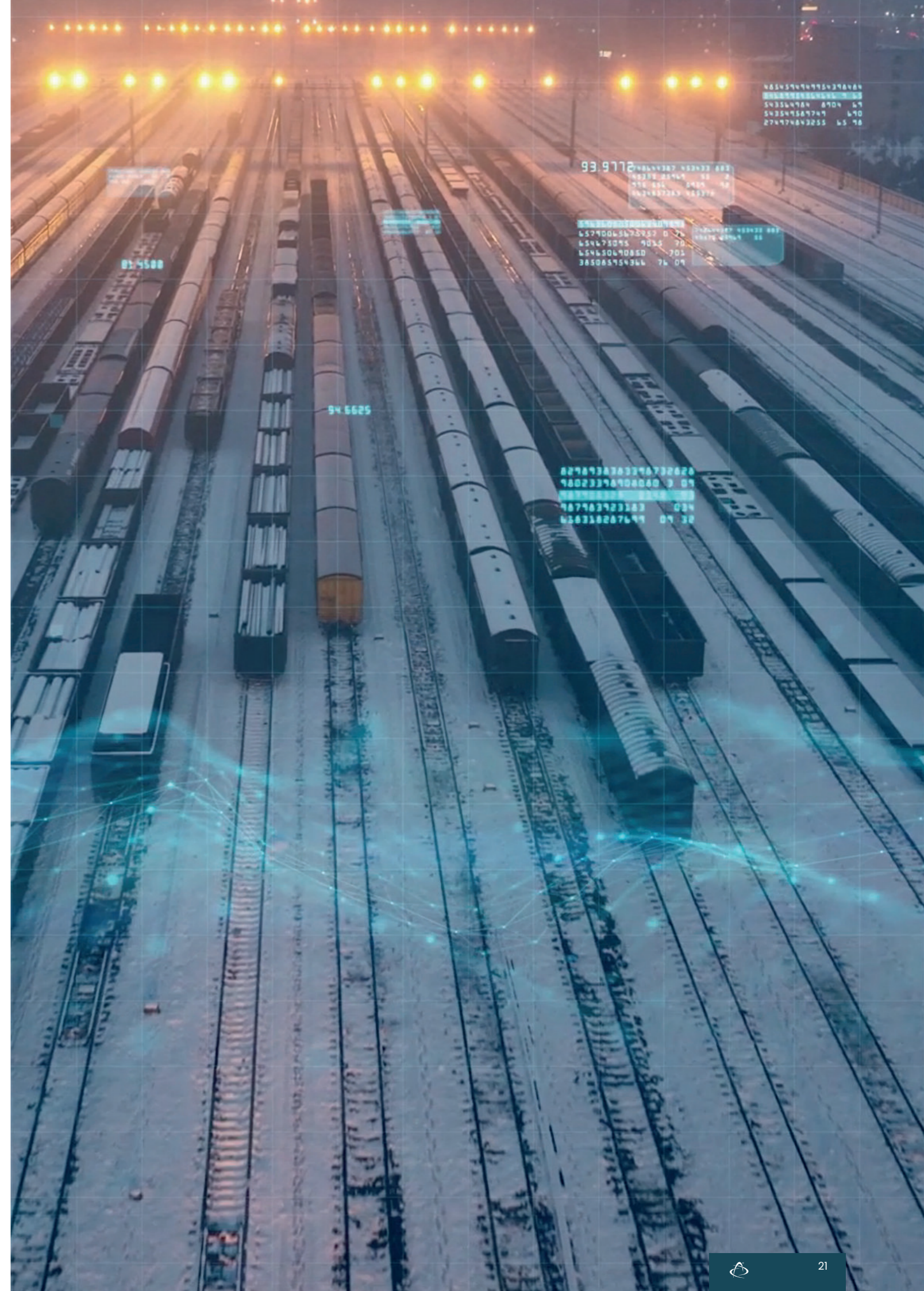
Climate change requires a rethinking of mobility worldwide. The path to a sustainable future: switch to sustainable mobility concepts.

Comprehensive climate protection through a comprehensive mobility transition – this is one of the greatest challenges of our time. To reduce CO2 emissions on a large scale, innovative and efficient technologies are needed. The Niedax Group supports this cause with conviction, including smart solutions for cable routing as part of the digitization of railway traffic.



Everything is fine thanks to EDBK

The Niedax Group is on board with this comprehensive digitalization project from beginning to end: with customized, high-quality product solutions and targeted expertise for the professional installation of fiber optic cables. Our management is constantly in contact with key decision-makers in business and politics to help drive network expansion in a targeted manner. On the product side, our patented swing-in ground channel system also ensures the necessary efficiency and safety here.



Niedax Group

For a safe electrical world

The Niedax Group is one of the leading suppliers of cable management systems worldwide. It includes 65 sales companies in over 30 countries as well as 23 production sites. About 2,450 employees are currently working for Niedax Group. Niedax offers around 50,000 items in the electrical installation sector.

Its products are mainly used in public buildings, tunnels, infrastructure projects, industrial and automotive plants, maritime systems as well as in the energy sector and shipbuilding. The Niedax Group has been family-owned since its founding in 1920.



In budget

Our customers only ever pay exactly what has been agreed on in advance. You can rely on that!



In time

Plan with us - we will realize your project on time. Guaranteed.



Customer-centered

Always in focus: the project-specific requirements of our customers.



„As a strong innovation partner, we drive progress forward even in demanding infrastructure projects. In this way, we ensure a safer and more mobile electric world – now and in the future.“

Bruno Reufels, CEO, Niedax Group



Represented everywhere

No matter where you want to build: We are on site with our experts.



Everything from a single source

In addition to planning, consulting, and design, we also take care of on-site production, packaging and delivery of the products.



100 years of experience

Niedax quality stands for proven quality made by experts.





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