

keep track

2026/27

THE CUSTOMER MAGAZINE OF THE RHOMBERG SERSA RAIL GROUP

Highlights in this edition

16 Holistic Added Value Instead of Isolated Individual Solutions

20 A Secure Foundation for Industrialised Construction

62 Tunnel Refurbishment at the Foot of the Swiss National Park



TAKING A HOLISTIC APPROACH TO RAIL INFRASTRUCTURE

High-performing rail infrastructure is created when planning, construction and maintenance are considered together – with a clear focus on the entire life cycle and with partners who assume responsibility across interfaces. We see this as a decisive success factor for the future of the industry.

Requirements relating to quality, availability and cost-effectiveness are continuously increasing. At the same time, projects are becoming more complex and expectations regarding sustainability are rising. This makes an approach that combines technical expertise, operational experience and long-term thinking all the more important.

For us, PLAN – BUILD – MAINTAIN therefore describes not only a portfolio of services, but also a mindset: viewing infrastructure holistically and developing solutions that work in the long term. Above all, innovation, digitalisation and automation should enable better decisions, more efficient processes and higher quality.

What is particularly important to us is that progress is driven not by technology alone, but by collaboration, trust and partnership. This has been the strength of our Group for many years because the RSRG does more than merely build rail infrastructure – we are shaping the future of more sustainable, digital and collaborative mobility.

Let us rethink infrastructure together!

Hubert Rhomberg
Chairman Owner Board

Koni Schnyder
Member Owner Board



↳ **Koni Schnyder and Hubert Rhomberg**



OUR GOAL IS YOUR SUCCESS!

The demands placed on modern rail infrastructure are constantly increasing: greater capacity utilisation, more frequent services, higher safety standards and, at the same time, the need to ensure maximum availability. This places considerable public, economic and, above all, scheduling pressure on the owners and operators of railway infrastructure – in other words, on you, our readers. It has therefore never been more important for the construction and maintenance of your railway infrastructure to function reliably.

This is precisely our promise to you: guided by the principle of PLAN – BUILD – MAINTAIN, we have made it our goal to deliver your projects with absolute reliability and on schedule. Numerous successes, including the Koralm Tunnel, the Wendlingen–Ulm high-speed railway line and projects in Nuremberg, Copenhagen and Sydney, demonstrate that we achieve this goal.

Our approach is to view your infrastructure project not as a series of individual phases, but as one integrated process. From digital planning and track renewal through to railway systems equipment and condition-based maintenance, our services work seamlessly and safely together. This reduces interfaces, optimises processes and allows decisions to be based on sound data at an early stage.

As a full-service provider, we support you with an integrated range of services covering the entire rail infrastructure life cycle. We deliver clear added value for you alongside greater efficiency during implementation, reliable time and cost structures, as well as the sustainable safeguarding of asset quality. However, it is not only what we do that matters, but above all how we do it. Our collaboration is characterised by partnership, reliability, high safety standards and a clear understanding of your individual requirements. We see it as our long-term responsibility to ensure that your infrastructure functions reliably. On the following pages, we provide an overview of what this means in practice – for us in our day-to-day work and for you in terms of the results.

We hope you enjoy reading this issue!

Garry Thür
CTO

Thomas Bachhofner
CEO

Thomas Mayer
CFO



INTRO & MAIN FOCUS

- 02** Editorial
- 06** The Big Picture. From a Single Source.
- 08** The Southern Line Is Becoming a Reality
- 10** Partnership on Track
- 12** Foundations Laid
- 13** Ready for the Next 80 Years
- 14** V-TRAS Reduces Maintenance Effort by a Factor of Four
- 16** Holistic Added Value Instead of Isolated Individual Solution
- 18** Major Project with Foresight
- 19** Inspect & Act
- 20** A Secure Foundation for Industrialised Construction

03 ***MACHINES***

- 43** Unique on Rail
- 44** Performance for the Metre-Gauge Network
- 46** Major Overhaul as a Sustainable Solution

04 ***PRODUCTS***

- 49** Redefining Track Slab Construction
- 50** More Value from Data
- 51** Shaping Rail Construction. Together. Now.
- 52** Solutions in Steel
- 54** From Feature to Need
- 55** New Innovation Strategy

ONLINE-MAGAZINE



We are delighted to be able to welcome you online again this year. You can find the online edition of our customer magazine at: magazine.rhombert-sersa.com

01

FROM THE COMPANY

- 23** Growth in the North
- 24** Practical Experience Meets Emerging Talent
- 25** Layer by Layer: More Benefits on the Construction Site
- 26** Behind the Scenes
- 26** Drawing Instead of Drilling
- 27** Supporting Slab Track Designers
- 28** Lean as a Success Story
- 29** Sustainability in Operations
- 30** Strong Partners – Strong Solutions
- 32** A Strong Foundation for the Future
- 33** Know-How for the Next Generation
- 34** RSRG awarded ten-year contract by Iarnród Éireann – Irish Rail

02

DIGITALISATION

- 37** Precision from the Air
- 38** From Research to Practical Application
- 40** Q-tainer: Hamburg-Berlin High-Performance Corridor
- 41** Flying Drones Remotely



05

ON SITE

- 57** Lights On for Operations in Cottbus
- 57** Prepared Together for an Emergency
- 58** A Project in a Class of Its Own
- 60** Green Tracks for the Greater Copenhagen Light Rail
- 60** Catenary system installation in Copenhagen
- 61** Corridor Projects from North to South
- 62** Tunnel Refurbishment at the Foot of the Swiss National Park
- 64** Performance on a Grand Scale
- 65** Refurbishment of the Muskau Forest Railway
- 66** Modernisation of the Götzis-Rankweil Line
- 67** Next-Generation Signalling for Ebenfurth
- 68** Major Service Expansion
- 69** Five OTMs Successfully Overhauled
- 70** Rail Systems Reordinated – Lean & Digital
- 71** Engineering Precision on Sydney's New Metro Line

Imprint | Publisher: Rhomberg Sersa Rail Holding GmbH, Mariahilfstrasse 29, 6900 Bregenz/AT, T+43 5574 403 0 | Badenerstrasse 694, 8048 Zürich/CH, T+41 43 32223 23 00, info@rsrg.com, www.rhombergsersa.com; **Photos:** Rhomberg Sersa Rail Group, iStockphoto, ÖBB, 3D-Schmiede; **Responsible for the content:** Christoph Mathis (Head of Group Strategy, Marketing & Business Development), Sarah Blum (Project Management), Torben Nakoinz (Text); **Design:** Manuel Haugke, www.haugke.com; **Paper:** Vivus silk **Disclosure:** In accordance with § 25 Media Law: "keep track" is published once a year in an edition of 4315 copies (AT/CH/D) and 620 copies (AUS/CAN/UK/USA/IRL).

THE BIG PICTURE. FROM A SINGLE SOURCE.

Around 10 years ago, contracts in the rail industry, particularly in Europe, were frequently awarded according to the lowest-bidder principle. The lowest price won. Thanks to changes in procurement law and THE FRAMEWORK PLANS of major infrastructure operators, the best-bidder principle now – fortunately – prevails, with qualitative, social and environmental criteria also taken into account in the evaluation. This has materially improved project quality and strengthened local value creation.



Why not both?

The Rhomberg Sersa Rail Group is already working intensively on the next stage of this development, in which the highest quality and cost-effectiveness form an unbeatable combination. To achieve this, the full-service rail technology provider relies, among other things, on innovative products such as slab track systems and Second Life System SLS®. It is driving forward the digitalisation and automation of railway construction sites and the Group is also involved in alliance projects to unlock further potential through efficient partnerships.

Another important approach is not only to consider and manage the project in all its complexity and throughout its entire service life, but also to provide all services along the value chain from a single source. Plan – Build – Maintain.



THE SOUTHERN LINE IS BECOMING A REALITY

RSRG is playing a major role in Austria: Following the successful fit-out of the Koralm Tunnel, the Group is now taking on the Semmering project.



Gernot Gassner
Managing Director,
Project Business

WHEN ÖBB CELEBRATED THE FIRST OFFICIAL JOURNEY THROUGH THE KORALM TUNNEL IN DECEMBER 2025, REPRESENTATIVES OF RSRG WERE ALSO THERE – ALREADY THINKING AHEAD TO “THEIR” NEXT MAJOR SOUTHERN LINE PROJECT.

With a total length of 470 kilometres, extending from Austria’s northern to its southern border, passing through four federal states and linking three state capitals, ÖBB’s Southern Line is one of the largest and most spectacular infrastructure projects ever undertaken in Austria. As part of the Baltic-Adriatic Corridor, which in the medium term will connect the Baltic Sea with the Mediterranean by land, this impressive construction project will also provide invaluable links to emerging economic regions and major seaports.

ÖBB-Infrastruktur AG is working on more than 100 projects along this corridor to improve mobility for the 3.5 million people living in its catchment area and provide them with even easier and more affordable access to goods from around the world. Two of the largest projects are the Semmering Base Tunnel between Lower Austria and Styria and the Koralm Railway, which connects Graz and Klagenfurt beneath the Koralpe mountain range.



Quelle: © ÖBB



Around 37 million passengers and 22 million tonnes of freight are already transported along the Southern Railway routes every year. In future, the upgraded high-performance railway line will enable them to reach their destinations more quickly and sustainably. Once the new major tunnel enters service, the operational and logistical restrictions associated with journeys across the Semmering will be a thing of the past, and the Semmering will no longer constitute a time-consuming and costly obstacle. The new Koralm Railway route, meanwhile, bypasses the narrow Mur Valley and the steep Neumarkt Pass.

RSRG playing a leading role

The Rhomberg Sersa Rail Group has played and continues to play a critical role in both the Koralm and Semmering Base Tunnels. Together with joint venture partner PORR, the rail technology specialist installed the railway systems and electrical and mechanical equipment in the Koralm Tunnel – at 33 kilometres, the sixth-longest railway tunnel in the world – and ensured that it was ready for operation in time for the timetable change in December 2025. The rail technology experts and partners installed almost 66 kilometres of slab track and were responsible for all civil engineering works through to commissioning.

The joint venture team is currently delivering the same scope of work in the planning and implemen-

tation of the railway systems fit-out for the Semmering Base Tunnel. By the planned commissioning date in December 2029, the partners will have contributed to the timely opening of the line on practically the same scale as at the Koralm Tunnel.

“Winning the contract for the railway systems fit-out and equipment of the Semmering Base Tunnel is a wonderful endorsement of the work we carried out in the Koralm Tunnel,” says Gernot Gassner, Managing Director, Project Business, at the Rhomberg Sersa Rail Group. “Here too, we will once again be delighted to contribute our expertise as a full-service provider and continue to build on the experience gained from numerous successfully completed projects.”

PARTNERSHIP ON TRACK

With alliance contracts, Deutsche Bahn is embracing a new form of collaboration – and Rhomberg Sersa is actively helping to shape it.

AN INTEGRATED TEAM FROM AN EARLY STAGE, A SHARED GOAL AND DECISIONS BASED ON THE “BEST FOR PROJECT” PRINCIPLE: THIS IS PRECISELY WHAT THE RAIL PARTNERSHIP MODEL STANDS FOR. TWO PILOT PROJECTS IN BADEN-WÜRTTEMBERG DEMONSTRATE JUST HOW EFFECTIVE THIS MODEL CAN BE.

Alliance contracting models represent a new approach to delivering complex infrastructure projects. Instead of working under conventional individual contracts, clients, designers and contractors collaborate under a joint multi-party agreement. The focus is not on individual areas of responsibility, but on working towards shared schedule, cost and quality objectives. With its Rail Partnership Model, Deutsche Bahn has specifically adapted this approach to large and demanding rail infrastructure projects. The early involvement of all key parties creates the basis for coordinating construction processes, logistics, line closures and technical solutions from the outset, as well as allowing them to be optimised holistically. The model also sends a strong commercial signal: target costs are defined jointly, while opportunities and risks are shared between the partners. This creates transparency, strengthens trust and is visibly driving cultural change in railway construction.

The Rhomberg Sersa Rail Group is involved in two pilot projects in Baden-Württemberg as part of this forward-looking approach: the Gäubahn North upgrade and the Residenzbahn project.





Sybille Ritzkowsky
Construction Manager,
Project Business



Werner Fahrnberger
Senior Project Manager,
Project Business



B
U
I
L
D

GÄUBAHN NORTH UPGRADE

The Pfaffensteig Tunnel plays a key role in the Gäubahn North upgrade. At approximately 11 kilometres in length, it will be Germany's longest tunnel. It will connect Stuttgart Airport with Böblingen and link the Stuttgart-Zurich route to Stuttgart's new central station. Under the Rail Partnership Model, the planning was advanced in a remarkably short period of time. Following the planning phase from 2023 to 2025, preparatory work for the tunnel excavation has already begun, with commissioning scheduled for 2033. Together with its joint venture partner Swietelsky Bau GesmbH, RSRG is responsible for key elements of the project. This includes the entire track superstructure, comprising slab track and ballasted track, the 50 Hz electrical systems, the mechanical tunnel equipment and the coordinated installation of cables.

RESIDENZBAHN

Deutsche Bahn is also relying on the strength of the Rail Partnership Model for the Residenzbahn project. The project combines measures along the Söllingen-Pforzheim section and at Wilferdingen-Singen and Pforzheim stations in order to remove barriers, increase capacity and avoid several separate construction sites in quick succession. The effectiveness of the alliance model is particularly evident in the planning of the railway bridge over Luitgardstrasse in Pforzheim: a detailed and robust solution was developed within a short period of time, reducing the construction period, traffic disruption and use of resources. The planning phase has been under way since 2025 and is scheduled to continue until 2028, with construction expected to be completed by around 2030. Together with REIF Bauunternehmung GmbH & Co. KG, Rhomberg Sersa is responsible for the transport infrastructure, including earthworks and civil engineering, platforms, track superstructure, roads, paths and public spaces, as well as cable duct construction and drainage.

For RSRG, alliance contracts are far more than simply a new form of contract - they are a powerful means of delivering infrastructure projects collaboratively, safely, efficiently and with a clear focus on the future.

FOUNDATIONS LAID

Cottbus: Bahnhof Süd rebuilt and commissioned.



Lysann Krannig
Project Assistant,
Project Business



Eckhart Lamprecht
Construction Manager
Logistics, Project Business



Marcus Neumann
Electrical Engineering
Subproject Manager,
Project Business

THE REDEVELOPMENT OF BAHNHOF SÜD WAS CARRIED OUT IN CONNECTION WITH THE NEW COTTBUS DEPOT PROJECT. DURING THE CONSTRUCTION OF HALL 1, EXISTING TRACKS HAD TO BE REMOVED. TO COMPENSATE FOR THIS, THE TRACK LAYOUT IN THE SOUTHERN AREA WAS EXPANDED AND ADAPTED TO MEET FUTURE OPERATIONAL REQUIREMENTS.

The extensive infrastructure works were carried out between October 2024 and March 2026. In addition to the expansion of the track layout, the technical equipment and lighting were modernised with around 400 lighting masts installed to improve illumination throughout the entire track area. In addition, 24 kilometres of cable were laid and 24 kilometres of catenary systems were installed for the overhead contact line equipment.

As part of the track construction works, 6,360 metres of track was laid and 230 metres of trafficable BODAN panels installed. Ten buffer stops were installed for safety purposes, and a training facility comprising 450 metres of track was constructed. In addition, 16 points were installed and equipped with point heating systems to ensure safe operation during winter.

The telecommunications infrastructure was also comprehensively renewed: cable diversions, complete telecommunications connections and five EZVA acceptance points were installed to ensure a stable supply. In addition, street lighting was installed for the TVT hall and the logistics area.

The redevelopment lays the foundations for safe, efficient and future-ready railway operations. The successful completion of this milestone therefore represents the achievement of a significant objective to meet future operational requirements.

READY FOR THE NEXT 80 YEARS

Refurbishment of the ventilation shaft in the Hauenstein Base Tunnel: RSRG delivers a technical and logistical tour de force.



Lukas Herburger
Head of Tunnel
Refurbishment,
Swiss Market

AROUND 500 TRAINS PASS THROUGH THE EIGHT-KILOMETRE-LONG HAUSTEIN BASE TUNNEL EVERY DAY. AT THE CENTRE OF THIS KEY ARTERY IN THE SWISS RAIL NETWORK IS A 134-METRE-HIGH VENTILATION SHAFT WITH A DIAMETER OF FIVE METRES. ITS REFURBISHMENT REQUIRES THE HIGHEST LEVELS OF PRECISION AND EXPERIENCE, AS WELL AS A PERFECTLY COORDINATED TEAM.

The comprehensive refurbishment of the imposing ventilation shaft forms part of a CHF €50 million contract to rehabilitate the entire Hauenstein Base Tunnel. It is also the most demanding element of the contract - due to the depth and confined working conditions, the shaft presents a particular technical and logistical challenge.

During this project, a specially constructed crane tower serves as the working platform and is assembled from the bottom upwards using a total of 30 elements. Even before the tower was erected, the entire shaft was equipped with permanent LED lighting and a stable Wi-Fi network. This infrastructure is essential for safe and efficient operations.

Working from the platform, the employees use a demolition robot to progress gradually downwards. Among other tasks, they remove extensive limescale deposits that have accumulated over approximately

100 years. At the same time as the demolition work, a waterproofing membrane is installed over the entire height of the shaft.

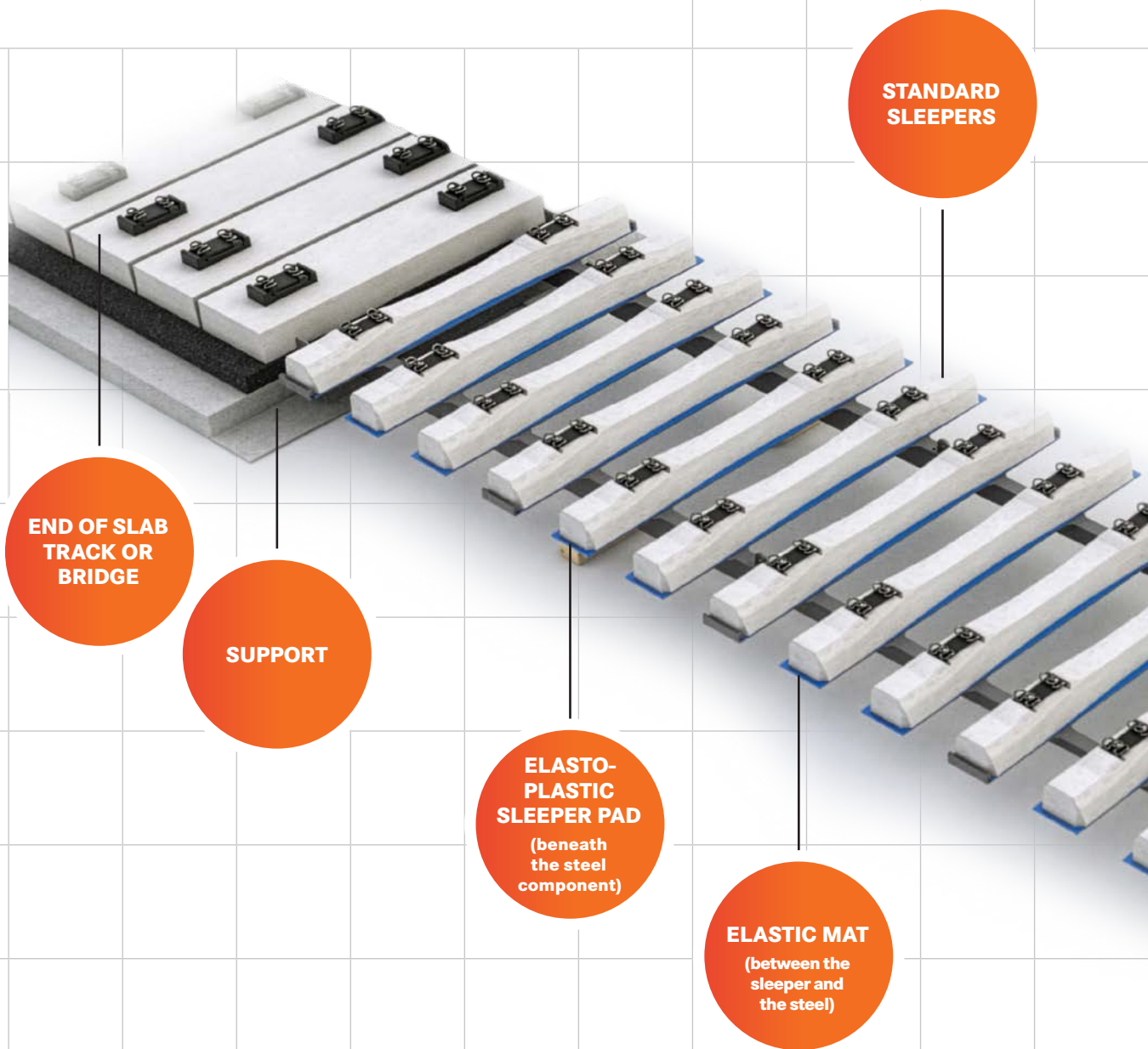
Working around the clock, an inner concrete lining is installed using slipform construction. Around 45 cubic metres of concrete are placed in the shaft each day in a controlled and uniform manner. This demanding interplay of technology, experience and teamwork will ensure that, once the work has been completed, the ventilation shaft remains safe and operational for another 80 years.

Find out more:



V-TRAS REDUCES MAINTENANCE EFFORT BY A FACTOR OF FOUR

The RSRG solution for the critical transition between slab track or bridges and ballasted track dramatically extends maintenance intervals.



M A I N T A I N

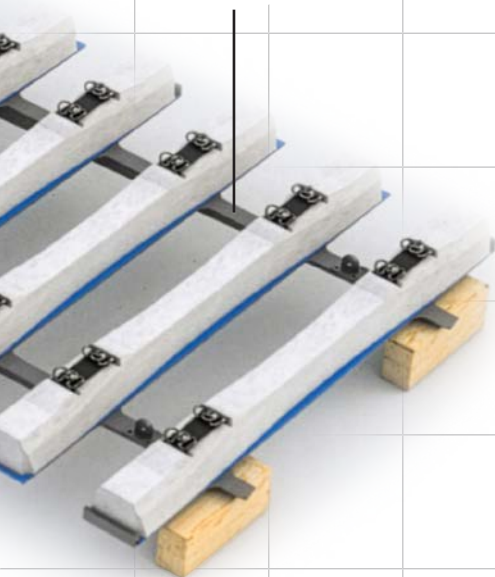
M A I N T A I N

M A I N T A I N



Stefan Vonbun
Head of Superstructure
Products, Project Business

**V-TRAS
MODULE**



AROUND 40 SYSTEMS ALREADY INSTALLED PROVIDE CLEAR EVIDENCE: V-TRAS SIGNIFICANTLY MINIMISES SETTLEMENT IN THE TRACK SUPERSTRUCTURE FOR ALL COMMON SLAB TRACK SYSTEMS. THIS REDUCES MAINTENANCE REQUIREMENTS AND INCREASES THE OPERATIONAL AVAILABILITY OF THE LINE.

Every slab track project involves a challenge that is frequently underestimated. This challenge concerns not the slab track itself, but its terminal point – the transition to ballasted track. At this interface, two track superstructure types with fundamentally different dynamic behaviour meet, and it is precisely these transition zones that develop into particularly sensitive weak points under operational conditions.

The underlying physics are unambiguous – dynamic forces generated by rail traffic, acting in combination with geotechnical or structural boundary conditions, induce settlements within the transition zones, resulting in track geometry defects. If left uncontrolled, deviations between design and actual track geometry can reduce permissible line speed or, in extreme cases, lead to line closures.

For infrastructure managers, this translates into a concentration of maintenance effort over just a few metres with recurring tamping operations at a location where possession costs are particularly high and operational disruption is at its greatest.

The Solution: V-TRAS

The universal transition module V-TRAS, developed by Rhomberg Sersa Rail Group, was conceived as a simple, holistic and sustainable solution for connecting different slab track systems to ballasted track. With approximately 40 installed systems now in service, assessment is no longer confined to the theoretical level – it rests on robust field data. Track geometry measurements from completed installations demonstrate that tamping intervals in the transition zone can be extended by up to 400% compared with a transition not optimised by V-TRAS. For infrastructure managers operating under increasingly constrained maintenance windows, this means fewer possessions, reduced maintenance costs, and a longer uninterrupted service life on a track section that has traditionally absorbed a disproportionately large share of the maintenance budget.

The steadily growing number of applications across different networks confirms the developers' original objective – V-TRAS represents not just an improved transition detail, but a demonstrably optimised maintenance reality.

“The maintenance engineer is completely convinced by V-TRAS and would like to install more of it.”

Customer feedback from England after ten years of V-TRAS in operation.

HOLISTIC ADDED VALUE OF ISOLATED INDIVIDU

Only connected data across all phases unlocks the full potential of digitalisation.

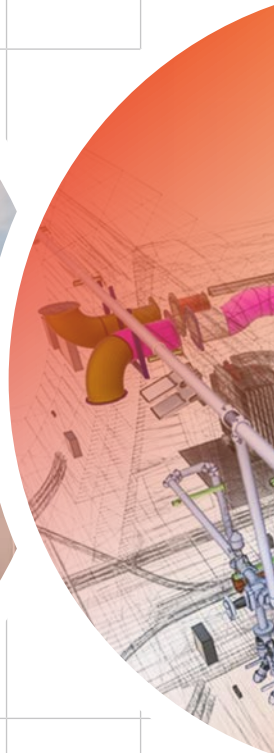


Marcel Nolte
Head of Digital Rail Services,
Swiss Market



Stefan Potocan
Head of Product
Management

P
L
A
N



WITH ITS “DIGITAL RAIL SERVICES” (DRS), THE RHOMBERG SERSA RAIL GROUP AIMS TO HARNESS THE BENEFITS OF DIGITAL TECHNOLOGY THROUGHOUT THE ENTIRE PROJECT LIFE CYCLE IN ORDER TO MAXIMISE CUSTOMER VALUE – INCLUDING THROUGH DIRECT COLLABORATION WITH CUSTOMERS AS A SERVICE PROVIDER.

Mainline railway, public transport and industrial customers already benefit from the immediate added value provided by digital tools for asset capture, planning and delivery, as well as for the operation and maintenance of their infrastructure. This value can be increased further through the combined use of different tools and by leveraging synergies throughout the entire course of a project. However, the full potential of digitalisation is only realised by combining multiple solutions that draw on a shared

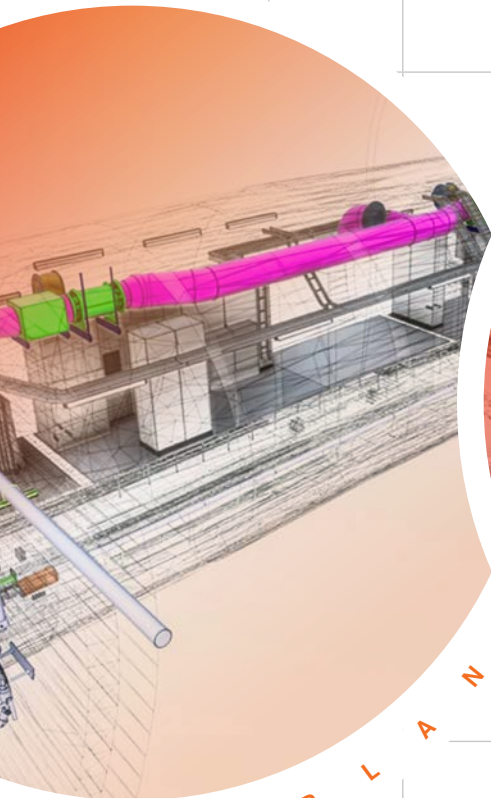
data basis and operate within an integrated process extending beyond the boundaries of conventional project phases.

1+1 equals more than 2

The decisive step in exponentially increasing the value of individual solutions lies in linking data and applications across different phases. The information generated through high-quality asset capture forms the basis for planning and simulation, making both significantly more efficient and effective. What is developed during planning largely determines the quality and efficiency of delivery. And the data captured during delivery provides the basis for subsequent operations. This continuous use of information is precisely the key to greater efficiency, quality and transparency.

One example from the project development phase is precise digital asset capture. At first glance, this may appear to involve addi-

E INSTEAD AL SOLUTION



tional effort. However, its full value becomes evident through improved project communication, a broader understanding of the project and, consequently, greater planning certainty and better-quality decisions. The same applies to model-based planning and construction sequence simulations, whose impact extends far beyond the respective phase and improves future projects.

A more specific example from the delivery phase is provided by drone imagery, which offers valuable insights into construction progress, as does a GIS system such as “Maps of RSRG”, which presents this data clearly. However, it is only through automated construction progress monitoring with the Q-tainer that the two solutions can be linked efficiently, significantly increasing both their value and their acceptance.

Digitalisation therefore means not only digitising processes, but rethinking them – in a connected, integrated and data-driven way. Genuine added value for all stakeholders is only created when information is used across every phase.

This is precisely where DRS comes in: it combines technologies, data and processes into one integrated overall system – unlocking significantly greater potential in economic, qualitative and sustainable terms.

MAJOR PROJECT WITH FORESIGHT



How planning, coordination and cooperation are successfully driving forward the complex Bern West joint venture project.



Dominik Brügger
Head of Construction
and Products, Central
Region, Swiss Market

THE “BERN WEST CAPACITY UPGRADE” IS ONE OF THE MOST SIGNIFICANT INFRASTRUCTURE PROJECTS AT THE BERN RAILWAY HUB. AS PART OF A JOINT VENTURE, RSRG IS DELIVERING A LONG-TERM EXPANSION PROJECT FOR SBB THAT PLACES HIGH DEMANDS ON PREPARATION, ORGANISATION AND COLLABORATION.

Since the project began in autumn 2024, the three joint venture partners – Rhomberg Sersa Rail Group, Frutiger AG and Marti Bern AG – have been planning and implementing the extensive modification and expansion works. Construction is being carried out in several stages and will continue until 2036.

A key milestone was the 2025 summer cluster. This construction phase involved particularly intensive deployment of personnel and machinery and placed high demands on the coordination of all parties involved. Thanks to careful preparation, clearly defined processes and close coordination within the joint venture and with SBB, this phase was completed successfully.

The focus was on detailed planning long before construction work began. During work preparation, specialists from the contractors, construction management, planning, safety and logistics teams worked closely together. Construction sequences, track possessions and the deployment of machinery and personnel were coordinated at an early stage, always taking ongoing railway operations into account.

During the construction phases, dozens of employees work simultaneously in well-coordinated teams, supported by specialised machinery. Regular coordination, clear responsibilities and open communication are crucial to ensuring ongoing quality, safety and adherence to schedules throughout a long-term major project.

Bern West demonstrates impressively that the success of projects of this kind does not begin on the construction site, but in the office, through forward-looking planning, structured collaboration and shared responsibility.

INSPECT & ACT

How RSRG’s points specialists unlock the potential of efficient maintenance.



Robert Faß
Head of Points Services,
Rhomberg Sersa Vossloh

MANY OPERATORS OF RAILWAY FACILITIES – BOTH WITHIN AND OUTSIDE DB REGIO – FOLLOW INSPECTION REGULATIONS THAT ARE TOO STRICT, COSTING THEM MONEY. RSV’S “COMBINED MAINTENANCE” APPROACH PROVIDES THE SOLUTION.

A common weakness in the maintenance of track systems at operating facilities and stabling yards within depot boundaries is the application of incorrect inspection regulations. Inspections are often carried out in accordance with DB InfraGO guidelines that are too stringent, potentially resulting in unnecessary outages. The specialists at RSV, the RSRG joint venture with Vossloh, deliberately apply the correct requirements, thereby ensuring a pre-

cise, efficient and legally compliant assessment of the condition of the facilities.

The specialists also combine this cost-effective approach with a predictive, forward-looking strategy. This means that defects are identified at an early stage, before they develop into more serious damage. This is supported by RSV’s proven “Inspect & Act” approach, which continuously identifies and analyses maintenance potential and addresses it according to urgency. This minimises operational restrictions and consistently prevents downtime.

Numerous DB railway depots, as well as other private and industrial customers, already rely on RSV’s combined maintenance concept. These include all workshops operated by DB Regio’s Central Region, several sites in Baden-Württemberg, and facilities operated by DB Vehicle Maintenance and DB Long-Distance Services. The feedback is clear – customers benefit from increased facility availability, reduced closure periods and clear, reliable cost transparency.

M A I N T A I N

M A I N T A I N



A SECURE FOUNDATION INDUSTRIALISED CON

RSRG impresses with its new
ground shield foundation method.



Ronald Ehrenhöfer
Authorised Signatory, Head of
Engineering & Sales Electrical
Systems, Austrian Market

B
U
I
L
D



d
7
i
u
8

N FOR STRUCTION



AN EFFICIENT SOLUTION FOR MODERN OVERHEAD LINE AND INFRASTRUCTURE PROJECTS: THE INNOVATIVE FOUNDATION PRODUCT ENABLES PRECISE AND RAPID INSTALLATION OF FOUNDATIONS FOR RAILWAY AND NOISE PROTECTION STRUCTURES THAT CAN BE LOADED IMMEDIATELY.

The ground shield foundation method is a vibration-assisted, soil-displacement system for the rapid installation of immediately load-bearing foundations for overhead line systems, noise barriers and other applications. Two ground shields – an upper shield and a second, smaller shield on the guide tube – provide significantly greater resistance to lateral forces and rotation, enabling high moment loads to be safely absorbed. Tests in different soil types demonstrate reproducible load-bearing and deformation behaviour, with minimal impact on the ballast bed.

The method significantly reduces the personnel and machinery required. Installation requires only a road-rail excavator with a vibration unit and two installers. The foundations are installed without excavation or concrete curing and can be loaded immediately. This allows track possessions to be used to optimum effect and significantly increases the number of foundations that can be installed within each time window. Thanks to the compact design, the method can also be used beneath existing overhead lines and in extremely confined conditions.

The range of foundation types – GS Classic and GS 350/400/500 – allows adaptation to different load applications and ground conditions. RSRG's internal load tests confirmed their suitability for coarse and fine-grained soils, while the load-bearing capacity calculations were also validated using Plaxis 3D. With crossed fins, moments of up to 500 kNm can be absorbed, while the GS 500 achieves up to 925 kNm at the serviceability limit state.

Further advantages include low noise emissions of 76–86 dB(A), barely perceptible settlement, a low construction height and complete reversibility. The foundations are 100% recyclable and have a technical service life of at least 60 years in Austria. An additional coating can be applied for more demanding requirements.

Around 2,500 ground shield foundations are already in use in the Netherlands. User trials have been successfully completed in Austria, and further steps in the approval process have already been initiated. The method is also suitable for noise barriers, lighting columns and signal masts. As part of European electrification programmes, the system enables significantly faster implementation. As the foundations can be loaded immediately, the method is particularly suitable for structured and industrialised construction processes.

01

*FROM THE
COMPANY*



GROWTH IN THE NORTH

Strengthening RSRG's presence in the Nordic markets.



Mariusz Kalinowski
Business Development Manager,
Project Business



“With every further step, we are not only expanding our presence but also strengthening our role as a long-term partner in shaping the future of rail in the region.”

Gernot Gassner
General Manager

DNK SINCE ESTABLISHING RHOMBERG SERSA NORDICS IN COPENHAGEN IN 2023, THE AMBITION HAS BEEN CLEAR - TO BE CLOSER TO THE CLIENTS AND TO SUPPORT THE REGION'S GROWING DEMAND FOR SUSTAINABLE RAIL INFRASTRUCTURE.

A key step in this journey was taken in February 2026, when the RSRG acquired and began operating new warehouse facilities in Avedøre Holme, Greater Copenhagen. The site offers 2,500 m² of covered storage space on a 5,000 m² plot, enabling flexible handling of materials ranging from specialised components to complete rail vehicles.

This investment strengthens the operational capabilities of the RSRG in Denmark and supports the core business – efficient project execution. By combining storage and logistics services with RSRG's engineering and construction expertise, the Group can respond faster, plan better, and deliver with greater reliability.

The facilities are also available to partners and clients for short and long-term use, supported by transportation and secure handling services. This creates added value beyond the project scope and reinforces collaboration across the supply chain.

The presence in Copenhagen continues to connect local insight with global expertise from across the Group. This combination enables RSRG to actively contribute to the development of a more efficient, reliable and sustainable rail network across the Nordic region.

With every step, RSRG is not only expanding its footprint but also strengthening its role as a long-term partner for the future of rail in the region.

PRACTICAL EXPERIENCE MEETS EMERGING TALENT

How an internship at RSRG opens up new perspectives for both sides.



Theo Alexander Metzler
Technical Specialist R&D,
Project Business



↳ **Felix-Karl Florian and Elias Mathis visited RSRG's rail technology hall together with their graduating class from HTL Dornbirn.**

“We give young talents an early insight into our working environment, thereby securing expertise for tomorrow, opening up development opportunities and investing specifically in the future of our industry.”

Theo Alexander Metzler
Technical Specialist R&D

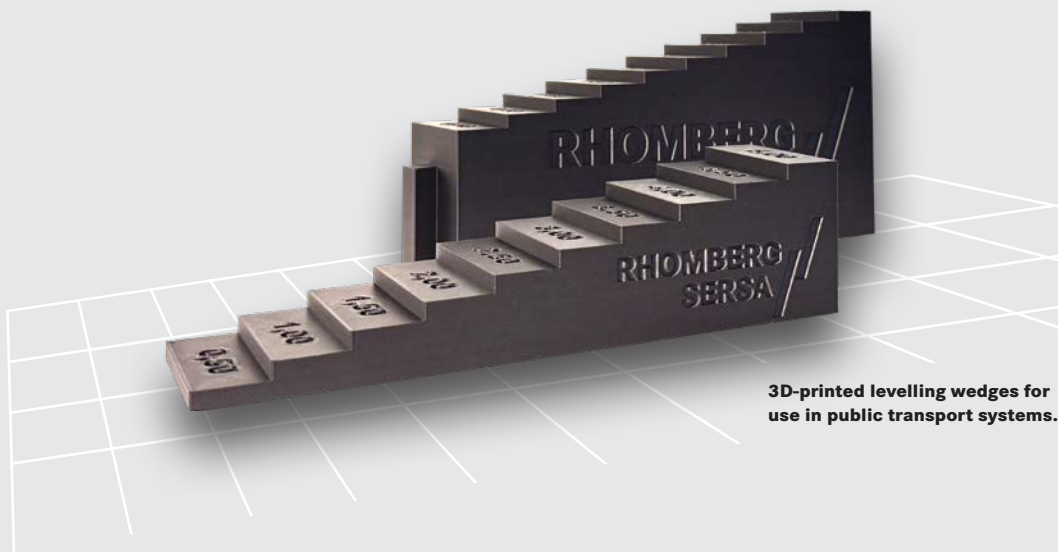
AUT HANDS-ON COLLABORATION WITH SCHOOL PUPILS AND STUDENTS IS NOT ONLY HIGHLY BENEFICIAL FOR THE INTERNS THEMSELVES, THE COMPANY AND ITS CUSTOMERS CAN ALSO BENEFIT. HERE ARE TWO SPECIFIC EXAMPLES.

As part of their diploma thesis at the Higher Technical College (HTL) Dornbirn, Felix-Karl Florian and Elias Mathis developed a modular trailer for RSRG's drilling robot. The aim was to create a compact solution for transporting consumables and spare parts as well as complete surveying equipment, while also providing an integrated workbench for the operating personnel. To put their ideas into practice, the students completed an internship in RSRG's Mechanical Engineering Department (MTA) in Dornbirn, where they further developed their theoretical concepts together with the project team. The project was completed in April 2026 and aims to produce complete manufacturing drawings for potential future production. Felix-Karl Florian also supports the MTA team as a student employee, working six hours per week.

Felix Haberl's career path also demonstrates the added value of supporting emerging talent. Following an internship, he joined the company as a student employee and has since worked in programming, automation and BIM modelling. He is currently developing the IFC Tamer project together with colleagues, which involves automated processes for enriching and comparing BIM models. One particular highlight is a BIM viewer he developed himself, which allows the models to be visualised directly and makes the project less dependent on existing applications.

LAYER BY LAYER: MORE BENEFITS ON THE CONSTRUCTION SITE

3D printing in railway technology.



**3D-printed levelling wedges for
use in public transport systems.**



Boris Cergic
Project Manager
Robotics Division,
Project Business

THE LAYER-BY-LAYER PRODUCTION OF COMPONENTS FROM DIGITAL 3D CAD DATA OPENS UP NEW POSSIBILITIES IN RAILWAY TECHNOLOGY – PARTICULARLY WHERE STANDARD SOLUTIONS REACH THEIR LIMITS. THE RHOMBERG SERSA RAIL GROUP USES 3D PRINTING TO PROVIDE COMPONENTS QUICKLY, PRECISELY AND COST-EFFECTIVELY – READY FOR DIRECT USE IN PROJECTS.

Functional components such as brackets, fixtures and bespoke solutions for overhead line construction, surveying and robotics are produced using 3D printing. The benefits for customers include significantly shorter response times for specific requirements, faster component availability and solutions tailored precisely to the situation on the respective construction site.

The technology demonstrates its particular strengths in the production of prototypes and small quantities, as modifications can

be implemented at short notice and tested directly. This increases flexibility within the construction process, supports continuous optimisation throughout the project and enables rapid responses.

Additive manufacturing also offers tangible benefits in terms of resource efficiency, as surplus materials can be repurposed and used in new applications. For example, new shelving is being produced from leftover sections of overhead line cantilevers, joined together using additively manufactured connecting elements.

By combining 3D printing, new materials and complementary technologies such as 3D scanning, the Rhomberg Sersa Rail Group is continuously developing its applications. The aim is to provide customers with suitable solutions more quickly and to make innovation effective precisely where it is needed – on the construction site.

1

BEHIND THE SCENES /

How RSRG teams work closely together for the benefit of customers – two examples.



Hannes Mathis
Project Manager R&D,
Project Business

DEU WHAT CUSTOMERS OFTEN DO NOT SEE: CONSTRUCTION SITES ARE ALL ABOUT TEAMWORK. COOPERATION AND FLEXIBILITY ARE ESSENTIAL TO ENSURE THAT A CONTRACT IS COMPLETED SMOOTHLY AND TO THE CLIENT'S SATISFACTION.

In the first example, the equipment originally planned for the “Flamatt-Bümlpliz Süd Asset Renewal” project could not be used due to a necessary last-minute change of plan. Instead, RSRG colleagues from the Mechanical Engineering Department in Dornbirn successfully converted the “White Giant” road-rail gantry crane, which was originally designed for laying five-metre-long concrete track support slabs, to enable it to lay concrete sleepers.

Although this had been considered and discussed several times before, the required lifting beam did not yet exist, nor had the method ever been tested in practice. Nevertheless, with the support of colleagues from the branches in Wels and St. Veit in Austria, the Swiss depot in Schwarzenbach and the logistics teams responsible for the two major Koralm Tunnel and Cottbus projects, the complete machinery setup was finalised just two days before the planned deployment. Thanks to the excellent cooperation between everyone involved on site, combined with a high degree of flexibility and ingenuity, approximately 2,000 metres of track were ultimately laid safely, on schedule and to everyone's satisfaction.

The second example demonstrates that six weeks can sometimes feel like a luxury. Contrary to forecasts that the substrate would consist of unreinforced concrete, it quickly became clear during the NWC Cottbus project that the vast majority of the more than 6,000 boreholes to be drilled would encounter reinforcement and that the selected method would therefore not achieve the desired result.

Thanks to acceleration measures taken by colleagues on the Nuremberg construction site, the quadruple core drilling machine in use there was made available and, less than a week later, transferred to the NWC Cottbus project following an overhaul and minor modifications. This kept the loss of time to a minimum.

2

DRAWING INSTEAD OF DRILLING /

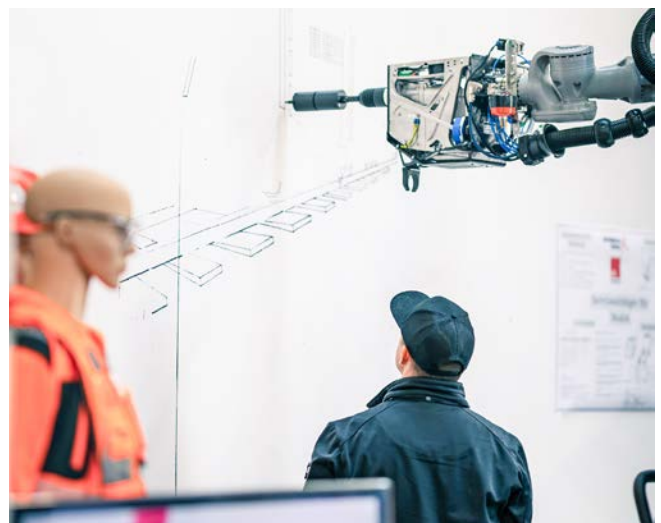
A tongue-in-cheek application of RSRG's mobile construction robot.



Boris Cergic
Project Manager Robotics Division,
Project Business

AUT MANY MYTHS SURROUND THE FUTURISTIC BAUBOT ROBOT FROM THE RHOMBERG SERSA RAIL GROUP AS ONLY A FEW OF THE GROUP'S CUSTOMERS HAVE SO FAR SEEN IT IN ACTION ON THEIR CONSTRUCTION SITES. TWO SITES WHERE THE DEVICE WORKED WERE IN THE KORALM AND SEMMERING BASE TUNNELS, WHERE IT WAS USED TO DRILL THE HOLES REQUIRED TO INSTALL THE HANDRAILS.

However, those responsible at RSRG boosted its visibility at the company's 2025 autumn festival in Dornbirn. Visitors to the event were able to experience the robot live for the first time – albeit in a surprising role as it was working an artist. Some immediately asked about the missing drill. Had the DRILLING robot project failed? Of course not! Behind the scenes, the team is working intensively on developing the system further for real construction-site applications. However, drilling noise would hardly have enhanced the festive atmosphere. The Baubot was therefore fitted with a 3D-printed pen holder and a few marker pens and, following software adjustments, produced a stylised image of a tamping machine on the wall. Although not entirely serious, this application demonstrates the system's versatility and leaves one question open – What's next for Baubot?

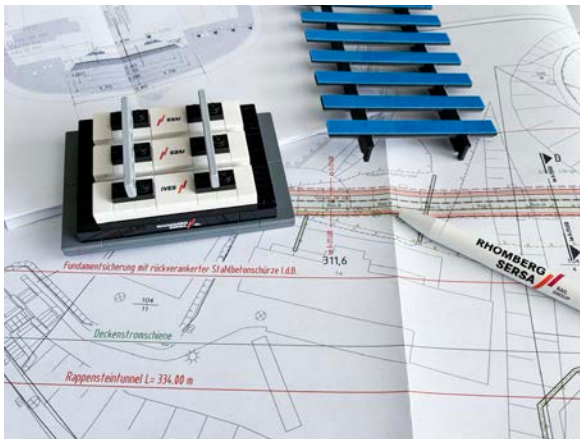


SUPPORTING SLAB TRACK DESIGNERS

Early Project Involvement as a Key Success Factor to bring New Solutions to the Market.



Stefan Vonbun
Head of Superstructure
Products, Project Business



AUT **ALREADY ESTABLISHED TRACK SOLUTIONS HAVE IT EASY: THEY'RE WELL KNOWN AND THEREFORE ARE REGULARLY TENDERED. NEW SOLUTIONS HAVE TO BE INTRODUCED WITH INCREASED EFFORT.**

Already established track solutions have it easy: they're known, their performance is documented, and tender specifications are written around their features.

Introducing a new track system into the market is not simply a matter of building a better product. The barriers are structural. Procurement processes in rail infrastructure are typically specification-driven: if a system's technical characteristics aren't reflected in the tender documents from the outset, it will struggle to compete – regardless of its merits. For RSRG's IVES slab track system and V-TRAS transition module, navigating this landscape has meant engaging at a fundamentally earlier stage of the project lifecycle than a traditional contractor role would require.

When RSRG's slab track specialists enter the conversation during the design and planning phase – well before procurement begins – the technical dialogue shifts. It is about helping designers understand what is actually possible and why, and how a newer system compares to established alternatives. RSRG's products can genuinely drive long-term performance, sustainability and reduce lifecycle costs and thus offer clear benefits over established solutions.

Designers gain access not only to application knowledge that textbooks and datasheets alone cannot provide, but also to the practical experience of the executing side. Early dialogue between planners and contractors can unlock substantial creativity – from structural design and construction logistics to the overall concept – and often reveals optimization potential that would otherwise remain hidden until much later.

New solutions need advocates. Early involvement turns that advocacy into a structured, transparent process – one that serves infrastructure owners, designers, and the broader goal of bringing genuinely innovative technology into track.



“The best rail solutions emerge when design meets delivery early. That is when innovation becomes buildable.”

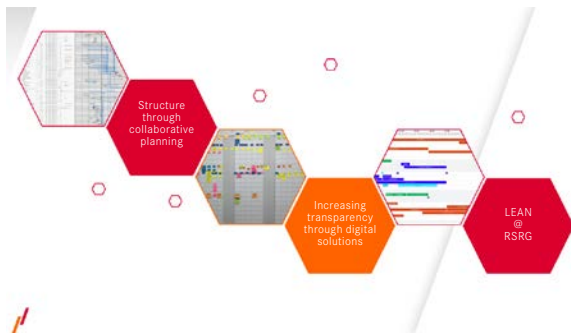
Rudolf Felsner
FCP Fritsch, Chiari & Partner ZT GmbH

LEAN AS A SUCCESS STORY

How structured implementation transforms railway projects.



Fabian Wedl
Expert LEAN,
Processes & Simulations,
Project Business



WHAT BEGAN AS A PILOT PROJECT JUST A FEW YEARS AGO HAS NOW DEVELOPED INTO A GENUINE SUCCESS STORY: THE INTRODUCTION OF LEAN METHODS IN RSRG PROJECTS IS CHANGING NOT ONLY PROCESSES, BUT ALSO MINDSETS – TO THE BENEFIT OF CUSTOMERS.

Lean Construction is an approach aimed at making construction projects more stable, predictable and efficient. All parties involved coordinate their schedules and activities jointly, ensuring that processes are planned smoothly, information is communicated clearly and resources are used effectively. At its core is a clear structure that creates transparency, strengthens accountability and empowers teams to solve challenges together.

The process always begins with a thorough analysis of the existing processes. Bottlenecks, waiting times and interface issues are identified. In many cases, those involved become aware of challenges at this early stage, enabling them to respond more quickly. Building on this, all parties work together with their teams to develop tailored Lean standards. These form the backbone of day-to-day work: from takt-based construction processes and Last Planner methods to visual management tools.

A consistent approach is crucial to success. Each implementation follows a clearly defined sequence – training, application, reflection and continuous improvement. In particular, structured meeting processes and the clear visualisation of workflows deliver measurable results. Challenges are no longer postponed but resolved directly where they become visible – within the project team on site. This means they can be solved together and transparently.

The results speak for themselves, delivering more stable processes, reliable schedules and significantly better collaboration between planning, construction and logistics.

Lean not only creates efficiency, but also fosters a new shared understanding of quality. Experience to date proves that with structure, the courage to embrace change and a strong team, Lean becomes a genuine success story.

SUSTAINABILITY IN OPERATIONS

Concrete measures for more sustainable buildings, vehicles and track construction machinery.



Stefanie Wetli
Facility Management,
Swiss Market



CHE THE OPERATION OF BUILDINGS AND TRACK CONSTRUCTION MACHINERY OFFERS THE GREATEST LEVERAGE FOR SUSTAINABILITY. THIS IS PRECISELY WHERE RSRG IS TAKING TARGETED ACTION AND IT RECORDED TANGIBLE PROGRESS LAST YEAR.

A key step was operating track construction machinery with 80% HVO (Hydrotreated Vegetable Oil). This enabled RSRG in Switzerland to significantly reduce fossil diesel consumption directly during operation, without requiring any technical modifications to the machinery.

At the same time, those responsible continued to make sites more sustainable. Photovoltaic systems installed on the roofs of several workshops generate electricity that is used directly on site wherever possible. Ten electric vehicle charging stations are now available for passenger cars at the Effretikon site. An intelligent load management system controls and optimises energy consumption and prevents peak loads. Consumption in the workshop and offices is prioritised, while electric vehicles are only authorised to charge when there is a surplus of photovoltaic electricity.

Around 10% of the vehicles in the Swiss fleet are already electric. For example, the company uses an electric delivery van for regular courier journeys. Employees also receive financial support for expanding the charging infrastructure at their homes.

This creates practical solutions that work in day-to-day operations and gradually reduce the Group's emissions. This journey will continue with the expansion of the electric vehicle fleet and the installation of charging infrastructure at additional sites the next steps for RSRG in Switzerland.

#railtozero
Find out more
about environmental
protection and
sustainability at the
Rhomborg Sersa
Rail Group here:





STRONG *PARTNERS* STRONG SOLUTIONS

Combined expertise for RSRG customers.

DEU BY COMBINING THEIR STRENGTHS, AT THE END OF LAST YEAR THE TRACK CONSTRUCTION COMPANY EMERAN BRAUN GMBH & CO KG AND THE RHOMBERG SERSA RAIL GROUP (RSRG) SENT A CLEAR SIGNAL FOR THE FUTURE. TOGETHER, THEIR STRONG NETWORK AND EXTENSIVE EXPERTISE CREATE TANGIBLE ADDED VALUE FOR THEIR CUSTOMERS. EMERAN BRAUN RECENTLY COMPLETED A GENERATIONAL TRANSITION IN ITS MANAGEMENT. THE EDITORIAL TEAM SPOKE WITH THE NEW PARTNER ABOUT THE COMPANY'S DEVELOPMENT, THE COLLABORATION AND THE PROSPECTS FOR THE RAIL INDUSTRY.

YOUR COMPANY CAN LOOK BACK ON AN IMPRESSIVE TRADITION. THE GENERATIONAL TRANSITION MARKS THE BEGINNING OF A NEW CHAPTER. WHAT OPPORTUNITIES DO YOU SEE IN THIS, AND WHAT PRIORITIES WILL THE NEXT GENERATION SET?

Hans Emeran Braun The company's almost 100-year tradition is of course a source of pride, but our focus is firmly on the future. The next generation is taking on responsibility and bringing in new perspectives, while I continue to provide support. In this way, we combine fresh impetus with proven experience within the company.

Maximilian Braun Emeran Braun will continue to focus on its core areas of expertise. These encompass all activities relating to conventional track construction, points construction and civil engineering.

HOW DO YOU EXPERIENCE THE COLLABORATION WITH THE RSRG - AND WHAT MAKES IT SPECIAL?

Hans Emeran Braun The collaboration is straightforward and pragmatic. Our focused, constructive yet informal way of working together enables solutions that we could not achieve alone, while our cultural affinity makes the collaboration easier as well.

THE CONNECTION BETWEEN RSRG AND EMERAN BRAUN OPENS UP NEW POSSIBILITIES. WHAT SPECIFIC ADDED VALUE DOES THE PARTNERSHIP OFFER YOUR CUSTOMERS?

Maximilian Braun As services relating to the track are becoming increasingly extensive and complex, many projects can now only be delivered through partnerships. Together, we will be able to cover a broader spectrum of rail construction projects in the future.

THE RAIL INDUSTRY IS CHANGING. WHAT POSITIVE IMPETUS ARE YOU CURRENTLY SEEING - PARTICULARLY AS A RESULT OF INVESTMENT BY THE RAILWAY AND THE FEDERAL GOVERNMENT?

Hans Emeran Braun One drives the other and investment by the railway and the federal government is accelerating change in the industry. Anyone who does not keep pace with this change will be left behind and will no longer be able to deliver the required performance or achieve their own success.

LOOKING AHEAD: HOW WILL THE RAIL INDUSTRY DEVELOP, AND WHAT OPPORTUNITIES WILL THIS CREATE FOR YOUR COMPANY AND YOUR CUSTOMERS?

Maximilian Braun The rail construction industry will remain an attractive market in future. Public tenders are increasingly becoming larger and more long-term. The advantage for us and our customers is that resources can be focused and pooled on projects over a longer period.

THANK YOU VERY MUCH FOR THE CONVERSATION, THE CANDID INSIGHTS AND THE EXCITING PERSPECTIVES. YOUR COMMENTS SHOW HOW PARTNERSHIP-BASED COLLABORATION CAN CREATE GENUINE ADDED VALUE FOR CUSTOMERS IN A COMPLEX MARKET ENVIRONMENT. WE LOOK FORWARD TO CONTINUING OUR COLLABORATION AND TO JOINTLY PROVIDING OUR CUSTOMERS WITH COMPREHENSIVE SERVICES AND PRACTICAL SOLUTIONS THAT GIVE THEM THE BEST POSSIBLE SUPPORT IN THEIR PROJECTS IN FUTURE.



↳ From left: Hans Emeran Braun, Maximilian Braun, MA

A STRONG FOUNDATION FOR THE FUTURE

Investments in
sustainable performance.



Thomas Bachhofner
CEO of the Rhomberg Sersa Rail Group

AUT DEU CHE THE RSRG IS SETTING THE COURSE FOR TOMORROW AND INVESTING AROUND EUR 60 MILLION IN ITS LOCATIONS ACROSS THE DACH REGION. IN DOING SO, IT IS MAKING A CLEAR COMMITMENT TO QUALITY, SUSTAINABILITY, SAFETY AND CUSTOMER PROXIMITY WHILE CREATING MODERN, EFFICIENT INFRASTRUCTURE. THREE EXAMPLES:

A future-focused project is currently taking shape in Spremberg, Germany – by constructing a new hall, the RSRG is creating additional capacity and responding to growing customer demand for maintenance and sustainable major overhauls of track construction machines. At the same time, a modern office building is being built, while the removal of the existing structures will create more space for storage and production. Construction began in spring 2026. Completion of the hall is planned for spring 2027, with the office building to follow in the autumn.

The RSRG is also sending a strong signal for growth and future viability in Wels, Austria. The ground-breaking ceremony at the end of March marked the start of the site expansion, which from autumn 2027 will provide new space for component repair and refurbishment, parts production and spare-parts storage. This is a targeted development of the maintenance business, with the aim of offering

maintenance customers the highest quality and best possible service. The new building will be complemented by maintenance bays for road-rail excavators and additional office space.

In Switzerland, maintenance, inspection and repair work for track construction machines, locomotives and other infrastructure vehicles will in future be consolidated in Landquart. Starting in autumn 2026, a maintenance centre for standard-gauge and metre-gauge vehicles is being built there over a period of around 18 months. It will comprise a three-track workshop hall, a combined washing and workshop hall, areas for component reconditioning, a warehouse, an electrical workshop and office space. Customers will benefit from higher vehicle availability, shorter downtimes and consistently high maintenance quality.

“These investments are deliberate decisions and underscore the consistent further development of our decentralised structures close to our customers, which are a cornerstone of the Rhomberg Sersa Rail Group’s success today and will remain so in the future.”

KNOW-HOW FOR THE NEXT GENERATION

BahnWege seminars - on the path to becoming an expert.



Dagmar Daniel
Head of Seminars,
Rhombert Sersa Vossloh



Franziska Bösch
E-Learning and Development,
Rhombert Sersa Vossloh



DEU THE BEST NEWS AT THE OUTSET - ANYONE CAN DO IT. THE BAHNWEGE SEMINARS OFFERED BY RHOMBERG SERSA VOSSLOH (RSV) PROVIDE YOUNG PROFESSIONALS WITH EXCELLENT INITIAL AND FURTHER TRAINING OPPORTUNITIES FOR A SUCCESSFUL CAREER IN THE RAIL INDUSTRY.

Many companies face the challenge of finding young professionals so that they can continue to operate successfully in the market well into the future. For the generational transition to succeed, new employees must be well prepared for their tasks and supported in building the specialist knowledge they need.

The BahnWege seminars provide support through a wide range of programmes. For RSV as the provider, it is important to meet participants at their current level of knowledge and to build up expertise progressively in both theory and practice. In addition to purely informative training courses that convey basic or specialist knowledge, the role-specific training programmes with examinations are particularly important, as they qualify participants to carry out professional activities independently.

The path to becoming a points technology specialist

The entry-level qualification on the path to becoming a points technology specialist is successful completion of the role-specific training programme for points fitters, which covers points technology in general and point locking technology. This is followed by specialist training as a track fitter, focusing on points repair, and as a signalling fitter, focusing on signalling and control technology. Anyone who additionally completes the role-specific training programme for points inspectors becomes a genuine all-rounder in all matters relating to points - a points technology specialist.

Even after the training courses have been completed, those responsible do not leave their customers on their own as regular FIT seminars provide information on new developments and refresh specialist knowledge.

The effectiveness of this concept is also confirmed by many satisfied customers: "The role-specific training programmes for switch fitters and switch mechanics were an important step in my career. I found the practical training days particularly valuable, as they allowed me to put the theoretical knowledge into practice myself." (G. Dietrich, Dyckerhoff GmbH)

RSRG AWARDED TEN-YEAR

Iarnród Éireann - Irish Rail (IÉ) has awarded a major contract to Rhomberg Sersa Rail Group Ireland following a competitive tender process.

IRL THE CONTRACT IS FOR EIGHT YEARS WITH THE OPTION TO IÉ TO EXTEND FOR A FURTHER TWO YEARS. THE CONTRACT IS FOR THE OPERATION AND MAINTENANCE OF THE IÉ FLEET OF RAIL BOUND ON TRACK MACHINES (OTMS) WHICH ARE ESSENTIAL FOR THE ONGOING MAINTENANCE OF THE NATIONAL RAIL NETWORK.

The fleet of 19 machines – some of which are currently going through the commissioning process – carry out a range of works including tamping, ballast cleaning and regulating.

"We are delighted to continue our working relationship with Rhomberg Sersa," said Cathal Mangan, Chief Civil Engineer, Director - Infrastructure Manager (designate) IÉ.

"This was a very competitive tender process as the ongoing maintenance of our network is critical to both safety and the successful delivery of passenger and freight services.

"While we have a major ongoing programme of capital works, our existing network is critical for so many of the traveling public and ongoing maintenance ensures our services continue to run on schedule."

Billy Stamp, Managing Director – Ireland – with the Rhomberg Sersa Rail Group, said he is delighted to continue the strong working relationship with the IÉ team.



↳ Left to right: Cathal Mangan, Chief Civil Engineer, Director - Infrastructure Manager (designate) IÉ, Hubert Rhomberg, Chairman Owner Board RSRG, and Éamonn Ballance, Director - Infrastructure Manager IÉ.

"We very much work in partnership with the Irish Rail engineers and front-line Permanent Way staff through adopting a collaborative approach," he said. "We look forward to continuing to work together with Irish Rail to deliver vital track maintenance work across the network."

As the rail network in Ireland is over a century old, ongoing maintenance is essential to ensure the safe and timely running of services.

CONTRACT

BY IARNRÓD ÉIREANN – IRISH RAIL



“We look forward to continuing to work together with Irish Rail to deliver vital track maintenance work across the network.”

Billy Stamp
Managing Director Ireland,
RSRG

The new contract was opened to public tender in 2025, and after a competitive process involving a number of international companies, it was awarded to Rhomberg Sersa Rail Group.

The contract covers the existing OTM fleet which is owned by IÉ, as well as machines which are currently going through the commissioning process.

The new machines are a mix of OTMs – which will replace the older machines in the fleet – as well as specialist machines such as the Techne Kirow Crane.

As part of the new contract, Rhomberg Sersa will also carry out the heavy maintenance of all the machines. These deep overhauls prolong their working life and optimise performance and reliability.

Billy Stamp added: “The Rhomberg Sersa Rail Group is very much a family company with family values and a long term perspective. We believe our culture fits well with that of Irish Rail and this is a critical element of our success.”

The RSRG Ireland team – which totals 70 staff – works mainly at night and on weekends on the network in order to minimise passenger disruption.

In 2019 Rhomberg Sersa was awarded a five-year contract to operate and maintain the then 14 machines which are owned by IÉ and an option to extend this contract by two years to 2026 was exercised.

02

DIGITALISATION

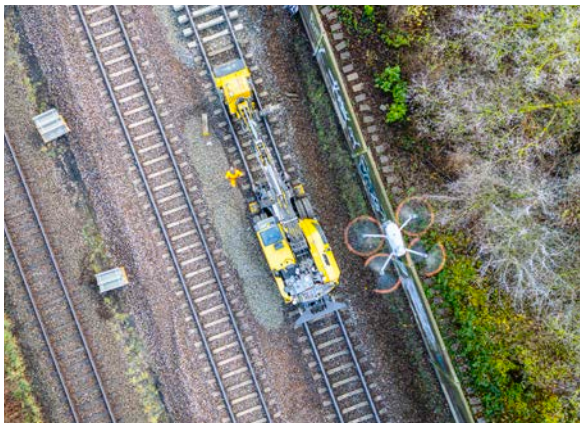


PRECISION FROM THE AIR

Drone flights support every stage - from costing to invoicing and from planning to delivery.



Lukas Döhring
Digital Construction Site,
German Market



“The use of drones provides our customers with an end-to-end, precise and transparent data foundation, enhancing efficiency, safety and cost-effectiveness throughout the entire construction process.”

Lukas Döhring
Civil Engineer, Digital Construction Site

DEU UNCREWED AERIAL VEHICLES PROVIDE DECISIVE ADDED VALUE FOR EFFICIENT AND TRANSPARENT CONSTRUCTION PROCESSES AND ARE USED IN A WIDE RANGE OF RSRG PROJECTS. THEY SUPPORT THE ENTIRE LIFE CYCLE OF CONSTRUCTION PROJECTS.

Operating a larger surveying drone over critical infrastructure, in populated areas or above uninvolved people requires an operating permit. Since the end of last year, the RSRG has also held this permit for the German market - a milestone for the efficient delivery of rail projects in Germany.

Even before a project begins, the RSRG makes use of the advantages offered by drones. High-resolution photographs and videos document the existing condition of the construction area. Distances and areas can also be surveyed, providing a reliable basis for costing. By recording local conditions precisely, customers benefit from efficiently planned processes and accurately calculated quotations.

During the construction phase, orthophotos are generated and uploaded to SitePlan. They form the basis for digital surveying as well as the documentation and monitoring of construction progress. Drone flights also take place between individual work steps to record the condition precisely. This enables well-founded decisions and ensures efficient coordination among everyone involved in the project.

A particular benefit lies in the considerably simplified yet highly accurate invoicing process. Orthophotos taken before, during and after the construction phase enable exact and traceable quantity determination for areas, lengths and item counts. Measurements are generated directly from SitePlan and accepted as recognised evidence. Aerial images can also be used for clear project documentation and marketing.

The RSRG now also offers drone surveys to external customers, applying its expertise specifically to projects for railway infrastructure managers, public transport operators, planning offices and industrial customers.

FROM RESEARCH TO PRACTICAL APPLICATION

ARTEMIS: advanced AI-based monitoring of railway infrastructure.



Dimitrios Kyritsis
Product Owner R&D
(DRS), Swiss Market



Marcel Nolte
Head of Digital Rail Services,
Swiss Market

CHE ARTEMIS IS AN INNOVATIVE SYSTEM CURRENTLY BEING DEVELOPED AS PART OF AN INNOSUISSE PROJECT IN COLLABORATION WITH THE EASTERN SWITZERLAND UNIVERSITY OF APPLIED SCIENCES (OST) AND IS ALREADY IN USE IN A PRE-PRODUCTION ENVIRONMENT.

The name ARTEMIS stands for Automatic InfRasTructurE Monitoring System. The platform combines deep-learning algorithms with advanced data processing to detect railway infrastructure objects automatically from image data. At the same time, it determines their exact position through geolocation and captures important additional information such as text or numbers.

How ARTEMIS works

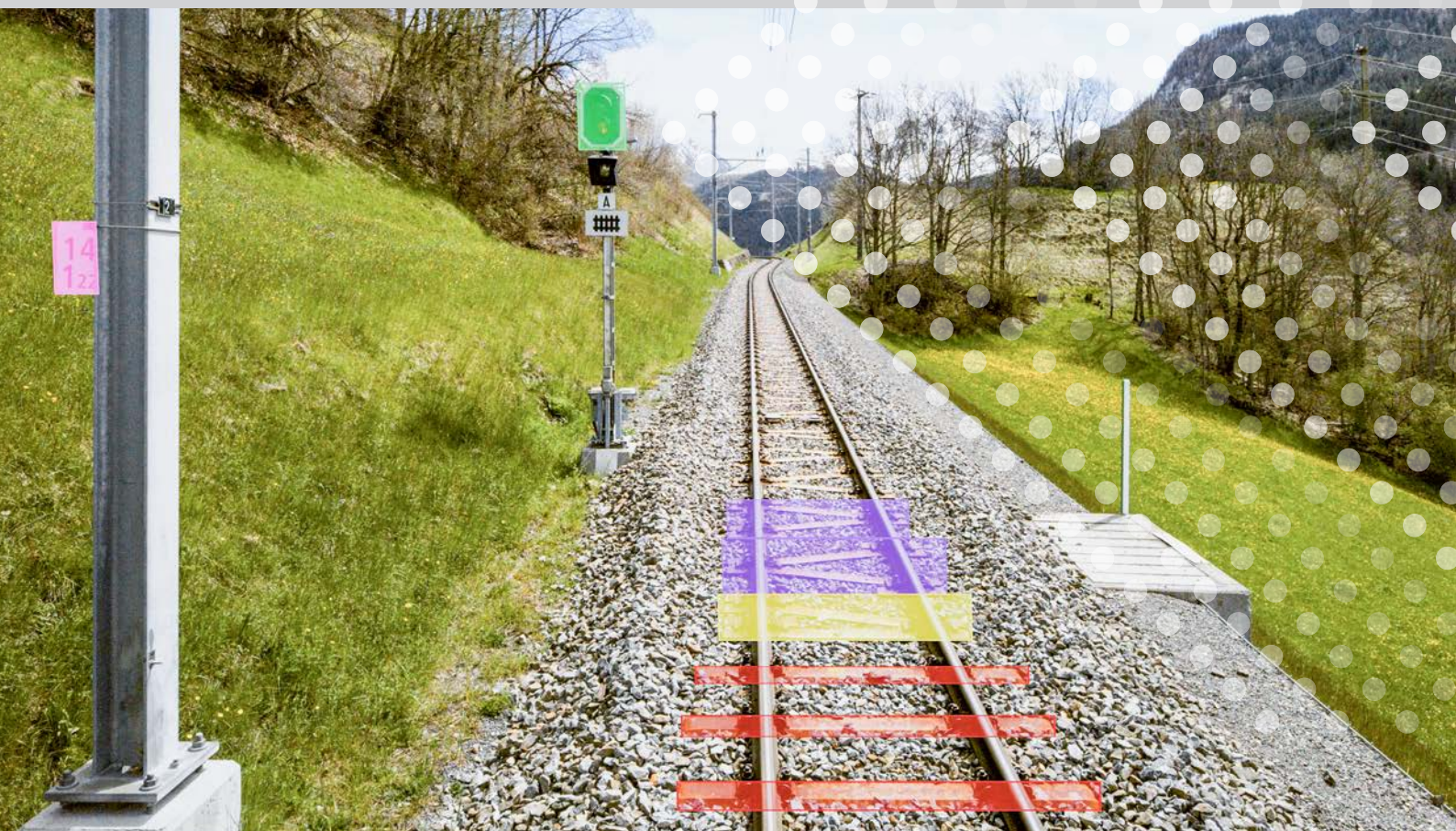
The detected objects and their condition are stored in a database. This can support initial asset inventorying or, through comparison with existing datasets, identify changes in the infrastructure over time. It enables more efficient management of railway infrastructure throughout its entire life cycle. ARTEMIS also supports the automated creation of precise “as-is” models of the recorded railway environment.

The database currently contains around 100 different types of railway infrastructure objects, including sleepers, signals, overhead line masts, balises and safety-relevant infrastructure elements. Ongoing development aims to improve detection accuracy and positioning quality while reducing the manual effort required to train new object categories.

First deployment with RhB

In line with an agile development approach, ARTEMIS has already been successfully tested in practice. Together with the Rhaetian Railway (RhB), a detection campaign was carried out on the section between Landquart and Klosters. Image data from the 2025 measurement campaign conducted by the FahrwegDiagnose joint venture was used to detect and locate nine object categories, including signals and balises.

A total of 14,700 images were analysed. At least one relevant object was detected in 1,375 images, allowing around 1,200 unique infrastructure elements along the route to be successfully identified and georeferenced.



Impact on operations

The results of this project support the updating of asset databases and create a reliable basis for monitoring and maintenance. ARTEMIS enables systematic digitalisation and continuous condition assessment of railway infrastructure, thereby helping to improve safety across the entire network.

Automated detection reduces the need for manual inspections and work in the track area, lowering operational effort while improving occupational safety. Thanks to the high temporal resolution, conditions can be reassessed regularly and changes can be identified at an early stage.

By comparing newly detected objects with existing data, the system ensures consistent validation and high data quality. At the

same time, it creates the basis for predictive maintenance by enabling targeted measures and reducing unnecessary interventions - without compromising reliability.

Outlook

The findings from the project and user feedback feed directly into further development. In the long term, ARTEMIS has the potential to enable scalable and intelligent monitoring of railway infrastructure through the use of artificial intelligence..

Q-TAINER: HAMBURG-BERLIN HIGH-PERFORMANCE CORRIDOR

How drones and AI create transparency across DB InfraGO's major project.



Tim Bacher
Q-tainer Project Manager,
Project Business



Clemens Oberschmied
Product Owner,
Project Business



Stefan Potocan
Head of Product
Management



↳ Q-tainer

Provider: RSRG

Functions: AI-supported analysis of drone, sensor and construction site data, planned-versus-actual comparison for the early detection of deviations, automated construction progress tracking

Further information: www.rhomberg-sersa.com/en/services/q-tainer

DEU THE RSRG'S Q-TAINER DEMONSTRATES THAT DIGITAL SOLUTIONS AND REAL-TIME DATA IN CONSTRUCTION DELIVERY ARE NO LONGER A VISION OF THE FUTURE. IT ALSO ANSWERS THE QUESTION OF WHAT MODERN CONSTRUCTION-SITE MONITORING CAN ALREADY ACHIEVE TODAY.

What happens when state-of-the-art technology meets one of Germany's largest construction sites? Q-tainer provides the answer. From August 2025, it was deployed on a five-kilometre construction section near Aumühle as part of the comprehensive upgrade of the Hamburg-Berlin high-performance corridor. The result was clear evidence of what digital construction-site monitoring can achieve.

The Q-tainer forms the digital heart of the construction site. Sensors measure noise levels, vibrations, dust levels and weather data in real time. All information is brought together centrally, evaluated automatically and made available to the project team at all times in a clearly structured dashboard. The system is complemented by GPS trackers on construction machinery and a drone controlled remotely from the office, which can fly over and document the entire construction section every day if required.

The images captured by the drone are analysed automatically using artificial intelligence. Based on the identified components, the system promptly calculates the current actual progress and compares it with the planned target curve. No manual measurement, no surprises. Everyone involved in the project works with the same information and can make data-based decisions.

The added value became particularly clear in January 2026. The Q-tainer's integrated weather stations recorded the weeks-long winter weather in northern Germany, which temporarily brought concreting and excavation work to a complete standstill. The Q-tainer identified the resulting delays precisely, providing not only transparency for the current project but also valuable data for planning future construction projects. This is one of the system's greatest strengths as the database grows with every project, creating the basis for even more precise forecasts, risk assessments and scheduling for future projects.

FLYING DRONES REMOTELY

New RSRG technology enables aerial robots to be controlled from a desk.



Lisa-Maria Kessler
Reality Capture Team Leader,
Project Business



↳ **Drone box**
Functions: Connecting the drone and pilot over long distances for construction site documentation
Pilot project: Hamburg-Büchen

DEU THE REALITY CAPTURE TEAM WITHIN DIGITAL RAIL SERVICES HAS ACHIEVED MAJOR SUCCESS WITH ITS FIRST REMOTE-DRONE-FLIGHT PILOT PROJECT, GIVING CUSTOMERS EVEN GREATER FLEXIBILITY.

At the heart of the innovation is the drone box. Mounted on the RSRG's mobile edge computing centre, the Q-tainer, it connects the aerial robot and the pilot over long distances. Drone flights can be carried out at whatever frequency the construction site requires. It is also possible to respond optimally to short-notice weather changes and adjust the flight time accordingly.

The technical implementation of the drone flights was put through its paces in a pilot project near Hamburg-Büchen. Before the drone takes off from its box, the weather and wind conditions are analysed precisely. The airspace is also checked to ensure that it is clear. The highest level of concentration is required throughout the flight - birds, helicopters, cranes and other objects that could collide with the drone must be monitored continuously.

The construction site was documented without any problems. Projects of this kind require a lead time as the technical component must be prepared and the ground control points set and surveyed. The legal and administrative component is considerably more involved, however. For the first project, those responsible brought in an external company to obtain the flight permit as quickly as possible. The aim now is to build this capability directly within the Reality Capture team, making the team more independent and even more flexible for customers.

Regular drone surveys enable construction-site documentation and progress monitoring that can be used optimally for logistics during the construction process and later for invoicing. As is standard, the drone data is provided via a platform accessible by computer or mobile app, and everyone involved on the construction site benefits from the data.

03

MACHINES





UNIQUE ON RAIL

As a road-rail machine, the Mecalac 12 MTX delivers maximum flexibility.



Steffen Hauck
Head of MTA,
German Market



Torsten Schmidt
Dresden Site Manager /
Authorised Signatory,
German Market

DEU A UNIQUE MACHINE EXPANDS THE POSSIBILITIES FOR PUBLIC TRANSPORT, INDUSTRIAL RAILWAY AND LIGHT RAILWAY CONSTRUCTION PROJECTS AND CREATES GENUINE ADDED VALUE FOR OUR CUSTOMERS.

With the MECALAC 12 MTX mobile excavator loader, the RSRG is setting new standards specifically for urban track construction sites. Even in its standard configuration, the compact base machine impresses with an outstanding weight-to-lifting-capacity ratio and a modern, comfortable workplace. Thanks to the unique kinematics of its boom and its minimal rear swing radius, the excavator loader enables safe working even on the tightest inner-city construction sites.

To make these advantages available on the track, the machine was developed further with experienced partners to create an innovative road-rail machine. The result is a unique Mecalac with an integrated hydrostatically driven rail undercarriage. It can be adapted flexibly to different track gauges and can therefore be used in different tram networks as well as on industrial and light railways.

The lower structure gauge is designed so that stops can be passed without difficulty. In the tight track curves common in public transport networks, the normally locked articulated steering can be released and

articulated by three degrees, allowing even small radii to be negotiated safely.

The first of its kind machine also offers maximum versatility in terms of attachments. Available equipment includes a rotator, pallet forks, grabs with 300 mm and 600 mm wide shells, a backhoe bucket, a swiveling ditch-cleaning bucket, a load hook, a hydraulic breaker and a boom extension.

The development and implementation of this project took around a year and is a strong example of partnership-based collaboration between the dealer, a specialist machine manufacturer and the RSRG's specialists. The result is a tailored solution precisely matched to the requirements of customers in public transport and industry. They benefit from greater flexibility, higher efficiency and innovative technology that makes a real difference on the construction site.



PERFORMANCE FOR THE METRE-GAUGE NETWORK

The Metric Rail Grinder - a modern solution for cost-effective rail grinding on metre-gauge networks.



René Frey
Head of Technical
Service,
Swiss Market



Aleksandar Bogosavljevic
Head of Welding Technology
Development & Quality,
Swiss Market

CHE HIGH-PERFORMANCE RAIL INFRASTRUCTURE REQUIRES SUSTAINABLE MAINTENANCE. THE RSRG PROVIDES END-TO-END SUPPORT, FROM ANALYSIS THROUGH TO THE LONG-TERM SAFEGUARDING OF TRACK QUALITY.

A new development

The quality of the rail surface and gauge corners is a key factor in reducing noise, improving ride comfort and extending the service life of rails and track. Corrugation in particular - wave-like irregularities on the rail head running across the direction of travel - causes high dynamic loads and increased noise emissions. Against this background, the Metric Rail Grinder was developed as a compact, high-performance solution for cost-effective rail grinding on metre-gauge networks.

Efficient operation

The aim of the project was to develop a road-rail work machine that could be used efficiently within short track possessions. Modern road-rail technology keeps on-tracking and off-tracking times to a minimum. The Metric Rail Grinder is designed for tramways, conventional railways and mountain railways with gradients of up to 60% and can work on both Vignole and grooved rails. In addition to removing rust layers and mill scale from newly laid rails, the machine eliminates corrugation and surface defects and enables targeted correction of the rail-head profile through precise grinding. A high-performance dust extraction system ensures clean and safe working.

“The Metric Rail Grinder combines precise measurement technology, high flexibility and cost-effective, efficient rail grinding in a compact machine. For the first time, this provides infrastructure operators with a grinding solution developed specifically for the requirements of metre-gauge networks.”

Aleksandar Bogosavljevic
Head of Welding Technology Development & Quality



Road-rail truck with separate grinding module

The carrier vehicle is a modified compact road-rail lorry with a metre-gauge rail undercarriage. It combines high mobility with sufficient energy supply for the grinding units and can be placed on track quickly at medium-sized level crossings – a significant advantage, particularly in inner-city tram networks. Due to the limited installation space, a separate grinding module was designed and carried piggyback on the lorry. Loading and unloading take place directly on the track, with the lorry serving as the traction vehicle, energy source and control unit.

Ten grinding stations

At the heart of the system is a two-axle grinding module with ten grinding stations and integrated high-performance dust extraction. Six cup-grinding units work the running surfaces on both rails, supplemented by disc-grinding stations for the gauge corners and flap-wheel grinding units for fine finishing. Based on the measured transverse profile, the grinding motors are positioned automatically at the optimum angle, while the contact pressure is controlled to ensure efficient material removal without thermally overloading the rail.

Laser systems and sensors

An integrated measuring system records both the transverse and longitudinal rail profiles in real time. High-frequency laser systems and sensors reveal corrugation, waves and profile deviations, allowing the operator to assess the grinding result immediately and optimise it in a targeted manner.

The Metric Rail Grinder therefore closes the gap between large rail-grinding trains and hand-guided machines. It offers transport operators an economical and flexible solution for the sustainable maintenance of rail infrastructure, the reduction of noise emissions and a significant extension of rail service life.



MAJOR OVERHAUL AS A SUSTAINABLE SOLUTION

Modernising track construction machines increases availability, quality, safety and service life.



Hans-Jürgen Steinbrecher
Head of Rail Vehicle
Maintenance,
Austrian Market



Tim Wellschmidt
Head of Maintenance & Trading,
IWE, Authorised Signatory,
German Market

AUT DEU **WHETHER AS PART OF A PLANNED MODERNISATION OR FOLLOWING A DAMAGE EVENT, THE RSRG OFFERS MAJOR OVERHAULS THAT RENEW MACHINES SUSTAINABLY AND ADAPT THEM TO CURRENT REQUIREMENTS. TWO PRACTICAL PROJECTS ILLUSTRATE THIS APPROACH.**

In Spremberg, a high-speed ballast profiling machine (SSP) underwent a comprehensive major overhaul to safeguard its performance over the long term. The focus was on modernisation, reliability and high technical availability – decisive factors in the day-to-day construction-site work of the RSRG’s customers.

As part of the work, all operating units, including ploughs, brush box, silo, brush holders and loading equipment, were completely reconditioned. The cab was fully renewed, including new interior paneling, control desks and windows, significantly improving ergonomics and safety for the operating personnel.

A key element was the complete rewiring of the vehicle. The control system was also replaced to enable more precise processes and reduce susceptibility to faults. At the same time, all hydraulic components were renewed and the hose and pipework replaced. Finally, the vehicle received a new paint finish in the modern Rhomberg Sersa design.

The overhaul took around 10 months. One particular challenge was the close coordination with specialist bodies in order to implement all modernisations without triggering a change to the vehicle’s approval. Thanks to this careful clarification, the SSP has been technically up to date and fully operational since summer 2026.

The repair of an MTW 10 motorised tower wagon at the Wels workshop began from a very different starting point – the vehicle had been severely damaged by fire. However, a comprehensive overhaul and restoration returned the MTW 10 to an operational condition.

The machine was completely dismantled, sand-blasted, painted and then rebuilt. A large proportion of the components were renewed or reconditioned to as-new condition. The vehicle was also adapted to current standards, particularly in the area of fire protection. All pipework was renewed, and the loading crane mounted on the MTW underwent a complete overhaul. A dedicated assembly fixture was manufactured specifically for this work.

The electrical system was also completely renewed. A particular challenge was that some cables and wiring could no longer be traced because of the fire damage. They had to be reconstructed painstakingly using the available documentation and comparisons with machines of the same design. In addition, some spare parts for the



2000 model year were no longer available and had to be custom-manufactured.

Thanks to extensive specialist expertise and precise implementation, the project was completed successfully within 11 months. The MTW 10 has been back in service since the beginning of March 2026.

Both projects demonstrate that major overhauls are an economical and sustainable solution - both for modernisation and for restoration following damage events. Compared with purchasing a new machine, customers also benefit from lower investment costs, shorter delivery times and reduced training requirements.

04

PRODUCTS

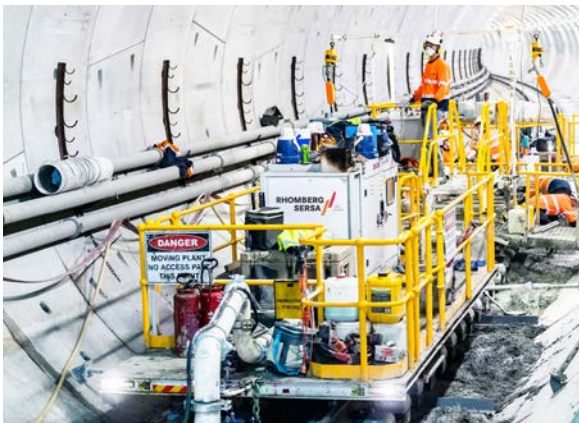


REDEFINING TRACK SLAB CONSTRUCTION

How RSRG's in-house Concrete Placement Unit evolved from Cross River Rail to power delivery on SSTOM



Amber Bellamy
Communication and
Culture Manager,
Australian Market



➤ Concrete Placement Unit (CPU)

Provider: RSRG

Functions: safe and efficient placement and finishing of concrete in confined, linear work areas

Variants: Tunnel CPU and Outdoor CPU

AUS RSRG'S IN-HOUSE DESIGNED AND BUILT TUNNEL CONCRETE PLACEMENT UNITS (CPU) WERE DEVELOPED TO SOLVE A LONG-STANDING CHALLENGE IN TRACK SLAB CONSTRUCTION; HOW TO SAFELY AND EFFICIENTLY PLACE AND FINISH CONCRETE IN CONSTRAINED LINEAR WORK FRONTS.

Traditionally, track slab construction relies heavily on manual processes, with workers standing on sleepers or temporary platforms while manoeuvring concrete delivery pipes and hoses and finishing concrete in conventional positions. This method does not adequately manage inherent safety risks and makes it difficult to achieve consistent quality and production rates.

In response, RSRG built the tunnel CPU's specifically for the Cross River Rail project in Australia. Designed as a self-propelled multi-carriage system, the CPU enables continuous concrete placement through an integrated distribution system, reducing the need for manual handling of concrete pipes. Low-level, full-width working platforms provide a stable and ergonomic environment, improving safety, reducing fatigue and enhancing productivity. The result is a step-change in quality and efficiency, with the tunnel CPU proving its value as a reliable, high-performance solution in tunnel or constrained environments.

Building on this success, RSRG adapted the concept for the Sydney Metro - Western Sydney Airport project.

This next evolution, the "outdoor CPU," was designed for open-air environments where variable weather affects track slab construction. Maintaining the same principles of safety, efficiency and quality, it extends the benefits of the original design beyond tunnels, enabling consistent delivery across a wider range of conditions while providing an optimised working environment.

Through continuous refinement, RSRG has addressed a critical logistical challenge in the rail industry and set a new benchmark for track slab construction.

MORE VALUE FROM DATA

Multi-Source Infrastructure Management creates a clear basis for decision-making.



Yorick Teeuwen
Railway Infrastructure Engineer /
Data Manager, Swiss Market



↳ Multi-Source Infrastructure Management

Basis: georeferenced track model as a shared data foundation

Function: integration of measurement, infrastructure, operational and maintenance data

Benefit: clear decision-making basis for targeted and predictive maintenance

CHE ONLY THE COMBINATION OF MEASUREMENT DATA, A ROUTE MODEL AND MAINTENANCE HISTORY REVEALS WHERE ACTION IS GENUINELY REQUIRED AND WHERE TARGETED MEASURES ARE EFFECTIVE.

A practical example illustrates the importance of this. Measurement data had been collected for years on a heavily used network. The measures derived from it remained isolated, and at times even large-scale renewals were under consideration.

Only when the data was linked with the route model and maintenance history did a differentiated overall picture emerge. It showed that certain measures had been successful but had not been continued consistently. Instead, lower-cost alternatives had been used without any directly visible, lasting improvement. The challenge was solvable, but this only became apparent when the data was brought together so the full picture was visible. The decisive factor is therefore not individual measurement, but its context.

The Track Model as the Central Foundation

Added value is created by combining different data sources along a common georeferenced track model. This provides the basis for assigning all information unambiguously.

This is where the Rhomberg Sersa Rail Group comes in: it creates the foundation on which data can be compared and used – an often-underestimated step with a major impact.

On this basis, condition data, master data and maintenance data can be consolidated and compared in the IRISSYS® analytics platform. Individual measurements are transformed into a consistent overall picture and therefore a robust basis for well-founded decisions. The more systematically the data is linked, the clearer the development becomes. Users can then move away from describing the current condition and towards assessing future developments and planning predictive maintenance. The database being created today is the prerequisite for this.

Conclusion

Better decisions are made when data is linked and placed in the right context. This is precisely where modern infrastructure management begins – and precisely where the Rhomberg Sersa Rail Group delivers added value.

SHAPING RAIL CONSTRUCTION. TOGETHER. NOW.

How the Rhomberg Sersa Rail Group brings innovation directly into live projects.



Hannes Mathis
Project Manager R&D,
Project Business



Dimitrios Kyritsis
Product Owner R&D,
Swiss Market



Sebastian Kühnle
BIM Manager,
Project Business



Torsten Bode
Head of Group Products
and Innovation



WHAT MATTERS TO CUSTOMERS IS WHAT REACHES THE PROJECT - PREDICTABLE PROCESSES, TRANSPARENT COLLABORATION, SAFE CONSTRUCTION SITES AND ECONOMIC RESULTS. THIS IS EXACTLY WHAT THE RHOMBERG SERSA RAIL GROUP (RSRG) IS WORKING ON - NOT AT SOME POINT IN THE FUTURE, BUT TODAY.

Through the DB mindbox ZIB programme, the RSRG works together with Deutsche Bahn AG and leading construction companies to bring innovation to where it creates added value: live rail construction projects.

As part of the Zukunftsinitiative Bahnbau (ZIB - Future Initiative for Rail Construction), the RSRG is involved in four trial concepts addressing key levers in rail construction under the current 100-day programme. valoon.chat is being tested for the digital creation of site diaries directly from construction-site communication. In parallel, the RSRG is working on deeper data integration between contractors and Deutsche Bahn AG for greater transparency, fewer frictional losses and more partnership-based project delivery.

With TrackBot, nomantrackwork aims to set new standards in track construction as robotics automates repetitive activities, improves occupational safety and increases both productivity and execution quality.

With enablemyteam, the RSRG uses AI to detect construction elements automatically in laser scans and point clouds. This accelerates BIM model creation and establishes a robust digital foundation across the entire project life cycle.

codefy addresses the growing complexity of tenders, bids and contracts. AI-supported document creation opens up efficiency potential from the bidding phase through to contract management.

DB mindbox provides the framework for testing these solutions jointly with partners under real-world conditions. For the RSRG, this is a logical step. Together with experts, it is driving innovation in rail construction forward in a targeted manner with a clear focus on benefits for the project and the client.

SOLUTIONS IN STEEL

Comprehensive steel expertise from Landquart.

RIBBED BASEPLATES



RAILWAY INFRASTRUCTURE



Viktor Dinchev
Head of DONATSCH -
Solutions in Steel, Swiss Market

CHE DONATSCH SÖHNE AG HAS BEEN PART OF THE RHOMBERG SERSA RAIL GROUP SINCE 2020, ADDING THE MANUFACTURE OF STEEL PRODUCTS TO THE GROUP'S PORTFOLIO OF SERVICES. SINCE APRIL 2026, THESE CAPABILITIES HAVE BEEN POOLED EVEN MORE SYSTEMATICALLY AND CONTINUED AT THE LANDQUART SITE UNDER THE DONATSCH - SOLUTIONS IN STEEL BRAND. THIS IS A GOOD OPPORTUNITY TO TAKE A CLOSER LOOK AT THE PORTFOLIO.

1. Ribbed Baseplates

The variety of rail fastening systems is enormous. Swiss Federal Railways alone uses more than 1,000 different versions of ribbed baseplates - and most of them have already been produced in Landquart at some point. In the past, many ribbed baseplates were punched, drilled and milled on systems developed in-house,

an impressive innovation for the time. Today, they are often machined from solid material on powerful modern CNC-controlled milling machines. Many versions are also welded or otherwise processed by highly qualified welders in Landquart.

2. Railway Infrastructure

DONATSCH - Solutions in Steel also offers a broad product range for railway infrastructure. The portfolio extends from complete signal gantries with spans of up to 30 metres and overhead line masts to support and load-bearing yokes, compression struts, suspended columns, cantilever tubes, buffer stops and smaller components such as anchor plates and mast clamps. To achieve the longest possible service life, these components are hot-dip galvanised or duplex-coated and delivered to the construction site on schedule.

RAIL VEHICLES



3. Rail Vehicles

In addition to certifications for quality management in accordance with EN ISO 9001, environmental management in accordance with EN ISO 14001, occupational health and safety management in accordance with ISO 45001 and compliance management in accordance with ISO 37301, the Landquart site holds three welding certifications: for fusion welding in accordance with ISO 3834-2, for the welding of structural steelwork in accordance with EN 1090 and in accordance with EN 15085-2 CL 1, the highest requirement level for welding rail vehicles.

This enables comprehensive repair and fabrication services to be offered for both the company's own track construction machines and third-party customers. These range from minor repairs to cracking and corrosion, straightening, replacing and reinforcing components, through to converting complete railway wagons for special requirements. Thanks to the direct rail connection, this work can be carried out in the company's own halls.

SPECIAL PRODUCTS



4. Special Products

In keeping with the DONATSCH - Solutions in Steel name, products for specific applications are also manufactured outside the railway sector. The spectrum ranges from avalanche protection structures and borehole support tubes to a comprehensive line of fencing products and the construction of complete systems. Some of these products were developed in-house, while others are produced to customer requirements.

Conclusion

The next time you travel by train, let your eyes wander - left and right, up and down. Wherever steel components or assemblies are used along the railway infrastructure, there is a good chance that they were manufactured in Landquart.

FROM FEATURE TO NEED

Why customer focus makes the difference in the railway environment.



➤ **Successful railway projects require the interaction of numerous experts and specialised services. Bringing these together efficiently and aligning them consistently with customer benefit is a central objective of the RSRG's Product and Sales team.**

HOW CAN GENUINE ADDED VALUE BE CREATED IN THE HIGHLY REGULATED RAILWAY ENVIRONMENT? A CHANGE OF PERSPECTIVE TOWARDS SPECIFIC CUSTOMER NEEDS PROVIDES A CLEAR ANSWER.

In railway projects, the framework is often clearly defined. Public tenders specify both the problem and the solution in advance, and the contract is usually awarded to the most economically advantageous bidder. Construction companies have little scope to make additional value visible, for example through alternative bids or special proposals.

At the same time, many players in the railway environment - public transport operators as well as mainline railways - face challenges that extend beyond individual projects. These include increasing requirements for availability and reliability, limited personnel and material resources, high cost pressure and a desire for greater predictability, transparency and robust decision-making foundations.

This is precisely where the Rhomberg Sersa Rail Group applies a broader perspective by moving away from feature-oriented pres-

entation of individual solutions and towards a consistent focus on actual customer needs. The decisive question is not which functions a product offers, but which problem it solves sustainably.

The RSRG is testing this approach together with customers in a pilot project in the German market. The focus is on real questions arising from operations and maintenance. Solutions are not developed in isolation, but in close dialogue with users and under real operating conditions.

This needs-based approach also makes the RSRG's portfolio of expertise easier to understand, from engineering know-how and operational experience to innovative products and digital solutions. It shows why the RSRG is the Partner of Choice.

Alongside its core project and machinery business, the RSRG is using the pilot projects to build a scalable product organisation and a sales function focused on customer benefit. This creates differentiation and new ways of achieving sustainable impact together with customers.

NEW INNOVATION STRATEGY

A clear framework for the solutions of tomorrow.



Torsten Bode
Head of Group Products
and Innovations



Stefan Potocan
Head of Product
Management



THE RHOMBERG SERSA RAIL GROUP IS CURRENTLY WORKING ON AN INNOVATION STRATEGY THAT CLEARLY DEFINES THE CONTRIBUTION INNOVATION SHOULD CONTINUE TO MAKE TO THE COMPANY'S SUCCESS IN THE SHORT, MEDIUM AND LONG TERM. IT IS NOT AN ISOLATED CONCEPT BUT IS ALIGNED WITH THE GROUP AND MARKET STRATEGIES AND SHOWS WHICH STRATEGIC OBJECTIVES CAN BE ADDRESSED THROUGH NEW SOLUTIONS.

This creates important foundations for transparent and robust decisions by the Innovation Board at Group level, including relevant KPIs for assessing the allocation of innovation resources and a roadmap charting the development of innovation within the Group. In future, the innovation portfolio can therefore be managed in an even more targeted manner - with maximum benefit for the company and its customers.

The strategy also defines suitable tools and methods to help managers and project teams implement innovation initiatives consistently, comparably and in line with the overall strategy.

In addition to short and medium-term topics, the innovation strategy also addresses the major technology trends that could change the rail industry over the medium to long term.

The aim is to integrate the innovation strategy into the Group-wide strategy process. In this way, the RSRG ensures that the needs of both the Group and its customers feed directly into innovation activities.

05

ON SITE



1

LIGHTS ON FOR OPERATIONS IN COTTBUS

/

Track field lighting at the new facility successfully tested and commissioned.



Lysann Krannig
Project Assistant,
Project Business



Stefan Mansch
Site Manager Electrical
Engineering External,
Project Business

DEU THE TRACK FIELD LIGHTING FOR THE SOUTHERN STABLING FACILITY AT THE NEW COTTBUS WORKS (NWC) HAS BEEN SUCCESSFULLY COMMISSIONED. A LIGHTING TEST IN FEBRUARY 2026 CONFIRMED THAT THE ILLUMINATION COMPLIES WITH STANDARDS, IS UNIFORM AND VIRTUALLY FREE OF SHADOWS - A DECISIVE FACTOR FOR OCCUPATIONAL SAFETY DURING OPERATIONS.

The system comprises around 400 lighting masts, 24 kilometres of cable and lighting for points, service walkways and stabling areas. Despite tight construction schedules, work during ongoing operations and winter conditions, the project was completed on time.

One special solution was a preheating container developed by the RSRG specifically to enable cable pulling at low temperatures.



2

PREPARED TOGETHER FOR AN EMERGENCY

/

Large-scale fire drill in Cottbus demonstrates collaboration between emergency services and the RSRG.



Thomas Hoffmann
Site Manager Construction
Logistics, Project Business



Lysann Krannig
Project Assistant,
Project Business

DEU ON 20 FEBRUARY 2026, EMERGENCY SERVICES TRAINED FOR A REAL EMERGENCY AT THE NEW COTTBUS WORKS. THE LARGE-SCALE EXERCISE WAS PLANNED JOINTLY WITH THE COTTBUS FIRE BRIGADE AND THE RHOMBERG SERSA RAIL GROUP'S CONSTRUCTION LOGISTICS TEAM. OVER A PERIOD OF TWO MONTHS, THE SCENARIO, OPERATIONAL PROCEDURES AND LOGISTICS WERE PREPARED IN DETAIL - INCLUDING COORDINATION WITH THE AUTHORITIES, INFORMATION FOR LOCAL RESIDENTS AND DRONE SUPPORT.



During the exercise, the teams simulated a fire with missing persons. Rescue and firefighting operations were successful. The exercise demonstrates that structured preparation and close collaboration enable the RSRG to create safe conditions for operations.

A Project

IN A CLASS OF ITS OWN

Repairing subsidence sections
in the Stutzeck-Axenbergtunnel.



Sven Meyer
Construction Manager,
Swiss Market

CHE DELIVERING A LARGE VOLUME OF CONSTRUCTION WORK IN A SHORT PERIOD UNDER DEMANDING CONDITIONS REQUIRES MORE THAN STANDARD SOLUTIONS. THE REPAIR OF THE SUBSIDENCE SECTIONS IN THE STUTZECK-AXENBERG TUNNEL SHOWS HOW PRECISE PLANNING, WELL-DESIGNED LOGISTICS AND WELL-REHEARSED PROCESSES CAN LEAD TO SUCCESS EVEN WITHIN TIGHT CONSTRAINTS.

The repair of the subsidence sections in the Stutzeck-Axenbergtunnel between Sisikon and Flüelen was a project with exceptional requirements. A large volume of construction work was safely and successfully completed within a short period with narrow time windows, complex conditions and high demands on planning, logistics and delivery.

The approximately 3.4 kilometre tunnel forms part of an important north-south connection in the Swiss rail network and is a key access route to the Gotthard Base Tunnels. The purpose of the work was to provide a permanent repair to several subsidence areas in the tunnel where settlement had already been identified.





A total of seven repair areas were treated as part of the project, with work progressing from one subsidence point to the next.

In the first step, the track was removed and the ballast transported away using an MFS material conveyor train. The existing concrete invert slab, rock and drainage pipe were then removed.

The concrete for the new invert was transported by rail to the respective subsidence point in the tunnel and, due to the local conditions, pumped over a distance of around 160 metres. The drainage pipe requiring renewal was concreted together with the invert.

The risk posed by water was a particular challenge during the repair. A spring at the site produced flows of up to 70 m³/h, so diversion through a temporary bypass had to function reliably at all times.

At the same time, the ballast bed and track were renewed and the track geometry restored. In total, more than one kilometre of track was renewed. The effective construction period was seven weeks.

Logistics presented one of the greatest challenges. As a large part of the construction site was located in a single-track tunnel and only limited installation areas were available, all material transport had to be organised precisely. For the most part, ballast, excavated material and construction materials could not be transported conventionally by lorry, but had to be moved to and from the construction site by rail.

Construction trains operated between the logistics locations and the tunnel worksite. Every movement of material had to be planned precisely and integrated into the available operational windows.

To meet the demanding schedule, work during the intensive construction phases was carried out predominantly in three shifts, often seven days a week. Construction work, material transport and track construction had to be coordinated precisely.

Despite the demanding conditions, the project was delivered efficiently and safely and the specified milestones were achieved, an outcome of which everyone involved can be proud.



1

GREEN TRACKS FOR THE GREATER COPENHAGEN LIGHT RAIL

/

Green tracks
shaping Copenhagen's
future mobility.



Mariusz Kalinowski
Business Development Manager,
Project Business

DNK SINCE 2024, RHOMBERG SERSA RAIL GROUP HAS SUPPORTED AARSLEFF RAIL A/S ON THE HOVEDSTADENS LETBANE PROJECT, CONTRIBUTING TO SUSTAINABLE URBAN TRANSPORT IN GREATER COPENHAGEN.

The Nordic team delivered track works in Lyngby and completed green track installations at several stations along the southern section in 2025.

With Phase One opened in October 2025, the light rail already connects key areas and strengthens integration with the S-train network. By 2026, the full 28 km line will link multiple municipalities, offering high-capacity, low-emission transport for the region's growing mobility needs.



2

CATENARY SYSTEM INSTALLATION IN COPENHAGEN

/

Stronger together
for Copenhagen's
light rail.



Mariusz Kalinowski
Business Development Manager,
Project Business

DNK ON THE HOVEDSTADENS LETBANE PROJECT, RHOMBERG SERSA RAIL GROUP WAS SUPPORTING THE INSTALLATION OF THE OVERHEAD CATENARY SYSTEM (OCS). THE NORDIC TEAM WORKED CLOSELY WITH A TEAM FROM AUSTRIA TO MEET THE PLANNED MID-2026 OPENING.



All works were executed for Aarsleff Rail A/S, in collaboration with Siemens Mobility, responsible for the integrated delivery of track, catenary, and rolling stock.

This project reflects what defines RSRG: strong partnerships, shared expertise, and a clear commitment to reliable delivery. By combining local presence with international know-how, RSRG continues to move projects forward – efficiently and together.

CORRIDOR PROJECTS FROM NORTH TO SOUTH

Coordinated modernisation of
key railway lines in Germany.



Michael Guele
Team Lead Equipment
Germany South,
Project Business



Jens Schülke
Project Manager,
Project Business



↳ Korridorprojekte

Contract: Refurbishment of a total
of 4,000 km of the German rail net-
work by 2030



DEU WITH ITS CORRIDOR PROJECTS, GERMANY IS ADOPTING A NEW APPROACH TO ROUTE REFURBISHMENT WITH HEAVILY USED SECTIONS COMPLETELY MODERNISED WITHIN COMPACT TIME WINDOWS. THE RHOMBERG SERSA RAIL GROUP IS MAKING A SIGNIFICANT CONTRIBUTION IN SEVERAL PROJECTS.

The aim is to combine all measures within a full closure lasting several months in order to strengthen the infrastructure sustainably and significantly reduce the construction period. Around 4,000 kilometres of the German network are to be refurbished in this way by 2030.

Hamburg-Berlin Corridor

In regional lot 1 between Hamburg and Büchen, the RSRG is responsible for the new construction and renewal of electric point heating systems over around 60 kilometres, as well as the installation of 50 Hz networks and 16.7 Hz backup power supplies for interlockings.

The scope includes 20 new 16.7 Hz point heating stations, including the removal of existing installations, 176 new point heating systems with cabling, the removal of more than 150 old installations and five backup power systems. Delivery is taking place under complex conditions, with civil engineering work carried out predominantly by rail and rail-mounted slewing cranes in use. Additional possessions, particularly in the Hamburg area, require detailed planning.

Passau-Obertraubling Corridor

Between Obertraubling and Passau, 115 kilometres of track, points, signalling and control technology and overhead line systems are being renewed, while stations are being modernised.

The RSRG's services in construction lots 1 and 2 include civil engineering and cable works, 12 concrete switchgear buildings, nine point heating systems, three backup power systems, outdoor distribution boards, connections to the overhead line system, as well as testing and upgrade measures.

A key success factor in both corridor projects is the close cross-regional collaboration within the RSRG.

TUNNEL REFURBISHMENT **AT THE FOOT OF THE SWISS NATIONAL PARK**

RSRG harnesses synergies as a full-service provider for the refurbishment of Brail Tunnel I.



Pius Jochum
Project Manager,
Swiss Market

CHE IN THE DEMANDING REFURBISHMENT OF BRAIL TUNNEL I, THE RSRG DEMONSTRATES HOW IT HARNESSSES ITS SYNERGIES AS AN INTERNATIONAL FULL-SERVICE PROVIDER.



The 895-metre-long metre-gauge tunnel, built in 1912, will undergo comprehensive refurbishment from April 2026 to June 2031 in order to safeguard operational safety over the long term and adapt the structure to today's technical requirements.

Dismantling and Reconstruction of the Tunnel Portals

A central element of the refurbishment is the renewal of the historic tunnel portals. They are carefully dismantled stone by stone, with all components recorded and stored temporarily. Following enlargement of the tunnel profile and modernisation of the substructure, they will be reconstructed true to the original, with distinctive stones returned to their original positions in order to preserve the portals' historic character.

Special Site Conditions

The location of the structure creates major logistical and safety-related demands. The tunnel can only be reached via viaducts up to 35 metres high, while construction operations in spring depend on alpine conditions. Work is authorised by the avalanche commission, as avalanches can cross the access routes to the site compounds.

Profile Enlargement and Internal Construction

The existing tunnel profile is enlarged by around one metre on each side using drill-and-blast excavation, generating approximately 15,000 m³ of excavated rock.



The subsequent internal construction is carried out using the RhB standard design with precast concrete elements. This approach has proved successful in previous projects and has been continuously developed further through RSRG initiatives. With Brail Tunnel I, the company is refurbishing the fourth of a total of seven tunnels for the Rhaetian Railway.

Night-time Work

Work in the tunnel takes place during the night-time operational break from 20:50 to 05:00 and requires precise planning.

The sequence is standardised - after the last train has passed, the tunnel is closed, the overhead conductor rail is removed, blasting is prepared and carried out, the excavated material is transported away and the newly exposed rock surface is secured using sprayed concrete and rock anchors. The conductor rail is then reinstalled, and a temporary protection tunnel erected beneath the newly excavated section.

An RSRG specialist supports the work on the overhead conductor rail system.

Digital Surveying and Documentation

The RSRG's Digital Rail Services department supports the project with surveying and construction progress monitoring. Continuous

3D documentation allows geometry, quality and progress to be tracked precisely. The tunnel therefore grows both virtually and physically, night after night.

Renewal of the Track System

Each spring, the existing track system is renewed during a five-week full closure and converted from ballasted track to slab track.

Specialists from the RSRG's mechanised track construction team are responsible for lowering the formation and installing the track.

Environmental and Nature Conservation Measures

To reduce noise and fuel emissions, the machinery fleet is being modernised, battery-powered equipment is being used more extensively and alternative fuels such as Hydrotreated Vegetable Oil (HVO) are being deployed. The installation of a photovoltaic system on the site facilities is also being examined. Rhomberg Energie is assessing the technical and economic feasibility.

↳ Brailtunnel I project

Length: 895 m

Track gauge: metre gauge

Year of construction: 1912

Construction period: April 2026 to June 2031

Rock excavation: approx. 15,000 m³

Line: RhB Scoul-Tarasp – St Moritz

PERFORMANCE ON A GRAND SCALE

RSRG completes key construction works on the Hamburg-Berlin high-performance corridor.



Sven Schickedanz
Site Manager,
German Market



DEU THE COMPREHENSIVE UPGRADE OF ROUTE 6100 IS ONE OF THE LARGEST INFRASTRUCTURE PROJECTS IN THE GERMAN RAIL NETWORK. IN REGIONAL LOT 3, THE RSRG MADE A SIGNIFICANT CONTRIBUTION TO THE MODERNISATION AND IMPRESSIVELY DEMONSTRATED ITS DELIVERY CAPABILITY.

Under demanding conditions, the route refurbishment was carried out from Falkensee station to Finkenkrug junction and onwards via Brieselang to Nauen as part of DB InfraGO's vast corridor project, with the RSRG acting as a subcontractor to DB Bahnbau Gruppe GmbH.

The focus was on renewing around 50 points, which are central elements of railway infrastructure and ensure stable, high-performance operations. Eight additional crossover connections were installed. The RSRG's impressive overall scope also included renewal of the formation protection layer and ballast, track and rail renewal, deep drainage and rail grinding. High-performance construction logistics ensured that materials and equipment were available at all times and that construction processes were efficiently coordinated.

Large machines such as a rail-mounted slewing crane and a high-capacity tamping system were used alongside numerous work machines, including up to eight road-rail excavators at times. Welded joints were also produced throughout the construction section. The organised interaction of a wide range of expertise within the RSRG was a key success factor.

An exceptionally severe winter restricted the construction process and led the client to extend the construction period. Early communication and close coordination among everyone involved nevertheless ensured that delivery remained coordinated and efficient.

The modernised infrastructure improves capacity, availability and operational stability on one of Germany's most important transport axes, creating direct added value for the customer. With the successful and safe completion of the work, the Rhombert Sersa Rail Group underlines its expertise in delivering complex major projects.

REFURBISHMENT OF THE MUSKAU FOREST RAILWAY

RSRG modernises the infrastructure of the historic narrow-gauge railway.



David Kubiczek
Spremberg Site Manager,
German Market



↳ Muskau Forest Railway project

Location: Upper Lusatia region, Germany

Client: Waldeisenbahn Muskau GmbH

Scope: Reconstruction of 3,600 m of track, renewal of three turnouts, installation of two new turnouts and construction of 140 m of run-round track

Construction period: November 2025 to March 2027 (scheduled)



DEU SINCE NOVEMBER 2025, THE RSRG HAS BEEN CARRYING OUT MAINTENANCE WORK ON THE MUSKAU FOREST RAILWAY, THEREBY SAFEGUARDING THE LONG-TERM PRESERVATION OF A UNIQUE HISTORIC RAILWAY LINE.

The project is divided into two construction phases and comprises extensive track and points work. A total of 3,600 metres of track will be renewed, three points replaced and two new points installed. A 140-metre run-round track will also be constructed.

Particular requirements arise from the 600-millimetre gauge and gauge widening in curves up to 615 millimetres. As is typical for historic railways, the work is being carried out using jointed track construction. All points and 300 metres of track are being installed on RC sleepers, which are precisely pre-drilled and set to gauge in advance. The remaining sections are being built on B70 concrete sleepers.

During the first stage from November 2025 to March 2026, a permanent team of five employees was deployed. Additional peaks in workload were covered flexibly. Despite a construction stoppage lasting several weeks due to severe winter weather, 1,400 metres of track and three points, including ballasting and tamping work, were renewed. Three level crossings were also removed and reinstated temporarily, allowing the line to be handed over on schedule at the end of March 2026 for the start of the season.

A key success factor is the partnership-based collaboration with Waldeisenbahn Muskau GmbH. The provision of the locomotive with ballast wagons and the tamping machine, together with the specialist exchange of knowledge, provided major support for delivery.

The remaining works will be completed in the second construction phase from October 2026 to March 2027. This will create the basis for safeguarding the operation of the railway, which is more than 130 years old, and preserving its “nostalgic journey from park to park” as a tourism asset for the Upper Lusatia region.

MODERNISATION OF THE GÖTZIS-RANKWEIL LINE

Reliability and specialist expertise
in every project phase.



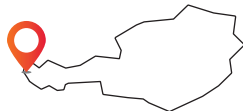
Hannes Steiner
Site Manager,
Austrian Market



Teodor Racic
Site Manager,
Austrian Market



↳ **Götzis/Rankweil project**
Location: Götzis/Rankweil, Austria
Client: ÖBB-Infrastruktur AG
Scope: Track renewal, turnout renewal, subgrade rehabilitation, cable civil engineering works
Construction period: February to May 2026



AUT THE MODERNISATION OF THE RAILWAY LINE BETWEEN GÖTZIS AND RANKWEIL HAS BEEN COMPLETED SUCCESSFULLY. EXTENSIVE TRACK AND CABLE CIVIL ENGINEERING WORKS HAVE CREATED INFRASTRUCTURE THAT WILL REMAIN HIGH PERFORMING OVER THE LONG TERM.

Comprehensive measures were carried out for the customer ÖBB-Infrastruktur AG on the double-track section from km 35.476 to km 41.695 between February and May 2026. The objective was to increase the stability, safety and performance of the connection over the long term.

Important preparatory work - such as excavating the cess walkways - had already been completed in advance. The main works began on schedule at the project start in February. Track 2 was renewed first, followed by track 1. At Klaus stop, two points were also renewed and subsoil remediation carried out at the same time.

The contract also included cable civil engineering works along the entire route, carried out in close coordination with partner Rhomberg Bau. Cable crossings and signal foundations were constructed on both tracks and cable troughs installed.

Another focus was the ancillary work required for the use of large machinery such as track renewal trains. Precise preparation and coordinated processes provided efficient support for the construction activities.

An in-house tamping and profiling machine, a rail-mounted slewing crane and an oscillating rail-grinding machine were also deployed, making an additional contribution to the project's success.

The scheduled commissioning of both tracks demonstrates how coordinated construction processes, specialist expertise and partnership-based collaboration enable efficient, high-quality delivery. For the customer, the result is a sustainably modernised route with high availability and operational safety - modern, future-proof railway infrastructure.

NEXT-GENERATION SIGNALLING FOR EBENFURTH

Modern signalling technology for a key station on the Pottendorf Line.



Bianca Klein
Deputy Head of Signalling
and Control Technology,
Austrian Market



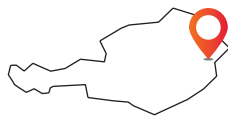
↳ Ebenfurth station project

Location: Ebenfurth, Austria

Client: ÖBB

Scope: Installation and cable termination, installation and integration of new point machines, erection of signals

Construction period:
January to October 2026



AUT THE RECONSTRUCTION OF EBENFURTH STATION IS CREATING A MODERN INFRASTRUCTURE HUB. IN THE FIRST CONSTRUCTION PHASE, THE RHOMBERG SERSA RAIL GROUP (RSRG) IS MAKING A SIGNIFICANT CONTRIBUTION TO THE SIGNALLING DELIVERY.

Relocating the station by around 150 metres and rebuilding it will enable higher line speeds and bring the infrastructure up to the latest technical standard.

In the first construction phase, the RSRG is delivering comprehensive signalling services. The contract for this phase runs from January to October 2026.

The scope includes installation and cable termination for the new electronic interlocking (ESTW), professional connection and testing of all cables, the installation and integration of new point machines and signal installation in close coordination with the ÖBB installation team.

A total of 37 points, 66 signals, one electronic point lock and one derail will be installed and connected. Eight speed monitoring devices will also be installed and commissioned, making an important contribution to operational safety. The cabling for 59 axle counters will be connected, as will the remote monitoring cabling for three level crossing protection systems and 32 group cables. All work carried out is tested, documented in accordance with standards and supported through to final commissioning. This ensures that all components function correctly and are integrated smoothly into the overall system.

Despite challenging winter conditions at the start of the project, the cable works were completed on schedule.

Construction phases, logistics and interfaces are coordinated in a spirit of partnership, supported by a high level of specialist expertise and committed collaboration. This is creating a powerful, modern signalling system that meets customers' increasing requirements for capacity, speed and operational safety.

MAJOR SERVICE EXPANSION

Ballast cleaning team deliver 7 back-to-back shifts.



Robbie Mullen
Chief Operations Officer,
Irish Market



“We brought the key team members into a room and worked through all the things that made delivery of seven shifts impossible at that time.”

Robbie Mullen
COO

IRL THE RHOMBERG SERSA TEAM IN IRELAND SUCCESSFULLY MAXIMISED OUTPUT WHILE ALSO MINIMISING CUSTOMER DISRUPTION BY DELIVERING SEVEN SUCCESSIVE BALLAST CLEANING SHIFTS.

Previously, the maximum number of successive ballast cleaning shifts on the Iarnród Éireann - Irish Rail (IÉ) network had been four.

The prospect of seven shifts was first mooted by the Track Delivery Unit (TDU) in IÉ in early 2025. The team at Rhomberg Sersa in Ireland then began to assess if it would be possible and if so, how to make it run as smoothly as possible.

“We brought the key team members into a room and worked through all the things that made delivery of seven shifts impossible at that time,” recalled COO Robbie Mullen. “Then one by one, we worked out how to resolve or mitigate those issues.”

As well as ensuring there were enough qualified staff, one of the biggest challenges was fuel as the ballast cleaner would run out of fuel in shift five. In the end fuel was brought and stored in bunds on site. As the shifts were so carefully planned, the machine was exactly where it was expected to be and was easily refueled while it worked the site between Charleville and Limerick Junction in the southwest of Ireland.

“Ensuring we had an adequate number of staff was also a challenge,” said Mullen. “We needed three separate shifts of both operators and fitters to ensure the machine could be operated but also so that we can immediately repair any issues which occurred on site.”

Thankfully, no issues arose, and the seven shifts were completed very smoothly and successfully ahead of schedule.

A total of 2.5 miles of track was ballast cleaned and handed back to IÉ.

“It was a huge success and thanks to all those in IÉ who worked so collaboratively with our team,” added Mullen.

FIVE OTMS SUCCESSFULLY OVERHAULED

The working life of five On Track Machines (OTMs) have been extended after undergoing major overhauls.



Robbie Mullen
Chief Operations Officer,
Irish Market

IRL THE MACHINES ARE OWNED BY IARNRÓD ÉIREANN - IRISH RAIL (IÉ) AND OPERATED AND MAINTAINED BY RHOMBERG SERSA RAIL GROUP IN IRELAND. HOWEVER, MAJOR OVERHAULS WERE NEEDED ON A NUMBER OF MACHINES AND AFTER A COMPETITIVE TENDER, RHOMBERG SERSA WON THE CONTRACT IN 2023.

Four of the machines were overhauled by RSRG specialists in Spremberg, Germany. “We worked very closely with the team in Spremberg and despite the Ukraine war delaying the delivery of the first machine, everything went smoothly,” said COO Robbie Mullen.

Each machine was taken apart, and the parts were either overhauled or replaced. Afterwards, each machine was put back together and repainted before being shipped back to Ireland for testing and commissioning.

The first machine to be overhauled was 742, followed by 743 and 751. The final tamper, 744, was successfully delivered back to Ireland in May of this year.

The fifth machine, which was also part of the overhaul contract, was ballast cleaner 781. Due to nature of the machine and the work schedule it was required for, a decision was made to overhaul it in Ireland in stages.

Each winter it was taken out of service for three months, with different sections overhauled each time.

“These overhauls are hugely important as they extend the working life of the machines,” said Mullen.

“These machines are highly specialised, expensive and also essential for the continued smooth running of customer services so having them in their best possible working condition is a win for everyone.

“As well as extending their working life, these overhauls also reduce the risk of a breakdown during an operational shift, which can have a knock-on effect on train services if the work is not carried out. Huge thanks to Olli Wittich, Tim Wellschmidt and Max Weise in Spremberg who made this collaboration such a success,” added Mullen.

RAIL SYSTEMS RECOORDINATED - LEAN & DIGITAL

How a tailored platform is transforming the coordination of major railway systems projects - developed directly from practice.



Clemens Oberschmied
Product Owner,
Project Business



Alessio Beani
Site Manager,
Project Business



↳ **Logistics coordination with real-time location tracking of vehicles, people and equipment in the tunnel, together with a range of logistics analyses.**

AUT **PROVEN IN THE KORALM TUNNEL AND FURTHER DEVELOPED FOR THE SEMMERING BASE TUNNEL: A DIGITAL PLATFORM THAT COMBINES LEAN CONSTRUCTION AND REAL-TIME COORDINATION - TAILORED TO CONSTRUCTION-SITE REQUIREMENTS THAT NO STANDARD PRODUCT CAN MEET.**

Deep inside the mountain, in confined spaces and working to a tight takt, tunnel construction sites do not forgive poor scheduling or uncoordinated logistics. Many trades, tight sequencing and numerous interfaces are involved. Therefore those who maintain an overview have a decisive advantage. This is the standard to which Lean Construction Management is practised on the construction site - not as theory, but as everyday reality.

A digital platform was developed together with BII GmbH for the Semmering Base Tunnel to implement this approach consistently. The methodology of Lean Construction - visual planning, collaborative project delivery and transparency - is not merely represented in the platform but deeply embedded in it. Already proven successfully in the Koralm Tunnel, the solution consolidates all relevant Lean and logistics processes in a single system - a one-platform concept that keeps everyone involved with the same level of information.

In practice, this means that weekly look-ahead plans are developed collaboratively, clashes in time and space are identified early, and delays are highlighted and supported by specific reasons. At the same time, the platform provides a real-time view into the tunnel. Vehicles, people and equipment can be seen at all times, allowing coordination to be based on what is actually happening rather than on assumptions. An interface to the in-house storage-area app enables materials to be called off as required, without an additional login and without delay.

What began in the Koralm Tunnel and is being continued in the Semmering Base Tunnel was not developed for the construction site, but with it - step by step and directly from practice. The result is a solution tailored to the specific requirements of major railway systems projects in a way that few standard products on the market can match.

ENGINEERING PRECISION ON SYDNEY'S NEW METRO LINE

Rhomberg Sersa Rail Group's innovative trackwork delivery on the SSTOM project.



Amber Bellamy
Communication and
Culture Manager,
Australian Market



➤ **Western Sydney
Airport Line Project**
Scope: 44 km of slab track, installation
of 76,000 sleepers, construction of
three double-slip crossings



AUS RHOMBERG SERSA RAIL GROUP, WORKING WITH WE-BUILD AS PART OF THE PARKLIFE METRO CONSORTIUM, IS DELIVERING PRECISION TRACKWORK FOR AUSTRALIA'S LARGEST SLAB TRACK PROJECT ON THE SYDNEY METRO – WESTERN SYDNEY AIRPORT LINE. THIS TRANSFORMATIVE INFRASTRUCTURE WILL CONNECT GREATER WESTERN SYDNEY COMMUNITIES TO THE NEW WESTERN SYDNEY INTERNATIONAL AIRPORT, OFFERING FAST, RELIABLE, AND HIGH-CAPACITY TRAVEL WHILE SUPPORTING THE REGION'S GROWTH.

RSRG is responsible for building 44 km of continuous slab track—the largest of its kind in Australia. On this ambitious project, crews of up to 60 workers are laying approx. 80 metres of track per day, installing more than 76,000 sleepers and using over 6,400 tonnes of Australian-made steel. These figures underscore the scale, skill, and coordination required for a project of this magnitude.

RSRG's engineering expertise is further evident in the delivery of three complex Diamond Crossovers. Installed to exacting tolerances and fully integrated with RSRG's proprietary alignment RhoFAS and RhoSAS systems, these trackworks required meticulous planning, precise execution, and careful adaptation to confined working conditions.

RSRG also developed in-house Concrete Placement Units (CPUs), specialised rail-bound platforms designed to support slab track construction in tunnel environments. Supported by an integrated system including hi-rail concrete supply and pumping, these units reflect the team's commitment to innovation and tailored engineering solutions.

Together, these works demonstrate RSRG's ability to adapt, innovate, and deliver high-quality outcomes on one of Australia's most significant rail projects.



Rhomberg Sersa Rail Holding GmbH

info@rsrg.com

www.rhomberg-sersa.com

Austria

Mariahilfstrasse 29

6900 Bregenz

T +43 5574 403 0

Switzerland

Badenerstrasse 694

8048 Zurich

T +41 43 322 23 23

Visit our online
magazine:



Follow us on
social media:

