



RHOMBERG RAIL COMPANY PROFILE



INNOVATIVE
RAIL
SOLUTIONS



FULL
SERVICE
PROVIDER



SLAB TRACK
INDUSTRY
LEADER

ON TRACK WITH US.



As a modern, internationally active family business, we implement railway infrastructure projects - from the smallest to the largest - together with our customers and partners in an economical, high-quality and timely manner.

 **EXCELLENCE**

 **RESPECT**



 **SAFETY**

We act with heart and mind every day. Mutual appreciation and trust form the basis of our binding actions.

 **COOPERATION**



 **TRUST**

We passionately realise our projects and shape a future worth living through visible success.



 **INTEGRITY**



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1 — Company Overview

1.1

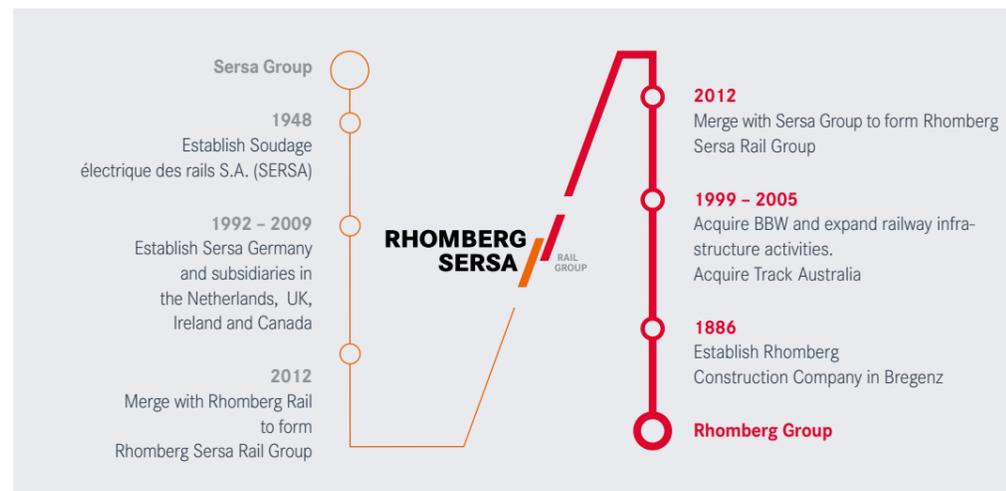
Member of Rhomberg Sersa Rail Group

Rhomberg Rail is part of the Austrian-Swiss based Rhomberg Sersa Rail Group (RSRG). When Rhomberg and Sersa merged in 2012, RSRG was established. Today, RSRG is a leading European railway service supplier generating an annual turnover of

574 M € through activities in more than 8 countries on 3 continents (Europe, Australia, North America) and with more than 2600 employees.

01

A success story



1.2

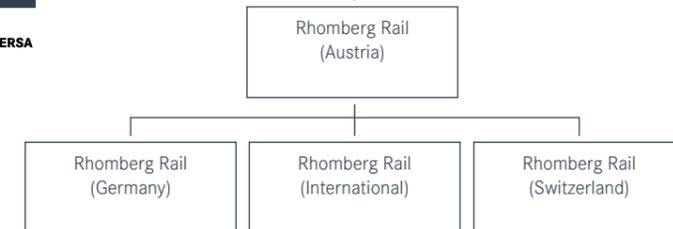
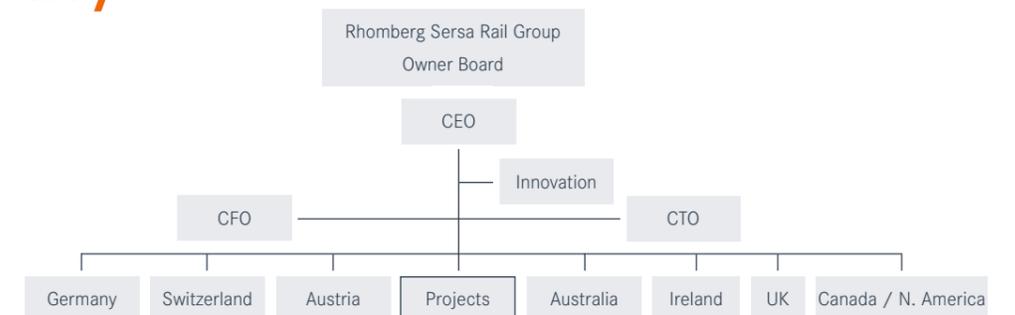
Organization & Key Figures

The Rhomberg Sersa Rail Group management consists of the Owner Board and the Group Management team and are jointly responsible for the management of the company's business. They provide guidance to the group and give strategic direction, whereby ensuring sustainable long-term interests and prioritization of investments.

Rhomberg Rail, with head office in Austria, is the group member that focuses mainly on permanent way construction projects worldwide – sharing the longstanding experience gained in slab track construction projects with the world, including electrical infrastructure installations and tunnel refurbishment activities.

02

Management and organisational structure



RSRG & Rhomberg Rail key figures

Name and Trading as	Rhomberg Bahntechnik GmbH
Legal Capacity of Entity	Limited liability company (GmbH)
Company registration number (GmbH)	FN 242073 s
Postal and physical address	Mariahilfstrasse 29 6900 Bregenz / Austria
Parent company	Rhomberg Sersa Rail Holding GmbH
Share of parent company	100%

	Rhomberg Sersa Rail Group	Rhomberg Rail
Chief Executive Officer	Thomas Bachhofner	Robert Kumpusch
Trading since	2012	2002
Employees (2021/22)	2600	394
Turnover 2021/22 in € Mill.	574	144

Accreditations

- Eco Vadis: Silver certified
- ISO 9001:2015 – Quality (2021/10/12)
- ISO 14001:2015 – Environment (2021/10/12)
- ISO 19600:2014 – Compliance (2021/10/12)
- ISO 45001:2018 – Health and Safety (2018/05/22)
- Safety Management System as per EU Regulation 1158/2010 (2021/01/10)
- Accredited Rolling Stock Operator in Austria

1.3 Vision & Values

Each and every one of our motivated staff is committed to the Rhomberg Rail company vision and making the values part of daily business. These show where we come from, how we take decisions and how our activities contribute towards sustainability.

Our company values, ethical and legally impeccable behavior are reflected in our Code of conduct and supported by the Compliance principles manual.

Vision

On the basis of our origins, our solid craftsmanship and our culture of values, we build courageously and innovatively in harmony with nature and innovative mobility for ourselves and future generations.

Mission

As a modern, internationally active family business, we implement railway infrastructure projects - from the smallest to the largest - together with our customers and partners in an economical, high-quality and timely manner.

We act with heart and mind every day. Mutual appreciation and trust form the basis of our binding actions.

We passionately realise our projects and shape a future worth living through visible success.

We are proud of this!

Values

Safety

Safety first!

Integrity

We say, what we think and we do, what we say!

Trust

We trust each other!

Teamwork

We instead of me!

Excellence

We combine innovation with performance and dynamics with efficiency!

Respect

Everyone is equally important!



1.4

Rhomberg Rail – What We Do

Full-service provider - Rhomberg Rail GmbH is a full-service provider of rail projects and looks back on a history of installing more than 760 kilometres of various slab track systems across Europe, making Rhomberg an industry leading company for slab track projects.

06

Core activities of Rhomberg Rail

 <p>Track Construction</p>	 <p>Tunnel Refurbishment</p>	 <p>Electrification</p>	 <p>Products & Services</p>
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For more details see Chapter 2

A wide range of project applications and services are offered; from green field slab track projects to tunnel refurbishment and electrification projects. Primarily, but not limited to European markets; and to a large extent in the role as General Contractor.

General Contractor for large projects

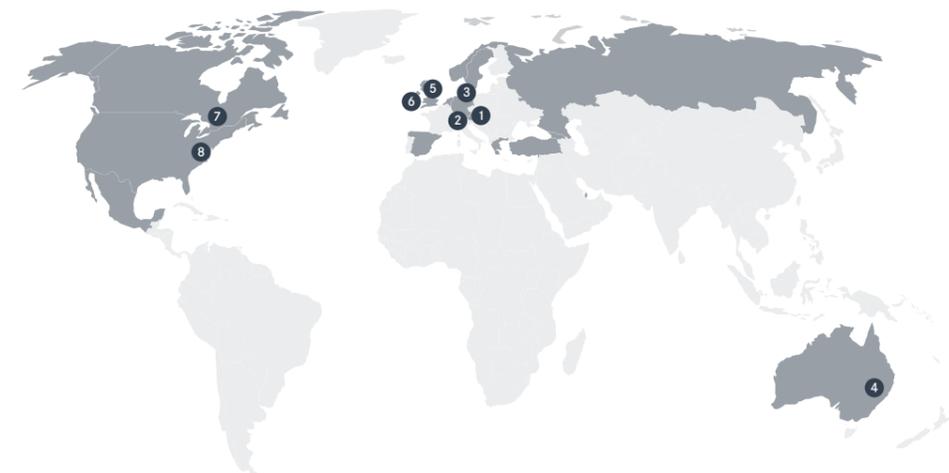
A vast experience in project management have been acquired through the role as General Contractor on several Europe-

an flagship rail projects (among others, Lötschberg CH, Brenner access tunnel AT, Wendlingen - Ulm GER, and many other large-scale projects) but also projects outside our local markets; such as Bybanen in Bergen Norway, Citytunnel Malmö, and the currently on-going Metro project Cityringen/Sydhavn in Copenhagen.

Rhomberg Rail is an international player with global reach, having both companies and projects around the world!

06

Rhomberg Rail's international projects make a difference across the globe.



● current and completed projects

- | | | |
|--|--|---|
| <p>1 Austria
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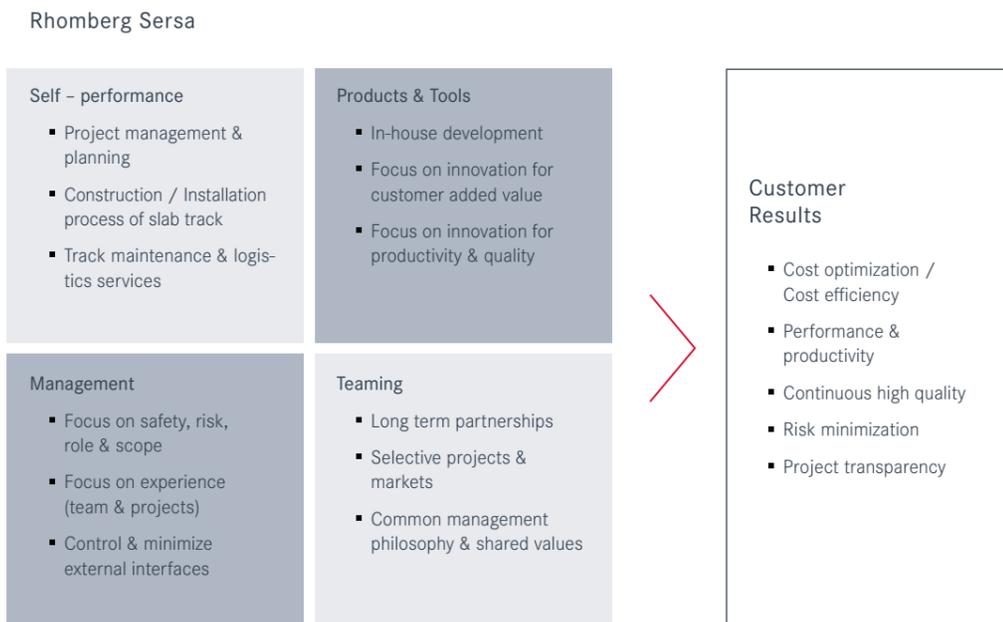
Competent partner

Rhomberg Rail GmbH continuously strives toward providing professional services for rail projects with an innovative organization and teams of highly-experienced rail professionals as a main asset, the aim is to encourage and drive a culture of service excellence and furthermore develop best-practice relationships with clients and partners – every step of the way!

Customer results through competence

In order to constantly improve value to customers, we define and prioritise our activities according to the following cornerstones: Cost optimization, reducing risk, improving performance, productivity, quality and project transparency.

07 Value delivery model



Self-performance and Management are 2 very important aspects for delivering successful customer projects.

The emphasis on self performance and the use of highly experienced staff means more than just management. It is the ability to (out-)perform and strengthen control over projects, schedule, quality, safety and budget. It also gives flexibility to alter processes in order to mediate or avoid risks (e.g. logistics, materials and environmental impact), optimize time schedules, etc.

Our Project Management is also a guarantee for quality, allows for high expectations as to how projects are executed, reduces risks and misunderstandings and ensure continuity in performance.

Wherever possible, local staff are invested in, because of their cultural understanding and experience. It is key to ensure that legislative regulations, labour market requirements,

health, safety as well as environmental aspects and requirements are met sustainably. The project management teams have a good understanding of local requirements and know-how to incorporate this into the final execution.

Products & tools - the experience gained from many projects have been used to continuously strive for creating better solutions - solutions that are more efficient, more economical and providing higher quality.

Today a portfolio of products, particularly around slab track installations have been developed; IVES is a Rhomberg proprietary slab track.

Products & Tools

are a result of nursing and developing internal core competencies and a continuous focus on development and improvements - from people to tools, processes and products. Always with the focus on innovation and value creation.

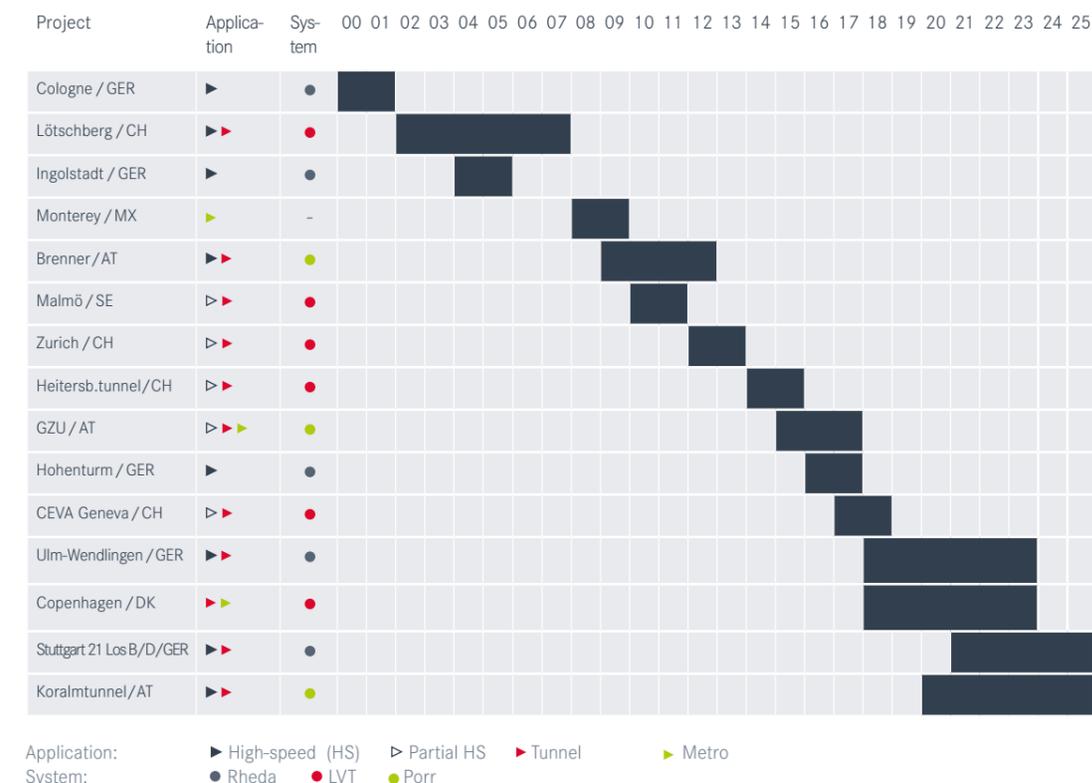
From experience to competence

With a track record of more than 20 years of seamless slab track projects throughout Europe (image below), this has enabled Rhomberg Rail to

maintain and nurse specific in-house key resources/competencies within project management and execution and thereby establishing outstanding competitive advantages in track installation performance. These specific competencies cover:

- Logistic concepts and material handling
- Installation efficiency (meters/day)
- Track quality (geometric accuracy and stress-free track)
- Interfaces
- Surveyance and
- Safety

08 20 years seamless slab track projects



20 Years of seamless installation of slab track projects cover both light rail projects in main cities across Europe (refer to list contained in Reference chapter); and also include several European flagship projects such as: Brenner north approach tunnel (35 km/71 km), Lötschberg tunnel (35 km/70 km), Zürich Cross city link (4,5 km / 9 km), Nuremberg – Ingolstadt (35 km) and currently under construction: Ulm–Wendlingen (60 km / 120 km) and Geneva’s CEVA tunnel (9 km / 17km).

The service delivery track construction spectrum is assessed to fit customer needs

Rhomberg Rail’s focus is to act as Prime / General Contractor, but also being versatile to act as sub-contractor for specific track infrastructure work packages and offering consulting services.

- **We have expertise** to manage the entire project as Prime Contractor. From planning to hand-over of completed project, we are clients’ first point of contract. A vast experience have been

acquired through the role as General Contractor on many large-scale projects

- **We offer management** of specific work packages such as:
 - Project Management,
 - Slab track installation
 - Surveying and track alignment,
 - Concrete-related works,
 - Logistics
 - Refurbishment
- **We are an innovative** contractor developing solutions for/ with customers
- **We provide consulting** services
- **We provide technical support** at construction sites
- **We develop specialised products** that have proven themselves in the industry.



2 — Business Segments

09

Full service provider

As a full service provider Rhomberg Rail covers the following segments:

Track Construction	Tunnel Refurbishment	Electrification	Products & Services
<ul style="list-style-type: none"> ▪ Slab track ▪ Ballast track ▪ Cover all segments: High Speed Lines, mainlines, metros, light rail, long distances, etc. 	<ul style="list-style-type: none"> ▪ Arch refurbishment ▪ Enlarge tunnel profile ▪ Drainage ▪ Cable ducts ▪ Track refurbishment (under operational conditions) 	<ul style="list-style-type: none"> ▪ Electrical Installations ▪ Traction & auxiliary power supply ▪ Electromechanical equipment ▪ Communication technology 	<ul style="list-style-type: none"> ▪ IVES ▪ V-TRAS ▪ HandraiLIT ▪ Diagnostics ▪ RhoTAS ▪ Rail Consultation

2.1 Track Construction



Rhomberg Rail covers both slab track as well as ballast track projects.

Slab track

is a type of permanent way infrastructure where the traditional ballast bed is replaced by a rigid concrete track (such as slabs, in-situ concrete or pre-fabricated units, etc.)

The concrete track transfers the load to provide stability to the track. With the use of elastomeric components such as pads, bearings and/or springs, resilience is introduced into the rigid track structure. From an environmental life-cycle perspective, slab track systems are more sustainable due to the long design life as well as the low maintenance requirements associated with slab track systems.

Rhomberg Rail – the leader in slab track, has successfully completed numerous large slab track projects across the world. And although having a renowned slab track record, we do not limit ourselves to ballastless track only, we also build con-

ventional/traditional ballast track and perform maintenance work on open track and refurbish railway tunnels. Calling on years of not only theoretical, but practical hands-on know-how in various types of slab track, this has paved the way for quite a number of innovative developments in ballastless track construction, the latest being Rhomberg’s own IVES slab track system and the V-TRAS for ballast/slab track transitions.

10 Slab track leader & innovation

Over 20 years of seamless slab track activities →

Experience 760 km installed slab track

- Rheda 2000/City
- LVT/LVT-HA
- ÖBB-PORR/STA
- Bögl
- Embedded Rail
- Individual support points (Vossloh, Pandrol, ...)
- IVES (Rhomberg)

Core competence 20 years seamless projects

- Project Planning
- Installation
- Meticulous alignment
- Precision measurements
- Concreting
- Logistics
- Refurbishment (including under operational conditions)

In-house innovation Tools & Products

- IVES (Intelligent, Versatile, Efficient, Solid)
- In-house designed transition module: V-TRAS
- ZOKA – tunnels, site access and monitoring
- RhoTAS

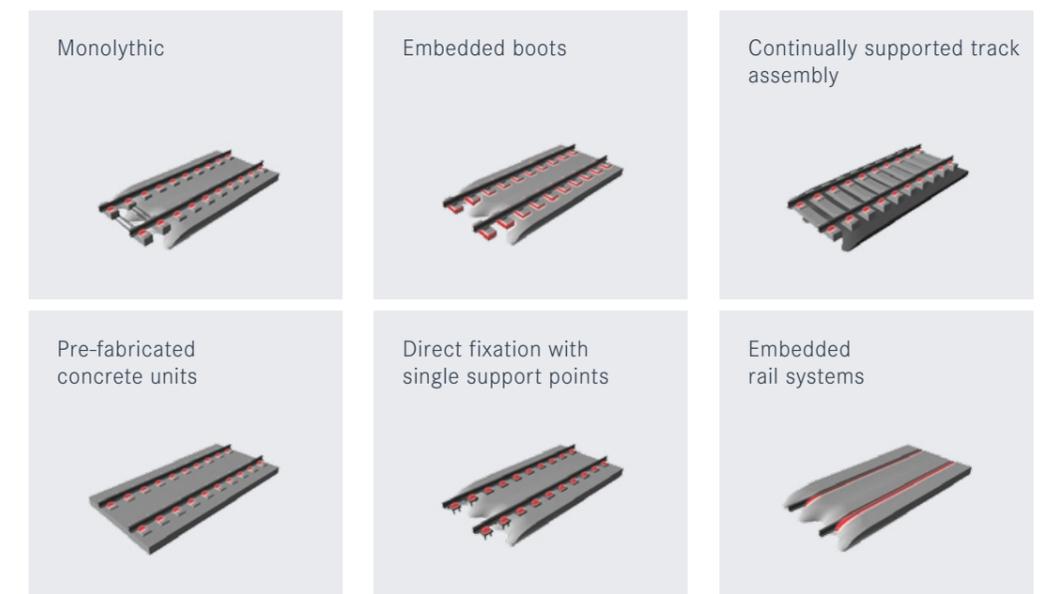
Whether involved in mainline infrastructure, light rail tram systems, urban networks or underground railways, we have the necessary expertise to tackle the requirements associated with construction or remodelling – particularly in geographically sensitive and demanding situations.

With the focus on sustainability and through experience we understand that restricted or residential areas require solutions with minimal disruption to the public and the environment. We also know how to face challenges of maintaining high productivity, whilst considering the safety of the local population, infrastructure and own staff. It is also essential to avoid, where possible, disruptions to public travelling and to transport networks.

Slab Track system independent

Rhomberg Rail is completely system-independent and has extensive experience with all major slab track systems dating back to 1999. These systems were installed at various sites across the world and are today still in their original state in operation, which reflects the quality of workmanship that is guaranteed by our name.

11 Main categories of Slab Track systems



The red colour marks the elastic elements ensuring the stiffness equivalence compared to conventional ballast track



The wide variety of slab track systems and slab track applications installed by us are listed as:

- **Monolythic** – Track systems with sleepers / supporting blocks firmly placed in in-situ poured concrete (Examples installed by Rhomberg Rail: Rheda 2000, Rheda City)
- **Embedded boots** – Track systems with elastically encased sleepers / supporting blocks firmly placed in in-situ poured concrete (Examples installed by Rhomberg Rail: Low Vibration Track (LVT) – Sonnevile, Edilon Sedra)
- **Continually supported track assembly** – Track systems with sleepers / supporting blocks borne directly on a track slab of either concrete or asphalt (Examples installed by Rhomberg Rail: IVES, Getrac A3)
- **Pre-fabricated concrete units** – Track systems consisting of pre-

fabricated concrete slab track elements / units / plates (Examples installed by Rhomberg Rail: Porr (previously the Austrian Federal Railway (ÖBB) standard construction system), Bögl, LVT)

- **Direct fixation with single support points** – Track systems anchored with single supporting points in in-situ concrete (Examples installed by Rhomberg Rail: Vossloh and Pandrol fastenings)
- **Embedded rail systems** – Track systems where rails are continually embedded / supported in in-situ concrete or in pre-fabricated track slabs. Mainly used for tram lines (Examples installed by Rhomberg Rail: Edilon Sedra, QTrack)

2.2

Tunnel Refurbishment



Railway tunnels are particularly prone to problems, the older the tunnel, the more extensive the refurbishment and know-how. Our expertise covers:

- Widening the tunnel's inside diameter to increase tunnel clearances
- track infrastructure installation,
- drainage and other installations and
- safety upgrades associated with refurbishment.

Rhomberg Rail has all the appropriate experience and specialist expertise to carry out refurbishment, modernisation and safety enhancement projects within railway tunnels – even under the severest of conditions. Our versatile track-bound mechanised equipment such as the Tunnel profile & widening unit as well as the Track dismantling & removal unit enable the widening of existing tunnel clearances as well as high performance machines for the removal of ballast track from inside the tunnel.

The modernisation of railway tunnels involves mainly the replacement of

ballast track with slab track, if necessary even a mass-spring system. What started many years ago with the Arlberg tunnel refurbishment project, has developed into one of our niche competencies as we are considered the best tunnel refurbishment company in Europe.

Placing a high emphasis on safety, the refurbishment of tunnels are more than often done under operational conditions with trains passing our work-teams at tremendous speeds. The use of a specially designed temporary tunnel shield ensures the protection of staff inside the tunnel and also avoids disturbances when exact inner tunnel diameter clearances should be achieved.

Some of our largest tunnel refurbishment contracts are: Glatscheras (CHF 7 million), Simplon, Bruggwald, then also Rekawinkel, Magnacun, Heitersberg and the new Albula tunnel. The majority of the tunnel refurbishment projects are in Switzerland, where we have established quite a name for ourselves in this niche market.

Working in confined spaces.



2.3 Electrical Infrastructure



Rhomberg Rail has continued to grow and develop the field of electrical infrastructure, which complements the services rendered in order to offer rail clients an even larger spectrum.

Specialising in the entire range of 50 Hz technology – from High-Voltage distribution stations, switch point (turnout) heating systems and track illumination to railway station infrastructure. The installation activities include the installation of network stations inside existing buildings

or in prefabricated concrete structures, which can be remotely operated, also mastpoles and low-voltage distribution networks.

The installation of safety equipment, uninterrupted power supply (UPS) units and switching systems also form an integral part of the electrical infrastructure construction spectrum.

Installation activities include switch cabinets, cabling, overhead installations and lighting solutions installed at projects across Europe.

Electrification

Overhead contact wire – irrespective if these need to be newly installed on local or long-distance transport lines or being inspected for maintenance, require the latest generation of lift and crane machines, inspection and maintenance vehicles, all of which contribute to increase in the efficiency of overhead wire installation.

Control systems and safety installations

The safe and efficient operation of railways require all the components of control and safety technology to work effectively. Our range of control systems include switch point drivers, train detection systems, level crossing components, ETCS* equipment (GSM-R** equipment, etc.) and tunnel control systems (such as doors, lighting, ventilation, pumps, evacuation systems, etc.).

* ETCS: European Train Control System
 ** GSM-R: Global System for Mobile Communication-Rail



12 Electrical infrastructure & systems

Our expertise in the field of electrical infrastructure and systems

 <p>Electrical Installations</p>	 <p>Traction & Auxiliary power supply</p>	 <p>Electromechanical equipment</p>	 <p>Communication technology</p>
<ul style="list-style-type: none"> ▪ Earthing ▪ Lightning protection ▪ Switch heating ▪ Lighting/ Illumination 	<ul style="list-style-type: none"> ▪ DC switchgear ▪ Transformers ▪ Light Voltage and Medium Voltage systems ▪ UPS 	<ul style="list-style-type: none"> ▪ Ventilation ▪ Fire extinguishing solutions ▪ Pumps ▪ Doors & Gates 	<ul style="list-style-type: none"> ▪ Remote control systems ▪ Communication solutions <ul style="list-style-type: none"> ▪ Telecom systems ▪ Radio/Wireless

Electrotechnical equipment (50 Hz)

We install complex components of electrotechnical infrastructure alongside the rail. Starting with the design of High, Medium and Low voltage grids for the supply of power to railway stations, control and safety systems, industrial buildings and facilities. We install the required transformer stations with switching systems and wiring installations.

Railway power supplies

Our services include the design and installation of railway power supply systems, substations, switches & crossings and overhead contact wire systems, including cables and return conductor systems. Our clients benefit from RhoSA and the installation of direct current railway supply systems. It consists of a system of inverters, direct current switching systems and innovative control mechanisms.

Ensuring our clients stay connected.



2.4

Products, Services & Innovation



Products/tools are part of our innovative organizational spirit. Strongly encouraged by entrepreneurial and innovative thinking, the organization continues to invest and develop new technology that help us create value for customers and improve safety and eases work processes.

Products and tools contribute to the optimization of construction activities - mainly for the installation of slab track (as well as for ballast track. However, for slab track it is more important because the competence is more proprietary, and accuracy and precision are more demanding factors).

IVES

Intelligent Versatile Efficient Solid

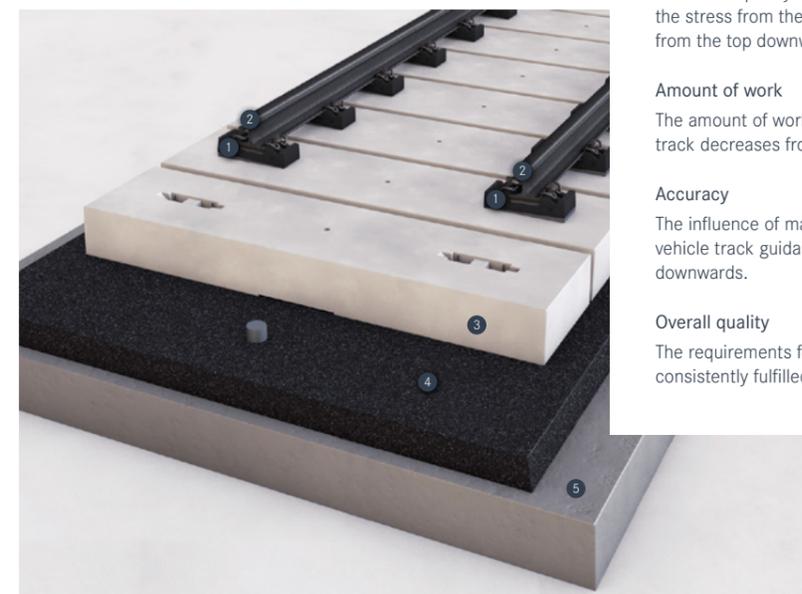
For slab track installation, Rhomberg Rail has lately developed an own in-house slab track system, IVES.

IVES stands for intelligent, versatile, efficient, solid. All these characteristics are embodied in this integrated concept, which is based on an analysis of the advantages and disadvantages of various long-term tested slab track techniques. The development of the IVES slab track solution is one example that shows Rhomberg Rail's experience in many different slab track projects, totalling more than 760 kilometers. Having had the opportunity to install a variety of systems such as Rheda, LVT, ÖBB-Porr, embedded track systems, etc. provided the basis for understand-

ing problems and challenges involved in current technology. From project design to track installation, alignment and final survey, IVES combines the best of already existing systems

- by eliminating in-situ concrete as a core aspect and
- high level pre-fabricated elements.

A further addition to the installation innovations of Rhomberg Rail, is the RhoTAS (Rhomberg Track Adjustment System) to ensure accurate slab track adjustments of the skeleton track and is slab track system independent.



- 1 rails
- 2 rail fastening elements
- 3 lateral structural element
- 4 base layer (preferably asphalt)
- 5 subgrade

Load capacity

The load capacity requirement decreases as the stress from the railway loads decrease from the top downwards.

Amount of work

The amount of work involved in building the track decreases from the bottom upwards.

Accuracy

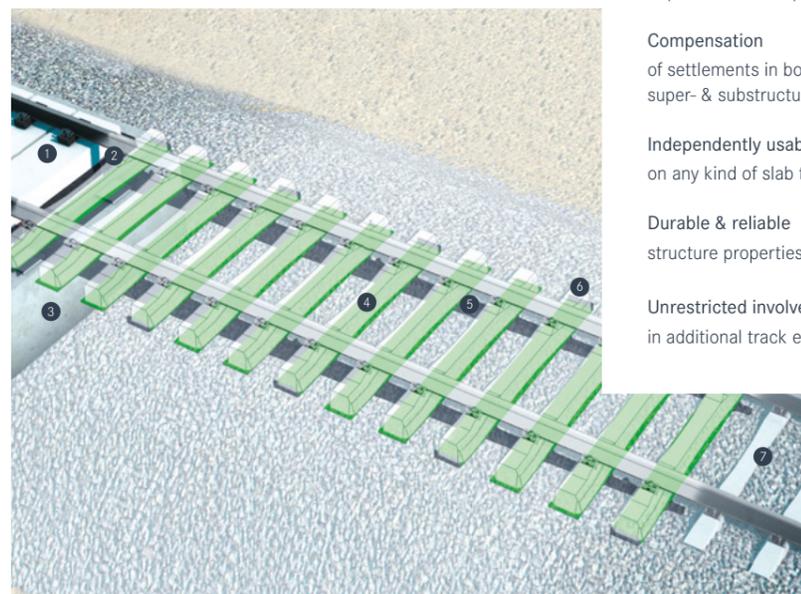
The influence of manufacturing accuracy on vehicle track guidance decreases from top downwards.

Overall quality

The requirements for overall quality are consistently fulfilled.

IVES

Link to the video:
<https://youtu.be/WTWT0v8reeY>



- 1 slab track
- 2 fixed bearing of the module on the slab track end
- 3 massive slab track end
- 4 elastic pads (green)
- 5 transition module V-TRAS
- 6 standard concrete sleepers
- 7 ballast track

- Advantages**
of pre-fabrication quality
- Compensation
of settlements in both:
super- & substructure
- Independently usable
on any kind of slab track type
- Durable & reliable
structure properties
- Unrestricted involvement
in additional track equipment

V-TRAS

Ever experienced problems with transitions from traditional ballast onto slab track or vice versa and having had to invest in intensive maintenance? Rhomberg Rail offers a lasting solution with the V-TRAS.

The V-TRAS transition is a prefabricated, robust ladder-form steel structure that ensures an even distribution of differential settlements in sub- and superstructures. One side of the V-TRAS rests on the end of the slab track, while the rest of the structure (with a length depending on the

specific project), is placed in the ballast roadbed, which provides it with a floating support.

Once installed, it is completely embedded in the ballast below the grid and therefore ideally integrated into the track superstructure and no further measures are required.

This holistic solution for a smooth transition can be used for all types of slab track and is independent of the entire track construction.

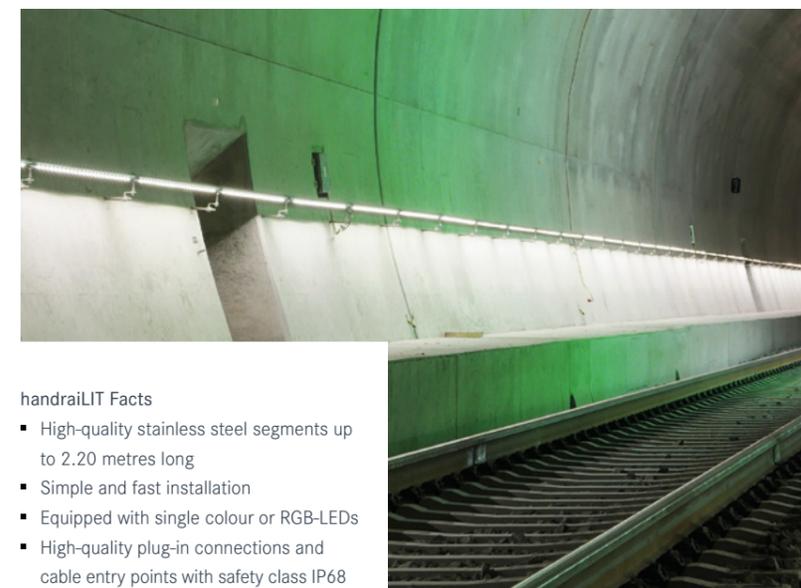
handraiLIT

The modern, cost-effective orientation and guidance system, **handraiLIT** for railway tunnels and other applications is a handrail with integrated orientation lighting.

Due to its low maintenance requirements and compliance with all applicable standards and railway regulations, not to mention certified by the Austrian Federal Railway (ÖBB), the handraiLIT is without a doubt an excellent longterm investment in tunnels.

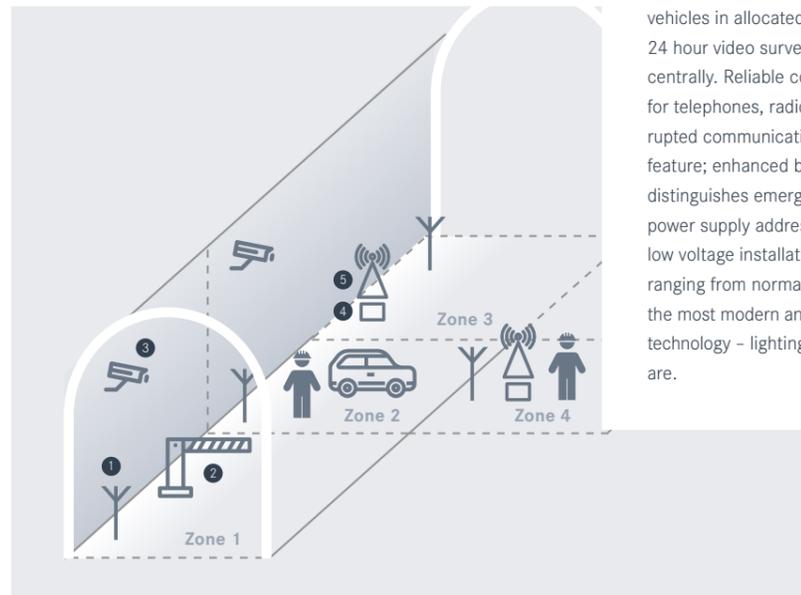
The robust design with an IP65 protection rating and built-in redundancy of the power feed arrangement guarantees consistent lighting – even in the event of redundant power supply.

Showing the agility of the technology, it leans itself to the application of not only linear lighting, but also point lighting and recess & emergency lighting as well.



handraiLIT Facts

- High-quality stainless steel segments up to 2.20 metres long
- Simple and fast installation
- Equipped with single colour or RGB-LEDs
- High-quality plug-in connections and cable entry points with safety class IP68
- Fire-retardant and halogen-free materials
- double-insulated and halogen-free cabling
- The latest LED technology with numerous lighting variants



- 1 Positioning transmitter
- 2 Access cabinet
- 3 Video camera
- 4 Communication distribution cabinet
- 5 Radio transmitter (e.g. WLAN, GSM)

Knowing who and what are where and when. Automated access to people and vehicles in allocated zones, supported by 24 hour video surveillance and monitored centrally. Reliable communication networks for telephones, radios and data for uninterrupted communication is a significant safety feature; enhanced by various alarms that distinguishes emergency levels. Appropriate power supply addressed by medium and low voltage installations. Lighting solutions ranging from normal fluorescent tubes to the most modern and sophisticated LED technology – lighting the way, wherever you are.

ZOKA

Access Location Monitoring Alarm

Experience in the management of large construction sites, has exposed Rhomberg Rail too often to risks like unauthorized access, human safety, failing power supply, lighting, vehicle/asset detection and the lack of constant communication. These lead to the innovative solution ZOKA, managing and mitigating risks associated with construction sites – even in the deepest and longest of railway tunnels.

In the central monitoring control centre all the various information are brought together, in order to obtain an overview of the entire construction site. The system can also issue new authorized restrictions and warning signals, enhanced by various alarm options. ZOKA is build on the foundation of risk management and safety.



3 — References



Making customer expectations a reality.

Rhomberg Rail has a vast experience in rail projects and the reference list includes some of Europe's flagship rail projects, such as Lötschberg tunnel, North approach to the Brenner Base tunnel in the Lower Inn valley in Austria (Zulaufstrecke Brenner Nord, Unterinntal) and CEVA in Geneva (which is currently still under construction).

The following references are an extract of our complete list and a selection of the most important projects. The projects serve to reflect the broad range of segments and markets of activities - from high-speed mainlines in Austria and Germany to major tunnel projects in Switzerland, Austria, Sweden, etc. as well as urban metro and light rail in Germany and Scandinavia.

Vast experience

Due to the many advantages of slab track, such as increased reliability, increased availability, high speed operation and reduced construction depth (dead load), more and more clients nowadays opt for the installation of slab track.

the installation of slab track. Our incomparable slab track record gives customers a glimpse of the vast experience in all the different slab track construction types and we are confident to provide each customer with a tailor-made solution.

Rhomberg Rail is without a doubt the preferred choice when clients do decide on

13

Major / Prime Contractor projects

Prime Contractor (Listed according to construction value)

Project	Value	Construction period	Client	Track segment	Slab Track	Ballast Track	Tunnel	Catenary	Med. Volt	Low Volt	Tele-com	Other equipment
1 Löttschberg Basestunnel/CH	CHF550m	2002 – 2007	SBB	ML	LVT 57km	●	●	●	●	●	●	●
2 Brenner North Approach/AT	€270m + €40m (Electrical)	2009 – 2012	ÖBB	ML	Porr 71 km	●	●	●	●	●	●	●
3 Wendlingen – Ulm/DE	€250m + €60m (Electrical)	2018 – 2020	DB	ML	Rheda 120km		●	●	●	●	●	●
4 Koralm Tunnel/AT	€160m + €110m (Electrical)	2021 – 2025	ÖBB	ML	Porr 66km	●	●		●	●	●	●
5 S21 Lot B+D Talquerung, Fildern/GER	€143m	2020 – 2025	DB PSU	ML	Rheda 41km		●		●	●	●	●
6 CEVA/CH	CHF78m	2018 – 2019	SBB	ML	LVT 18km			●	●	●	●	●
7 DML Zurich/CH	CHF43m	2012 – 2013	SBB	ML	LVT 9km		●	●	●	●	●	●
8 Eppenbergtunnel/CH	CHF 31m	2018 – 2021	SBB	ML	LVT 3km	●	●		●	●	●	●
9 Copenhagen Metro/DK	€30m	2018 – 2023	Copenhagen Metro	Metro	LVT 9km		●	●	●	●		●
10 Bybanen Bergen C51, Phase 3/NOR	€19m	2014 – 2016	Bybanen bergen	Urban	Rheda City	●	●					
11 City Tunnel Malmö /SE	€11m	2009 – 2010	Trafikverket	ML/Urban	LVT 13km		●					
12 Rosshäuserntunnel	CHF 10,5m	2015 – 2018	BLS	ML		●	●	●	●	●	●	●

ML = Main Line

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Tunnel Refurbishment

Tunnel Refurbishment

Project	Value	Construction period	Client	Track segment	Slab track	Ballast track
1 Heitersberg Tunnel	CHF 4,5m	2014 – 2015	SBB	ML	●	●
2 Arlberg Tunnel	CHF 112m	2005 – 2010	ÖBB	ML	●	●
3 Simplon Tunnel	CHF 38m	2012 – 2014	SBB	ML	●	●
4 Bergünstein Tunnel	CHF 11,5m	2019 – 2022	Rhätische Bahn	ML	●	●
5 Axen Tunnel	CHF 50m	2016 – 2019	SBB	ML	●	●
6 Magnacun Tunnel	CHF 1,7m	2019	Rhätische Bahn	ML		
7 Bruggwald- & Galgentobel Tunnel	CHF 7m	2018	Schweizerische Südostbahn AG	ML	●	●
8 Rekawinkel Tunnel	€12,6m	2016	ÖBB	ML		●
9 Gletscheras Tunnel	CHF 10,5m	2014 – 2016	Rhätische Bahn	Other	●	

ML = Main Line

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Slab track

Slab Track Projects (Listed according to value)

Project	Value	Construction period	Client	System
1 Hohenthurm	€ 16m	2017 – 2018	DB Netz AG	Getrac A3
2 General Freight Bypass (GZU) St. Pölten	€ 15m	2015 – 2017	ÖBB Infrastruktur AG	ÖBB-PORR
3 Bruggwald Tunnel	CHF 7m	2018	SOB	IVES
4 Cologne Stadtbahn LRT	€5,2m	2011 – 2015	Kölnener Verkehrs Betriebe	Rheda City
5 MDA Augsburg	€ 5m	2021 – 2022	SWA Stadtwerke Augsburg	Rheda City
6 Heitersberg Tunnel	€4m	2014 – 2015	SBB	LVT
7 Munich line 19 LRT	€2,8m	2013	SWM Stadtwerke Munich	Rheda City
8 Munich Linie 17 LRT	€1,8m	2014	SWM Stadtwerke Munich	Rheda City
9 Durchmesserlinie St. Gallen	CHF 1,6m	2018	Appenzeller Bahnen AG	LVT
10 Stockholm Citybanan	€1,5m	2015	Strukton Rail AB	LVT
11 Zierenberg Tunnel	€0,5m	2018	DB	IVES

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Electrification

Electrical Works (Listing according to value)

Project	Value	Construction period	Client	Track segment	Medium Voltage	Low Voltage	Telecom	Other equipment
1 Koralm Tunnel	€ 110m	2021 – 2024	ÖBB	ML	●	●	●	●
2 Wendlingen – Ulm/GER	€ 60m	2018 – 2020	DB	ML	●	●	●	●
3 Brenner North Approach/AT	€40m	2009 – 2012	ÖBB	ML	●	●	●	●
4 Stadtbahn Tunnel Karlsruhe/GER	€ 20m	2019 – 2022	KASIG	Urban	●	●	●	●
5 VDE 8.1 NBS Ebensfeld – Erfurt/GER	€19,2m	2014 – 2015	DB	ML	●	●	●	●
6 Eppenbergtunnel	CHF 13m	2018 – 2021	SBB	ML	●	●	●	●
7 Rosshäuserntunnel/CH	€10,5m	2015 – 2018	BLS Netz AG	ML	●	●	●	●
8 Simplontunnel/CH	€7,1m	2015	SBB	ML	●	●		●
9 DSTW Koblenz/GER	€2m	2021 – 2022	DB	ML	●	●	●	●
10 Frame work contract/GER	€1,5m	2014 – 2017	DB	ML/Urban/Other	●	●		●
7 Erzingen – Beringen/GER	€1,5m	2014 – 2017	DB	ML		●		●

ML = Main Line

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Light Rail Projects

Light Rail Projects (Listed alphabetically)

Augsburg/Germany	Bergen/Norway	Berlin/Germany
Istanbul/Turkey	Karlsruhe/Germany	Cologne/Germany
Copenhagen/Denmark	London/UK	Malmö/Sweden
Melbourne/Australia	Munich/Germany	Perth/Australia
Rotterdam/Netherlands	Stockholm/Sweden	Stuttgart/Germany
Toronto/Canada	Vienna/Austria	Zurich/Switzerland



4 — Resources

4.1

Human Capital

In order to professionally manage and execute projects worth hundreds of millions of euros, experienced staff is key. Rhomberg Rail has highly specialized project management staff and a high percentage in comparison to the Rhomberg Sersa Rail Group.

By keeping key people on board, we have been able to maintain relatively stable staff figures, which contribute to sustainable development, internal know-how

and competence combined with valuable experiences from projects.

Learning and sharing tools, training, methodologies, processes, etc. support the teams in delivering high quality projects, also focusing on developing competence and know-how.



Diverse perspectives – sharing one vision

Multi-skilled

Rhomberg Rail has a history of using multi-skilled field staff to drive down costs and improve efficiency. This includes:

- Use of qualified technicians, electricians, mechanics, and foremen. This wide variety of expertise is integrated into the daily operations and also reduces downtime in the event of a breakdown on site.
- Combining skills of our Engineers (spectrum covering Project Managers, Site Managers, Survey Engineers, Electrical and Commercial Engineers), Technicians, Surveyors, Project estimators, Controllers, Foremen, System Developers and other technical staff, we constantly deliver only the best work practices in a sustainable way.

Training and continuous development

Inexperienced staff are integrated into experienced work teams to improve skills and build specific competencies, whereby learning and sharing are part of the Rhomberg organizational values. This has led to considerable success in growing teams faster and with higher performance and safety results. Furthermore, input, new ideas and new perspectives from “outside” resources also have a chance to be integrated into project execution as a continuous improvement process and learning.

4.2

Machines & Equipment

The Rhomberg Sersa Rail Group (RSRG) owns, operates and maintains one of Europe’s largest fleets of on-track machines. The main machines and equipment used for traditional ballast track, are available to Rhom-berg Rail, from RSRG sister compa- nies across Austria, Switzerland and Germany, such as Bahnbau Wels (Austria), JumboTec (Germany), Sersa (Switzerland), etc.

RSRG is accredited in Austria and Switzerland for ECM (Entity in Charge of Maintenance) of rolling stock, EU

Regulation 445/2011). Maintenance is based on the ECM and considers specific European/national regulations and manufacturing specifications.

The track construction machines of the Rhomberg Sersa Rail Group all represent the current state of technology. Our customers can count on us that whatever their specific construction demands, we always find individual and suitable solutions.



5 — Sustainability

EcoVadis

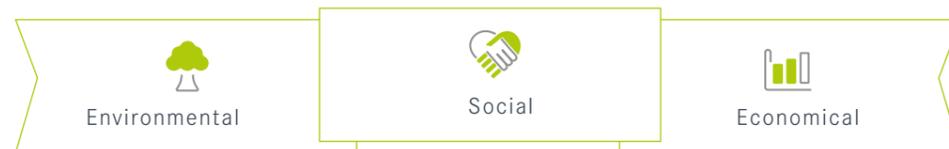
Rhomberg Rail is EcoVadis SILVER certified – a success that makes us proud. Because it means that we are clearly on the right track in the areas of "Environment", "Fair Work & Human Rights", "Ethics" and "Sustainable Purchasing". To receive certification, a company must demonstrate that it has integrated the principles and application of corporate social responsibility into its business practices and management systems in an exemplary manner, in line with international CSR standards, including the Global Reporting Initiative, the United Nations Global Compact and ISO 26000. The SILVER award places Rhomberg Rail in the top 25 percent.



Planning for tomorrow.

18

The Rhomberg Rail Sustainability Model



Characterized by providing sustainable solutions to customers, the Rhomberg Rail business model focuses on three main areas: Environmental footprint, Social footprint and Economic footprint.

We integrate the individual elements of sustainability and **we acknowledge** the effects, correlations, and inter-dependencies and search for an overall optimized solution that will ensure the best sustainable fit for the future.

We grow in all three fields through innovation, because each element has the potential to impact another. This can be achieved through holistic solutions – striking the best possible balance between customer requirements, the market, society, and our employees.

We balance quality, functionality, comfort, durability and flexibility by weaving these into our construction activities.

We cultivate in all our business relationships, a cooperative approach and aim for long-term, lasting relationships. Our company culture and our management style provide time and space for our employees to develop creative and innovative solutions.

We guide through our ethical & legal roadmap (Compliance Guidelines) – fair, open and ethical behavior among colleagues and towards business partners, suppliers & competitors.

5.1 Environmental

Striving towards continuous improvement of our ecological impact and avoiding environmental pollution. In order for us to meet this commitment, we:

- Involve, motivate and create awareness, encourage and monitor suppliers and sub-contractors to achieve the same environmental objectives

- Ensure compliance with relevant legal and other requirements
- Reduce the environmental impact of our activities from the earliest stage possible,
- Reduce emissions and pollution by improving waste management practices
- Reduce consumption of natural resources – procure resources locally where possible
- Minimise noise and other nuisances



Values 2019 - 2021

	2019	2020	2021
Rail share of rail and air kilometres in % (GER-AT-CH)	15	49	80
Corporate Carbon Footprint (Scope 1+2)_CO ₂ eq._ Quantity/wd. turnover, kg/€	10	8	5

Thanks to Rhomberg Rail's efforts, significant reductions have been achieved in recent years. For example, we have almost halved our corporate carbon footprint - i.e. the greenhouse gas emissions caused directly by our company - in relation to our turnover within just two years. And we will not stop improving.

ISO 14001 certification is immensely important to us. Therefore, we attach great importance to the effective implementation and fulfilment of the Environmental Management System (EMS). In addition, we analyse all strengths and weaknesses of our operational activities with the help of due diligence.

ISO Certifications

In a global marketplace, the checks and balances need to be in place. Being ISO certified shows that a company's management system, processes, services and documentation procedures are consistent in order to ensure quality across industries and nations.

Rhomberg Rail is ISO compliant and certified in the following fields:

- ISO19600 - Compliance
- ISO 9001 - Quality
- ISO 14001 - Environment
- ISO 45001 - Health and Safety

5.2 Social



Embracing diversity and non-discriminative

Quite evident of embracing differences in order to enhance our workplace, is the Rhomberg Rail diverse workforce, joining the company from more than 11 different countries, representing 4 continents and covering a spectrum of at least 7 languages!



Investing in employees

- Employee Manual covers principles, image, company values
- brainTrain - a web-based online knowledge and training platform, accessible any time by all staff across the globe and optimising direct costs associated with continuous development.
- Individual Skills Profile and Personal Development Path. We have had considerable success in blending inexperienced members into our work teams to improve skills and competency of our staff.
- Fair and equal treatment of employees, customers and networks.
- International laws and regulations we apply the same principles to business partners.
- Substance, alcohol and drug abuse, human rights and sexual harassment are covered by our Code of Conduct and Management Policies.
- Invest in Public safety organisations and our own Employees by sponsoring and focusing initiatives promoting energy-consciousness, environmental-awareness as well as social and cultural interaction.



Safety culture

We are committed to comply and value each and every life.

We are aware of our responsibility regarding the health and safety, involving training, handling of equipment, dangerous situations, increasing awareness and personal protection equipment.

We ensure that working conditions are beneficial to health. Our ISO 45001 health and safety at work management system is annually reviewed by an external body.

We care about the health of our employees and promote a healthy work-life balance.

Risk management

True to the definition of risk - the probability of appearance multiplied by the consequences - the health, safety and welfare of employees and subcontractors depend on making conscious decisions affecting personnel, vehicles, machines, equipment, and other assets as well as processes and procedures. The next chapter discusses Rhomberg's conscious management of risk and the awareness of safety in more detail, because we believe that safety enhances quality - from which not only we, but also our customers can benefit.

5.3 Economical

We believe in fair gain.

- Observe laws and regulations
- To be fair, respectful and trustworthy in all activities and business relationships,
- Respect and foster the reputation of the Rhomberg Sersa Rail Group,
- Ensure compliance in order to maintain transparent business relations.

We believe in ethical behaviour.

Our ethics and governance make us a trusted partner for business and for society and we pride ourselves in being a sustainable partner in the Supply Chain and share value in the communities where we work. There are many forms of corruption and all these cause major distortions of competition, therefore we are scrupulous in the application of legal requirements, supported by our Code

of Conduct and other detailed company policies, we set these as our Business Ethics' Foundation.

We believe in quality.

Providing our customers with only the best quality, assisting in finding solutions beneficial to our customers, that are holistic and sustainable through:

- Life-cycle optimization
- Expanding rail life (e.g. the application of our V-TRAS)
- Continuously improving the benchmark, as standard.

Presenting our customers with precision that can be measured is more than just being ISO certified - it is values like the dedication and attention to detail, that cannot be so easily measured, but are just as important to us as all our other values.



Investing in real sustainability.

Behaviour towards customers, suppliers and competitors entails honesty and sincere contact with customers in order to deliver a high quality product and service. Our interaction with customers is transparent and fair - based on correct and truthful statements regarding the quality, availability and features of products and services.

The safety and comfort of passengers demand absolute precision of the track geometry and positioning. Achieving these objectives require state-of-the-art measuring systems and efficient, cost-effective construction methods based on innovative technologies, high-performance machinery and well-planned systematic processes.

Our projects all include regular as well as random quality checks. We collaborate closely with research institutions like e.g. universities and other testing institutions to assist us in ensuring that our customers receive only the best and promised quality.



6 — Health & Safety

Forming an integral part of the Rhomb-erg Rail sustainability culture, are the health and safety of our employees, our clients & subcontractors, the public, assets and our impact on the environ-ment.



Safety culture

We at Rhomberg Rail set forth demand- ing goals for ourselves and for those with whom we work with; we also continually strive for improvement and have aligned ourselves accordingly.

- “Zero-accidents” culture.
- Equip employees with only the latest safety equipment and protective gear.
- Digitalise our construction sites with the installation of

the “Smart Safety System”.

- For tunnel operations, we use a mo- bile protective wall as an additional safety measure to protect our staff from bypassing trains and movable objects that may have life-threatening conse- quences.

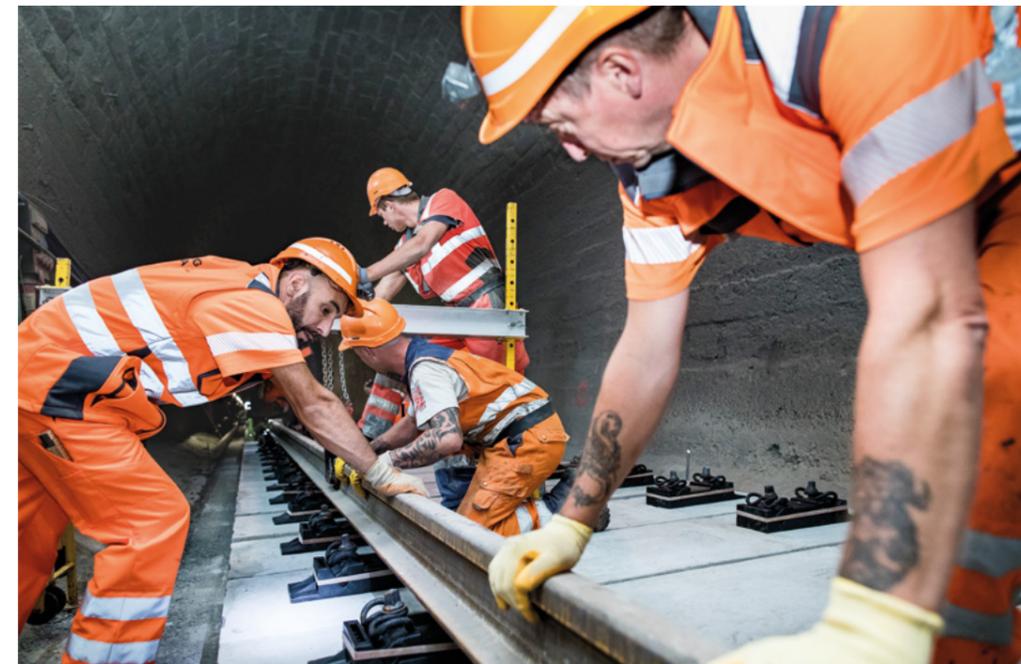
We are committed to comply with current laws and our vision and actions are fo- cused on the long-term future of the company and employees. We value each and every life and we consider ourselves honoured to be working with trained and professional staff. Rhomberg Rail is committed to a safety culture and management (elimination of work-related injury and illness through prevention, legislative compliance, consul- tation and accountability at all levels) to ensure optimum safety for all stakeholders.

We are aware of our responsibility regarding the health and safety of our workforce,

contract partners and customers. For this reason we make large investments in order to guarantee maximum health and safety at work; this involves training, including the handling of equipment and dealing with dangerous situations, increasing awareness, and personal protection equipment.

We ensure that working conditions are beneficial to health and in this way strengthen the fitness and wellbeing of our employees and subcontractors at all levels. All employ- ees should have a sense of responsibility for their own health and safety and for that of persons in their immediate working environment. Likewise, we request that our con- tract partners apply the same high standard with respect to health and safety at work. Our ISO 45001 health and safety at work management system is annually reviewed by an external body. In this way we ensure continuous improvement.

We care about the health of our employees and are aware that health problems often arise in the working environment – this is why together with our company physicians, we make an effort in making our everyday workday a healthy day.



Living a humanised safety culture.



Work-life balance

A well-balanced mixture of work and leisure time and the use of employees according to their strengths, have a high priority in our company. We have realized the importance of keeping a healthy work-life balance and have achieved

this through flexible work models based on the needs of our employees, in which we are in turn rewarded with the highest level of their commitment and service.



Risk management

The definition of risk is the probability of appearance multiplied by the consequences.

Managing risks is a key task of us as a contractor and through experiences gained in various projects across the world and of various sizes, types and cultures, Rhomberg Rail has always stood steadfast in continuing this.

Each of our projects undergoes a thorough risk analysis to establish the consequences of possible hazards. This

is a golden thread that runs from the planning phase, construction phase, including logistics, occupations, dealing with defects, managerial changes and weather conditions to the successful hand-over of the project.

The health, safety and welfare of employees and subcontractors depends on making conscious decisions affecting personnel, vehicles, machines, equipment, and other assets as well as processes and procedures. Constant improvement of elim-

inating risks and mitigating where elimination is not possible, are done through regular reviews, recording, reviewing and proactively seeking to eliminate and mitigate potential issues / hazards / risks.

On a more practical level, we have regular safety talks, implement speed restrictions on site, manage access by means of the ZOKA access system. Emergency numbers, evacuation procedures and rescue equipment are visible and available at all times and form an integral part of our sustainable culture.

Our comprehensive Integrated Management System (IMS) emphasize quality and continuous improve-

ment, safety, environmental protection, project management, employee management, data protection and is a platform where we record our processes. Regular plant and machine maintenance and deploying new technology take place according to our maintenance machine schedule.

Certifications

Rhomberg Rail has implemented and continually improves our HSE and Safety management system, which also contains the effective and continuous training of employees and (sub-)contractors.

- Management System as per ISO 45001:2018 – Safety and Health
- Safety Management System as per EU Regulation 2018



7 — Digital Transformation

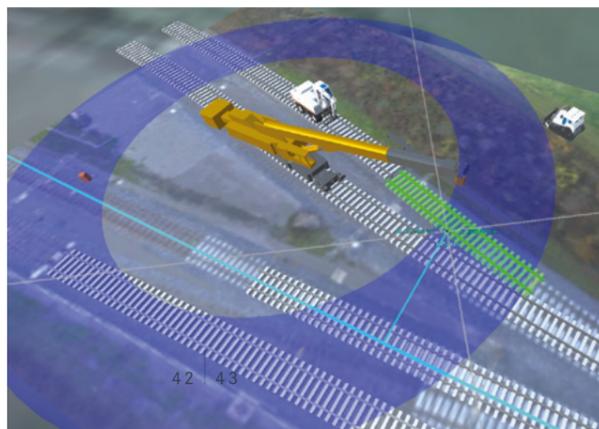
Digitalisation holds great opportunities - especially and above all for the operators of railway infrastructures. Our task is to recognise these opportunities and make them usable for our customers.

Example

"Building Information Modelling" (BIM)

As a technology leader in all aspects of track, it is a matter of course for us to offer our customers state-of-the-art solutions in the field of BIM and for the entire project life cycle. These range from 3D modelling, construction sequence and construction

process simulation based on the digital twin, as well as semi-automated costing with model-based billing, to data management in subsequent maintenance and operation. With the help of digitalisation, our goal is to provide you with the best possible support in all phases of your project. Only in this way, and this is our firm conviction, can we really use the latest technological tools to your benefit, increase your efficiency and thus give you a clear head start into the future.



Transforming the world of tomorrow.

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