cideon engineering

making mobility happen

C2 - Internal

We are CE cideon engineering Schweiz AG

making mobility happen

1 location in Switzerland and **6 locations** in Germany

Over 30 years of experience in the rail vehicle sector

Certified to DIN ISO 9001, ISO 14001, DIN EN 15085-2, DIN 17460 and ECM

Member of VDB, VPI, Rail.S, DIN FSF, Allianz pro Schiene, Swissrail, Litra, TST and VöV

Approved **assessors** with EBA/BAV

110 employees

EUR 12 million annual revenue

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Rail vehicle engineering

We support rail vehicles throughout their life cycle, from procurement and initial design through acceptance and authorisation to maintenance and modernisation. We combine technical expertise with regulatory knowledge and practical project support.

Electrical systems, control & software

We develop and integrate electrical equipment for modern rail vehicles. Our expertise covers traction and control systems, TCMS, ETCS and other vehicle interfaces.

Mechanical engineering

We help develop and optimise mechanical systems and components for rail vehicles. From design and analysis to technical assessment, we support new-build, conversion and modernisation projects.

On-site engineering and staff leasing

Flexible support wherever you need us. Our specialists strengthen your projects on site or on a project basis, providing the specific expertise required.

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Expertise throughout the vehicle life cycle

We support operators, manufacturers and project partners from initial requirements to safe operation, with technical expertise, regulatory knowledge and practical project support.

Procurement

Technical specifications, tender evaluation and evidence planning using the V-model in accordance with EN 50126 / RAMS.

Vehicle acceptance & handover

Checking technical requirements, documenting deviations and tracking open points through to handover.

Studies, concepts & documentation

Feasibility studies, technical assessments, vehicle and compliance documentation, test reports and commissioning.

Fire safety

Assessment of materials and components, with compliance evidence based on EN 45545.

Maintenance development (ECM 2)

Maintenance requirements, technical changes and documentation for safe, cost-effective operation.

Authorisation

National and European procedures, including the Fourth Railway Package, ERA and the One-Stop Shop.

Assessment against national regulations (DeBo / BBS)

Support with compliance evidence, review of relevant documents and coordination of assessment and approval steps.

www.cideon-engineering.ch

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Experience in the railway industry

1990

1992
FOUNDING
IKB Ingenieur- und Konstruktionsbüro GmbH

1995
CERTIFICATION
to ISO 9001

2001
RECOGNITION
as an assessor and specialist welding firm

2002
RENAMING
to cideon engineering GmbH

2003
OPENING
Chemnitz branch

2008
OPENING
Leipzig branch

2008
OPENING
Basel branch cideon engineering Schweiz AG

2013
INTEGRATION
into Friedhelm Loh Group

2016
INTEGRATION
into CRCCE

2018
PORTFOLIO EXPANSION
Electrical systems, control & software in Chemnitz & Dresden

2020

2022
30 YEARS
CE cideon engineering

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Making it happen

making mobility happen

Rail is seeing many technical innovations, including international control systems, modular freight wagons and new traction concepts. These developments create new technical and regulatory challenges for operators, manufacturers and project partners.

Meeting these challenges calls for experienced experts, from initial design through development and commissioning to authorisation and safe operation.

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Our core expertise
Rail vehicle engineering

From requirements to safe operation

We support rail vehicles throughout their life cycle, from procurement and initial design through acceptance and commissioning to authorisation, maintenance and modernisation.
We combine technical expertise with regulatory knowledge and practical project support.

Specialist services

- Procurement & technical specifications
- Vehicle acceptance & commissioning
- Fire safety to EN 45545
- ECM 2 / maintenance development
- Authorisation, ERA / OSS and DeBo / BBS

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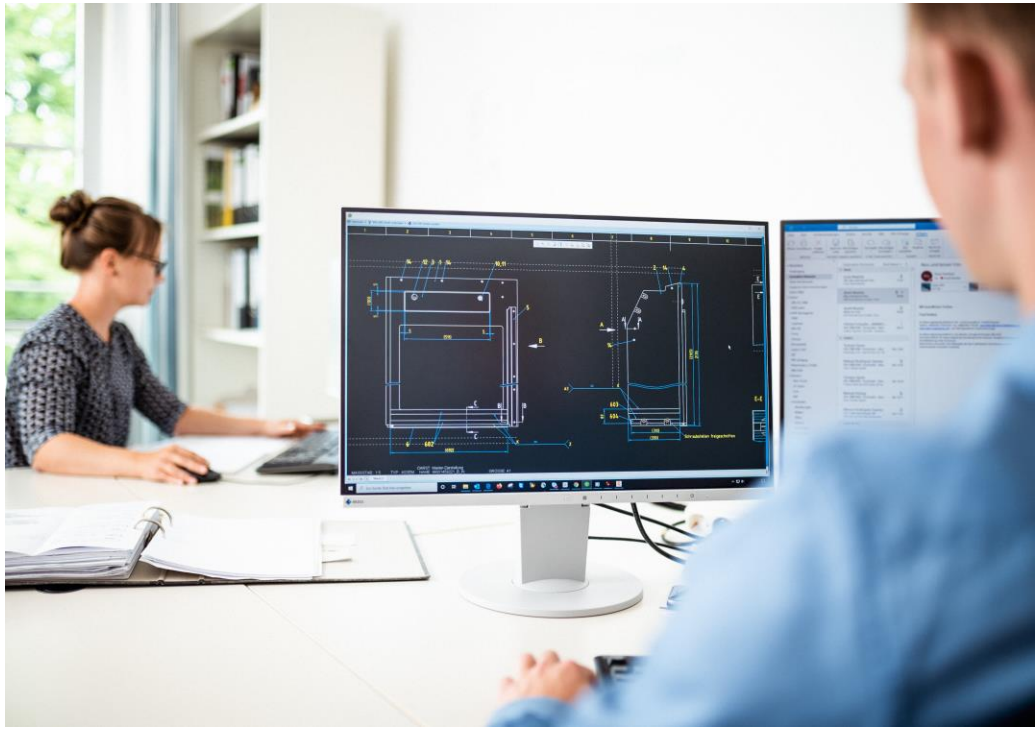
Our core expertise
Mechanical engineering

An integrated approach

Rail vehicles are highly complex systems. We design passenger vehicles, maintenance vehicles, freight wagons and alternative transport systems for you.
Our expertise covers the full development process.



Specialist services

- Adhesive bonding of rail vehicles and components to EN 17460
- Welding of rail vehicles and components to EN 15085-2
- Finite element strength assessment (FEM)
- Multibody simulation (MBS)
- Gauging and derailment assessment

Our certificates: DIN EN ISO 9001 | DIN EN 15085-2 | EN 17460

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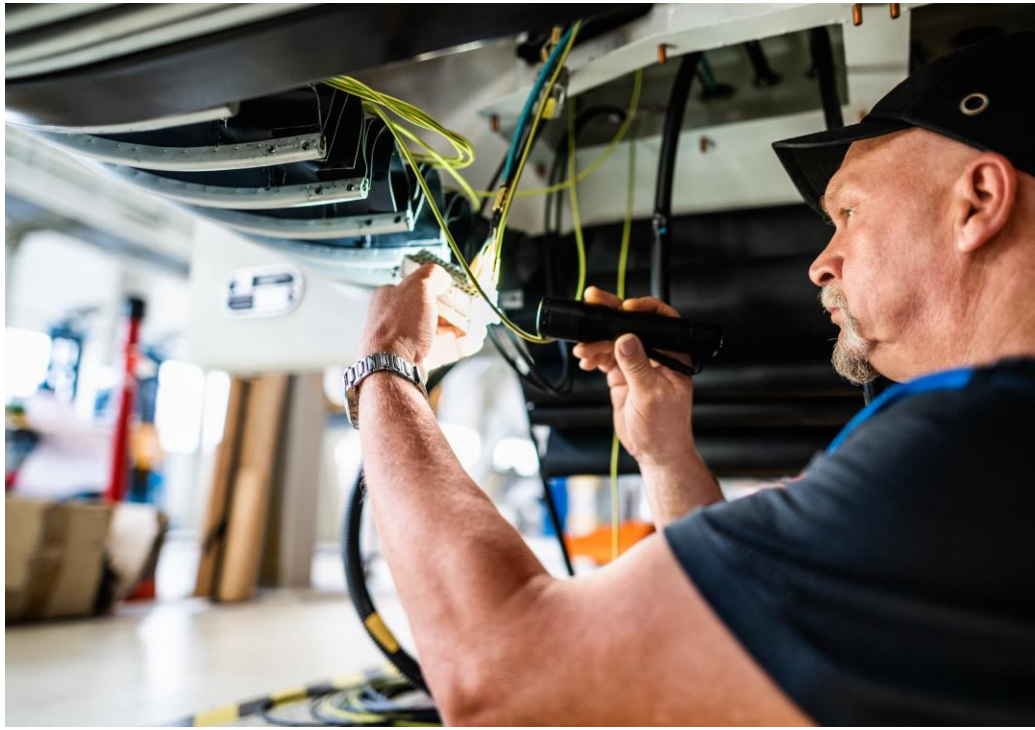
Our core expertise
Electrical systems, control & software

Technology that moves rail forward

Benefit from our expertise in electrical systems, control and software, covering functional vehicle concepts, Ethernet-based TCMS using TRDP, IT security, implementation and validation.



Specialist services

- Safety-related functional development
- Design of onboard power systems and power electronics
- Requirements development and management
- Circuit diagram design and cable routing
- Software development and testing (ISTQB) to EN 50126 / EN 50128 / EN 50657 (EN 50716 from 2026) / EN 50159
- Monitoring and diagnostics

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Our core expertise
On-site engineering and staff leasing

Capacity and expertise to suit your needs

Do you need to manage project workload peaks or add specialist skills temporarily to achieve your project goals? Our pool of highly qualified engineers covers all the disciplines needed for the mobility of the future.

Specialist services

- Support on site
- Remote support from our offices
- A combination to suit your requirements

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Reference project

ICN modernisation | Client: SBB Passenger

Project scope

- Sub-project management and coordination of all electrical work packages
- Overall responsibility for the electrical work packages
- Electrical engineering, including circuit diagrams, connection lists and equipment lists
- Preparation of cable assembly drawings
- Preparation and finalisation of technical specifications, studies, outline and detailed designs (German/French)
- Preparation and finalisation of test plans, commissioning instructions and records, and type-test instructions
- Coordination with internal and external specialist departments
- Implementation and management of obsolescence measures
- Evaluation of new components, master data maintenance and creation of material records in SAP/MDG
- Supervision of conversions and support for prototypes

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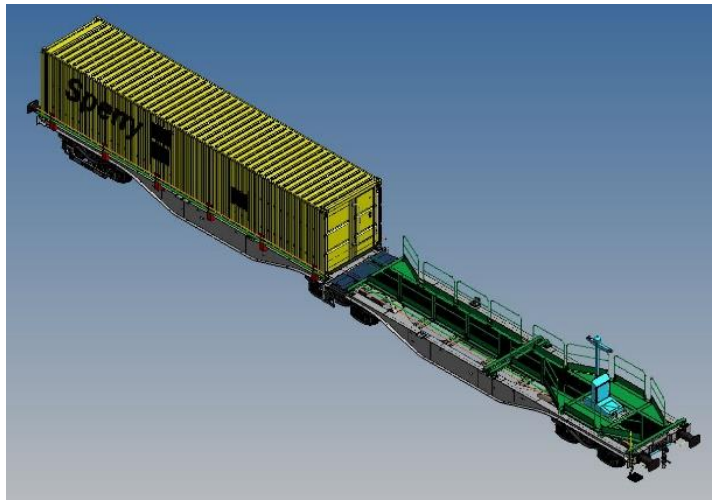
Reference project

Rail inspection train base vehicle conversion | Client: SBB Infrastructure

Project scope

- Engineering of the necessary modifications and integration of additional equipment for push-pull train operation
- Ensuring that modifications and additional equipment meet the approval requirements of the Swiss Federal Office of Transport (BAV)
- Evaluation of a suitable integrator for the onboard systems
- Ensuring all vehicle modifications can be reversed, including the required documentation
- Preparation of designs, manufacturing documents and conversion instructions
- Manufacturing supervision and monitoring of the conversion



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Reference project

IC-Bt modernisation | Client: SBB Passenger

Project scope

- Project management for the development department
- Mechanical engineering
- Technical responsibility for the work packages
- Creation of a vehicle structure in SAP
- Preparation of production documents and drawings
- Coordination with external suppliers
- Performance of First Article Inspections (FAIs)
- Support for prototypes
- Support during introduction into service
- Manufacturing supervision during series implementation

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Reference project

MTO Delta GoA 2 impact analysis | Client: BLT Baselland Transport AG

Project scope

- Clarification of responsibilities for carrying out train driver tasks and accountability for those tasks
- Identification of task-level changes compared with GoA 1+ operation
- Description and assessment of affected tasks RT2a, RT12a and RT12c, comparing the current and target states
- Analysis of relevant human and organisational factors, including attention, situational awareness, trust, work equipment and skills
- Identification of measures, training priorities and validation activities
- Documentation of overall conclusions for the safe introduction of GoA 2

Image: BLT Download Center

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Reference project

Vehicle commissioning support | Client: Matterhorn Gotthard Bahn AG

Project scope

- Quality assurance for the manufactured vehicles
- Verification that the vehicles meet contractual requirements
- Preparation of handover and acceptance reports
- Identification and documentation of deviations and defects
- Coordination with the vehicle supplier to resolve defects
- Supervision of warranty work with the vehicle supplier
- Supervision of dynamic vehicle commissioning
- Organisation and coordination of test runs

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Our customers

These companies place their trust in us

ALSTOM

SZU

BERNMOBIL
ZUSAMMEN UNTERWEGS

中国中车
CRRC

DB

bls

BVB

HARSCO

matterhorn gotthard bahn

LEONHARD WEISS

SBB CFF FFS

SIEMENS

SÜDOSTBAHN

STADLER

RHOMBERG SERSA

vossloh

VTG

WINDHOFF

Die Zentralbahn.

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Your next move

We look forward to exploring new opportunities with you

Contact us!

Martin Schreiber & Stefan Schneider

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