## Ramboll ICB Safety that moves you

precise | accurate | reliable | independent | impartial

## icb.ramboll.com



Bright ideas. Sustainable change.

## Welcome to the world of safety

#### Ramboll ICB

2

Ramboll ICB GmbH was founded to offer you independent and impartial services. Ramboll ICB is certified according to DIN EN ISO 9001:2015 and accredited as inspection body type A according to DIN EN ISO/IEC 17020:2012.

#### Safety is our top priority

We ensure impartial and independent assessments. Our work helps to build trust and confidence in the products used in rail operations.

Ramboll ICB strives for the highest quality, precision and accuracy. We consider every detail in terms of reliability, availability, maintainability and safety. You can rely on our expertise and assessment skills to identify quality and safety issues in the early stages of the product life cycle. Considering and eliminating risks in the early stages of development means cost savings in later stages and thus overall cost savings without compromising quality.



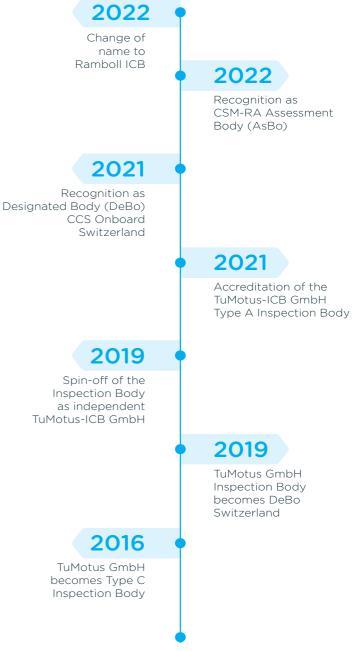
TuMotus ICB GmbH has changed to Ramboll ICB GmbH in 2022 and stays legally after independent

## Our team

Our team is highly competent and qualified and has been carefully selected to meet the standards Ramboll ICB stands for: precision, accuracy, reliability, independence and impartiality. Our team is our capital. We believe in our people and invest in their skills through regular internal and external training and seminars. We are very aware of the fact that technology, regulations and standards change quickly. Therefore, we follow all updates and do our best to keep our team up to date with the latest science and technology.

#### Your advantages

Inspection/assessment according to globally recognised standards is the basis for the worldwide acceptance of your products and thus for the expansion of your potential customer base. Our assessments help you maximise safety, maintain or improve quality, enhance performance, increase product value, optimise maintenance costs and reduce downtime. Our experts have many years of experience in the assessment of safety platforms, hardware, software and systems at the level of generic products, generic applications and specific applications. In addition, the inspection of ETCS engineering and installation data of radio block control centres, balises and signals is part of our daily work. Our customer base ranges from manufacturers, infrastructure and vehicle operators as well as cooperation with other bodies.



#### 3

# Assess your safety

#### Ramboll ICB Inspection Body

"We give you security - benefit from our many years of experience and successful cooperation with conformity assessment bodies and supervisory authorities."

The introduction of a new product in the railway sector as well as any modification of a component, an application or a system requires an independent conformity assessment (inspection) according to European legislation. According to ISO/ IEC 17020, this is the examination of a product, process or service to determine its compliance with specific requirements, or, based on expert judgement, with general requirements. This ensures the maintenance and improvement of the safety and performance of the overall system.

The Ramboll ICB Inspection Body is accredited by the German Accreditation Body (DAkkS) to carry out such independent assessments on products and processes in the railway sector.



The European Union has created a framework for cross-border rail transport with the published regulations on interoperability. There is also generally an obligation for the manufacturer to provide evidence of compliance with the requirements from the CENELEC standards when developing products and systems.

The Ramboll ICB inspection body carries out these independent assessments based on its in-depth knowledge of the relevant standards, the railway sector and the conformity requirements.

For the sub-areas of controlcommand and signalling, we offer inspections in the following areas:

- Assessment of quality and safety management processes • Assessment of safety cases
- Assessment of evidence of conformity



## Assessment is our fulfilment

Our experts work closely with you to ensure that your projects are completed on time and within budget. Benefit from this independent assessment in the approval and marketing of your products.

Independent assessments are also useful for non-regulated areas in order to demonstrate the safety of the processes applied. Ramboll ICB does this by preparing assessment reports or independent opinions on processes, specifications, test reports and project planning.

#### You can find detailed information in our topic sheet:

• Ramboll ICB inspection body service portfolio

#### For detailed information, please see our topic sheet:

• Assessment of control and signalling technology

## Guarantee your safety & quality

#### CSM-RA Assessment Body (AsBo)

When it comes to the approval of your control and safety technology products, you can benefit from our many years of international experience, our activity as recognised experts and our acceptance by national supervisory authorities.

The Ramboll ICB GmbH inspection body is recognised by the Federal Railway Authority (EBA) under the number DE/36/0023/0041 as a CSM-RA Assessment Body (AsBo) for control-command and signalling systems.

#### The recognition includes:

• Interlocking technology (ESTW Alstom (formerly Bombardier), point control components (POC) and signal control components (SOC))

 Level Crossing Technology (RBÜT (Application Software)) • ETCS on-board equipment (including GroupSTM, without

- national requirements for PZB & LZB)
- GSM-R (EDOR)
- Safe data transmission (without cyber security) · Assessment of applicationindependent safety cases generic products, generic applications)

## Certify your conformity

#### Designated Body Switzerland (DeBo)

The Ramboll ICB GmbH inspection body is recognised by the Swiss Federal Office of Transport (BAV) under the reference BAV-432.32-00001/00063 as a Designated Body Switzerland (DeBo) in the field of activity of controlcommand and signalling (CCS), on-board part.

## The recognition includes:

Benefit from our many years of experience with the Swiss Notified National Technical Rules for controlcommand and signalling when it comes to the approval of your ETCS vehicle systems.







# Safety assessment of QM/SM processes and safety evidence

Ramboll ICB GmbH inspection body is accredited by the German Accreditation Body (DAkkS) as inspection body type A according to DIN EN ISO/IEC 17020:2012 to carry out safety assessments of quality and safety management processes and of safety demonstrations (accreditation number: D-IS-21555-01-00).

#### Our competences include:

- Train protection systems (including ETCS and CBTC track and rolling stock equipment)
- Interlocking technology
- Level crossing technology
- Safe data transmission
- Safety concepts and safe platforms
- Evaluation of applicationindependent safety cases
- Audits

When it comes to the approval of your control and safety technology products, you can benefit from our many years of international experience, our activity as recognised experts and our acceptance by national supervisory authorities.

# Conformity assessment ETCS control-command, signalling

Ramboll ICB GmbH inspection body is accredited by the German Accreditation Body (DAkkS) as inspection body type A according to DIN EN ISO/IEC 17020:2012 to support Notified Bodies (NoBo) as inspection body (accreditation number: D-IS-21555-01-00).

#### Our competences include:

- Radio Block Centre
- ETCS Onboard Unit
- Radio Infill Unit
- Lineside Electronic Unit
- Eurobalise

When it comes to the approval of your ETCS components and systems, benefit from our many years of experience with the European requirements for train control, train protection and signalling.

# Create trust

### Inspection ETCS engineering data

As part of project implementation, ETCS data engineering is the link between your generic product and the specific application. Ramboll ICB offers you an independent and high-quality inspection with the aim of ensuring the quality of the ETCS project engineering data. Take advantage of our many years of experience in the application of different measures, methods and tools in international railway projects to ensure the quality and deadlines of your ETCS project.

#### Our services in detail:

- Completeness check of the bases
- Inspection of the data against the input documents
- Check against the project engineering rules
- Plausibility check



# Get to know us

## Visit us

#### Our clients and references

"We would also be happy to lead your projects to success and stand by you as a reliable partner with all our knowledge and skills. We are always there for you."

Our guiding principles are expertise, quality and adherence to deadlines. We always provide our services with the objective of delivering high-quality and meaningful results and are transparent at all times.

This is also appreciated by our customers, who include renowned manufacturers and operators.

We have been working together in a spirit of trust for many years and realise projects together worldwide.

Ask for our detailed reference list to convince yourself of our services.

Our location: Railway region Braunschweig

"We would be pleased to present our company and our services to you in more detail. Please contact us to arrange a personal meeting."

The Braunschweig region has been a centre of excellence for study, research, development and manufacturing in the field of rail transport and other transport systems since 1838.

The proximity to the Technical University and institutes is an



important building block for us to expand our knowledge of the latest technology and development.

Our location is easy to reach due to its central position within Germany and Europe as well as the good infrastructure connections.

Ramboll ICB GmbH Volkmaroder Straße 8 38104 Braunschweig Germany

+49 531 70221-0



Bright ideas. Sustainable change.