DESIGNING FOR A BETTER FUTURE

BUILDINGS CAPABILITY STATEMENT

MEA.RAMBOLL.COM
ABOUT US

Founded in 1945 in Denmark as a two-member partnership, Ramboll has expanded to become an international consultancy that today employs approximately 16,000 engineering consultants and professionals.

Located in 35 countries and in more than 300 offices, Ramboll provides engineering and design consultancy services across eight markets, namely buildings, transport, environment & health, water, planning & urban design, energy and management consulting.

Ranked among the top 10 buildings designers in the world, Ramboll has immense knowledge and experience in designing liveable cities and has been in the business of building sustainable spaces for decades now. Buildings form a fundamental part of our lives by shaping communities and influencing our daily activities. In the recent years, there has been a rising demand for energy-efficient and environmentally-compatible buildings in response to the rising concern of climate change. In addition to all this, the importance of a good design is paramount, and there is a great demand for unique and innovative architectural solutions.

Ramboll in the Middle East and Asia

With a diverse team of buildings experts across the Middle East and Asia region, we have the capability to design a broad range of building types high-rise towers, to retail malls, offices, mixed-use developments, residential, hotel and leisure. With offices in Bangalore, Dubai, Mumbai and Singapore we combine

the technical skills and experience to deliver expert solutions to some of the world’s biggest projects. Our diverse team of building experts have a genuine passion for engineering, which is applied with the same rigour and enthusiasm to our projects whether it is the design of a stadium or a single façade connection detail.

Power of a good design

At Ramboll, we view design as a tool for value creation - to enhance the experience of users and ultimately improve the way we live. At its best, a good design can regenerate communities, protect natural environments, and connect people across vast distances; it can provide new energy solutions and create buildings that people are happy to be in. A good design is also robust and long-lasting.

DESIGNING FOR A BETTER FUTURE

Contemporary global challenges call for innovative building solutions that are sustainable. Ramboll offers multidisciplinary design solutions to address all complex, interrelated aspects of the built environment.
We interact with world-leading architects and developers for our projects, often as a preferred partner. Collaborative working is prioritised from the onset of every project, thus making us fully aware of the clients’ requirements and preferences. Our clients want innovative yet proven-design solutions, and the experts at Ramboll have the competency and unique skill sets to give in their best to every project undertaken.

Balancing Technical design and innovation
Our experts at Ramboll challenge traditional boundaries, assumptions and test new technologies paving the way to the best solution for any project. Our design philosophy is to always make room for the human experience. Ultimately, we measure our success by how well people and communities are served by what we have done. By applying our “Liveable Buildings” concept, we integrate engineering, design, architectural, and consultancy services to balance the cultural, social and physical values of buildings. This enhances quality of life for users whilst improving financial viability for developers and owners.

The way we work
We take a fully integrated multidisciplinary approach to our work. Specialised teams are assembled from across the Middle East and Asia region on a project-by-project basis, to ensure that the appropriate expertise is employed on each individual project. By using continuous training, systematic knowledge sharing and regular project critiques, our experts gain a multidisciplinary approach to the way we work. We want to ensure that we deliver the best solution customised for that project. We constantly develop our design tools, construction methods and building components which are our key enablers to ensure technical excellence.

Transparency and client-centricity
At Ramboll, we work as independent consultants in an open, transparent manner with all our project stakeholders. Our goal is to create client partnerships on every project we undertake. We do this by prioritising relationship building from the outset of every project. Through close dialogue, we develop a profound understanding of our clients, the way they work, their vision, and their preferences.

Project management tools
Our Project Managers have undergone specific training in Ramboll’s Project Excellence framework and will be utilising specially developed standardised tools and procedures, specifically designed to assist him/her in running our projects. Each of our management tools and procedures is scalable, enabling them to be adapted to any size or typology of a project that Ramboll undertakes. The Project Manager is supported by the Project Excellence infrastructure which consists of a locally based support group of in-house schedulers, commercial managers, document controllers, H&S and QAQC personnel.

Project Excellence is the process implemented by Ramboll to bring together all initiatives relating to tendering and project delivery in a single coherent and scalable programme that is designed to ensure Ramboll continues to adapt to market needs and becomes even more focused on effective project and tender management. The aim is to delight our clients, motivate our people, and maximise profitability for the business with an end goal of benefits realisation for both our client and Ramboll.

In this capability statement, we highlight a selection of completed and ongoing projects that the Ramboll Buildings team in India have undertaken. The projects listed in this document are not an exhaustive and complete list but has a select few for reference.
KEY PROJECTS AND SERVICES

As one of the world’s most renowned building designers, we create visionary, sustainable and award-winning buildings that reflect clever engineering, safety and creativity.

**FACTS ABOUT BUILDINGS**

- Revenue in 2017: 452 million EUR
- Number of employees: 3,774
- Geographical spread: More than 100 offices in 10 countries
- Rankings: Ramboll is among the top 10 buildings designers in the world (source: ENR 2017).
- Our clients: Our clients include leading architects, developers, contractors, building owners, private corporations, universities, government institutions (incl. health and culture), and municipalities.

**STRUCTURAL ENGINEERING**

Our experts view structural engineering more than just transferring loads from a building’s structure to its foundations. The holistic approach taken by Ramboll’s structural engineers aims at developing optimal structures that also meet architectural, economic, environmental, fabrication, transportation, and construction requirements. Our structural engineers have created masterpieces by taking inspiration from nature and the environment around us. We are proud to be developing innovative structures and setting new standards, both in terms of structural concepts and geometric complexity. We use the most advanced engineering software and develop our own when our needs go beyond the limits of commercially available software.

Our teams design conventional as well as advanced structures such as ultra-high buildings, composite steel, concrete and glass structures among others.

Ramboll is ranked 9th in top 10 global buildings designers (ENR 2017)
**01 Sardar Vallabhbhai Patel Institute of Medical Sciences and Research, Ahmedabad India**

Ramboll is pleased to be associated with this project initiated by Ahmedabad Municipal Corporation to develop their medical campus in Ahmedabad and build a multi-speciality hospital catering to current and future needs. Ramboll appointed as the structural consultant for the project working with Archimedes Consultants in designing this facility. The 1,611-bed multi-speciality hospital will be home to general, speciality and super speciality wards. Ramboll developed the structural scheme for the basement portion completely with RCC elements (walls, slabs, columns) and proposed the superstructure in structural steel with RCC core walls. This approach was chosen to meet the tight timelines of the project as well as the need to have clear spans up to 11.5m with full flexibility for floor layouts in the future. We developed the tender package and assisted the clients in evaluation and selection of the appropriate contractors for the execution of the concrete basement and the steel superstructure.

**02 Amazon India headquarters, Hyderabad India**

The India Amazon headquarters is designed to be iconic and offer comfortable working spaces with provision for recreation and wellness. This 70m high building spanning across 325,160 sqm will have two levels of basement, four parking levels and 14 typical floors. Ramboll was appointed to be the structural consultant for this project. Our experts worked very closely with the client and conducted repeated rounds of discussion, since the controlling factors in the Amazon project were different from other projects and this made the project experience unique.

**03 Montana Residential tower, Mumbai India**

Owing to our expertise in the residential space, Ramboll was chosen to partner with M/S Sheth developers one of the leading residential developers in Mumbai to construct the 147m high-end residential towers. Each wing of the tower has a ground floor, four podiums, an eco-deck and 35+ typical floors. Spread over an area of 7.5 acres, this high-end residential property will provide good access to the major business hubs in Mumbai. Ramboll was associated with this project as the structural, mechanical, electrical and plumbing (MEP) consultant. Located in an easily accessible place, this residential property is expected to be a sought-after real estate piece with all modern amenities.
Ramboll is proud to work in partnership with RMZ Group’s project in Bengaluru in developing their land parcel for setting up office space complexes for IT companies. With the IT boom in India, Bengaluru has become the host to offices of the global multinational companies. Eco world is an IT park, providing international standard office space for this flourishing IT industry. Emphasis has been placed on the sustainability aspects, and it is a LEED Gold certified project. The masterplan area covers over nine hectares. Ramboll is the structural consultant for the RMZ Eco world project. The construction of the towers is being done in four parts to enable better control on design, coordination and construction.

The Virgo IT park is a complex architectural form using a rationalized structure and Ramboll’s team of experts provided structural design services during the development of the project. The Bengaluru-based Bagmane Constellation Business Park - Virgo comprises of two basements, 11 upper-storey structures apart from the ground floor. The two basements and three upper floors are used for parking, while some portion of the ground floor serves as a parking area while the remaining part houses a cafeteria. The eight floors on top have a number of offices. The total height of the business park is 46.5m, while the total built-up area of the business park is 110,000 sqm.
07 Residential Development at Brookside, Nairobi Kenya
A residential building in the upscale Brookside area of Nairobi, the capital city of Kenya, is spread around an area of more than 26,000 sqm. The building comprises 16 levels, with amenities on the first two and the rooftop levels and has three parking levels. Ramboll has been appointed as the structural and MEP consultant for the development of this project.

08 JW Marriott Hotel, Mumbai India
The five-star JW Marriott is located adjacent to Terminal 2 at Chhatrapati Shivaji International Airport in Mumbai. It provides luxury hotel accommodation along with retail and commercial space. The 575-key hotel wing of the concrete frame structure is composed of two rectilinear blocks set in a ‘V’ formation, embracing a curved entrance portico and drop-off zone with a water feature. Behind the hotel, the commercial wing extends the building to make a cranked ‘T’ of the whole in plan. In all, the project is 12,000 sqm, including its double basements. Ramboll was the structural consultant for this project. The structural design was envisioned with flexibility as the key driver and Ramboll supported the client extensively to enable fast-track construction.
MECHANICAL, ELECTRICAL AND PLUMBING (MEP) SERVICES
Ramboll’s MEP experts always ensure to provide engineering solutions that are cost-effective, creative and sustainable.

Our MEP engineers work in tandem with the client to produce efficient, comfortable buildings in which structure and systems seemingly interface with each other. Our MEP solutions are designed to meet the international guidelines for energy use, carbon dioxide emissions and are always well within the maximum adherence limits stipulated.

Our building projects include heating, ventilation and air conditioning designs which are tailored to suit the internal design requirements and aesthetically match the architectural aspirations of the building. The electrical engineers at Ramboll assess the needs and propose technical solutions to optimise operating reliability and economy. With specialist expertise in areas such as power supply and lighting systems, we constantly strive to ensure that we minimise energy usage within the built environment concrete and glass structures among others.
09 W Resorts, Goa India
With a total built-up area of 23,225 sqm, Starwood Hotels & Resorts’ global chain of W Resorts in Goa houses 150 rooms. This premium hotel sprawls across an area of 22 acres, and Ramboll was appointed as the MEP consultant for the project. This project was a breakthrough for Ramboll’s MEP team in India in the hospitality sector and the team successfully demonstrated their expertise in this field. Ramboll provided energy efficient engineering design solutions, which emphasised on sustainability.

10 Mixed-use Development at Masari Road, Nairobi Kenya
M/s Gami Textiles appointed Ramboll’s experts in India as the structural and MEP consultant for a 39,200 sqm mixed-use development in Parklands area of Nairobi, the capital city of Kenya. Located in Masari road region, the development comprises seven levels of supermarkets, restaurants and retail stores. It also has an additional eight level of SoHo (Small Office, Home Office) apartments.

11 Shalimar Mall, Lucknow India
Lucknow is a renowned multicultural city that has come to be known as a hub for artisans apart from being an important centre for governance, administration, education, commerce and much more. Adding to the vibrancy of this city, the Shalimar mall hosts a high-end shopping complex, hypermarket, food courts with multi-cuisine specialty restaurants, a multiplex and a bus station. The Shalimar mall was designed using state of the art technology available and Ramboll was the MEP consultant for this project.

12 Indiabulls Sierra, Vizag India
This residential project is near the sea, and Ramboll was appointed as the MEP consultant to this 14-floor residential tower project. The 70m high Indiabulls residential complex in Vishakhapatnam, Andhra Pradesh spans a built-up area of 92,900 sqm. The project is designed to be equipped with modern amenities like a clubhouse and a central landscaped garden. This project is centrally accessible to the IT hub in the city and is near all the essential amenities like schools and medical facilities.

13 Kalinganagar township, Odisha India
Kalinganagar is a planned industrial town and is significant because it is rich in iron ore resources. Kalinganagar is becoming a global hub for steel, power and ancillary products. A residential township spread over an area of 202,343 sqm was developed in Odisha’s Kalinganagar by Tata Steel Ltd. Ramboll was appointed to provide multiple services like MEP, Structural engineering and other engineering services. The scenic Kalinganagar in Odisha is projected to form an affluent township in the area.
**PEER REVIEW**

In alignment with Ramboll’s endeavour to constantly deliver high-quality services and provide client-centric solutions, Ramboll’s experts also undertake peer reviews. Peer reviews entail discussions on potential issues involved in a project while the proposed development is still in the design phase. A project peer review team gives additional attention to detail beyond the basic procedures performed.

A peer review is done to improve the overall quality of the project by discussing independent analyses of the designs. It begins after the contract for the project has been awarded but before the preparation of the various drawings pertaining to the project.

A peer review includes assessing design-basis reports prepared by the consultants, evaluating the soil investigation reports, carrying out necessary value engineering or cost saving by evaluating the reinforcement drawings and suggesting alternate designs that can comply with basic minimum requirements of Indian Standard (IS) Codes. The reviewers also examine Extended Three-dimensional Analysis of Building Systems (ETABS) model and share a comprehensive feedback report with the clients.
18 KRC Towers, Mumbai India
K Raheja Corporation (KRC) has developed a 200m high residential tower in Worli area of Mumbai, for which Ramboll was appointed to conduct the peer review. Ramboll’s team checked the overall structural stability of the tower, apart from assessing its design and the expert reviewers suggested that the structural engineering consultants for the project undertake wind tunnel testing for the tower. The design of the tower enables sea views from all premium areas of the apartment like living, dining, master bedroom and children’s rooms.

17 Taj Dwarka, Delhi India
Located in Delhi, Taj Dwarka has floating hotel floors above a transfer floor. The client, Indian Hotels, appointed Ramboll as the peer review consultant for this prestigious project. Owing to Ramboll’s design review of the project, an additional usage of 1,240 cubic metres of concrete and 100 tons of steel was avoided.

16 VGS Jaladhara, Mumbai India
Ramboll carried out peer review for a 149m residential building in Goregaon, Mumbai. The building, VGS Jaladhara, comprises of a ground floor, two podiums, 31 typical floors and a terrace.

17 Infosys software development block, Hyderabad India
Ramboll is proud to work in partnership with RMZ Group’s project in Bengaluru in developing their land parcel for setting up office space complexes for IT companies. With the IT boom in India, Bengaluru has become the host to offices of the global multinational companies. Eco world is an IT park, providing international standard office space for this flourishing IT industry. Emphasis has been placed on the sustainability aspects, and it is a LEED Gold certified project. The masterplan area covers over nine hectares. Ramboll is the structural consultant for the RMZ Eco world project. The construction of the towers is being done in four parts to enable better control on design, coordination and construction.
PROJECT MANAGEMENT
Successful infrastructure projects are a result of efficient management of numerous challenges that come along the way. The challenge resolution process often involves continuous coordination with clients, end users, public authorities, planners and contractors.

At Ramboll, we supply project and construction management services for all types of building, industrial and civil engineering projects. Our suite includes a number of services - construction management, project programming, design management, procurement/purchasing, installation management, quality management, inspections, time and cost control, risk analysis, construction supervision as well as project scheduling among others.

Our project managers are extensively trained on Ramboll’s Project Excellence framework and will utilise these specially developed standardised tools and procedures.

The Project Excellence life cycle includes six distinct phases of Project Management, starting with Capture then continuing with Tender, Planning, Execution, Close and finally Benefit Realisation. Practical processes support each phase, based on internationally recognised standards and best practice developed by our experts. The processes will be used throughout the project from Capture to benefit realisation. The tools that are used within the processes are scalable and generic and are provided so that they can be used to match the specific characteristics of any project.

The Project Excellence life cycle is used across the Ramboll Group. This means that clients can expect consistency in approach, the highest standards and the best results regardless of the project size, type, location or project level.

GLOBAL EXPERTISE
Apart from the projects mentioned in this document, Ramboll has an impressive project portfolio across sectors and in different capacities. Globally, we also have extensive experience in providing architectural services, facade engineering, facilities management, landscape architecture, master planning and other specialist services in Buildings. Its regardless of the project size, type, location or project level.
Scania is one of the world’s leading manufacturers of heavy trucks and buses, wanted to establish a local production centre in India as part of their business expansion. Ramboll was chosen to partner with Scania for this important project and we engaged with the client from the initial stage of the project to prepare the budgetary, costing support and estimation of timelines for the establishment. Ramboll was engaged as the principal consultant to provide all building services, including architectural, civil, structural, mechanical, electrical and plumbing as well as project management in relation to the development of the centre. Ramboll assisted Scania in developing solutions that meet their stringent quality requirements in line with the local market conditions.
RECENT AWARDS

Over the years we have won hundreds of awards recognising excellence across all our services. Listed below are a few highlights of recent achievements.

01 MEP Middle East Awards 2019 - Mechanical Project of the Year, Hindu Temple, Abu Dhabi, UAE

02 MEP Consultant Awards 2018 - Structural Company of the year

03 Middle East Consultant Awards 2017
MEP Company of the Year

04 Construction Week Awards 2016
Project Manager of the Year

05 Middle East Consultant Awards 2016
Project of the year for The Green Planet
Highly Commended
Mechanical Project of the Year for The Green Planet
06 Structural Timber Awards 2015
Pioneer Award, UK

07 Green Gown Awards 2015
Built Environment Award for Crome Court, UK.

08 Structural Steel Design Award for Moorgate Exchange, London, UK.