SUSTAINABLE ARCTIC DEVELOPMENT

WWW.RAMBOLL.COM/RESOURCE-SCARCITY
THE ARCTIC’S LEADING CONSULTANCY

The Arctic is experiencing unprecedented interest from international companies looking to extract minerals, gems and oil, which is fuelling the economic and social development of countries straddling the region. Working with customers on mining, oil & gas, transport, buildings, energy, water, waste, and society-building initiatives, Ramboll combines an integrated multi-disciplinary engineering and management service with a strong commitment to delivering environmentally and socially responsible outcomes.

THE RAMBOLL GROUP
Ramboll is a leading engineering, design and consultancy company founded in Denmark in 1945. We employ close to 10,000 experts and have a significant presence in Northern Europe, India and the Middle East. With close to 200 offices in 21 countries we emphasise local experience combined with a global knowledge base. We constantly strive to achieve inspiring and exacting solutions that make a genuine difference to our customers, end-users and society as a whole. Ramboll works across the markets: Buildings, Transport, Environment, Energy, Oil & Gas and Management Consulting. www.ramboll.com

BUILDINGS
Ramboll’s design philosophy is to always make room for the human experience. As one of Europe’s top 3 buildings designers with decades of experience in the global market, we create visionary, sustainable and award-winning buildings that improve life for users and enhance the surrounding landscape. www.ramboll.com/buildings

TRANSPORT
Ramboll has been working on some of the world’s largest, most innovative infrastructure projects and is the leading consultancy in the Nordic market. We create value for transport authorities, contractors and local authorities by providing multidisciplinary technical excellence and minimising resource usage. www.ramboll.com/transport

ENVIRONMENT
As the leading environmental consultancy in Northern Europe and one of the top 20 globally, Ramboll’s environment experts advise customers across the water, buildings, transport, energy, oil & gas, and mining markets. We take a comprehensive view of each project to deliver solutions that are technically resilient, environmentally sustainable, and valuable to society. www.ramboll.com/environment

ENERGY
Ramboll is the global market leader in offshore wind, waste-to-energy and district heating consulting and the leader in Scandinavia for large-scale thermal power consulting. We also have a specialist competence in designing power transmission masts and offshore wind met masts. www.ramboll.com/energy

OIL AND GAS
Ramboll works with Oil & Gas customers to deliver advanced technical solutions that combine economic efficiency with stringent health, safety and environmental safeguards during the production and distribution processes. Working across the entire project cycle, we excel in offshore engineering and have designed structures for industry giants since the 1970s. www.ramboll.com/oil-gas

MANAGEMENT CONSULTING
Ramboll acts as a trusted partner to public administrations to create the insights needed to make informed strategic decisions that promote stronger societies. We also empower private sector customers with expertise and powerful management tools. www.ramboll.com/management-consulting

Source: Arctic Council Monitoring and Assessment Programme (AMAP)
With a 30 year proven track record operating in the Arctic, Ramboll is the region’s leading consultancy with unparalleled knowledge of the area’s sensitive natural environment, societal considerations, and special working conditions.

Ramboll offers customers impartial advice and an integrated multidisciplinary service that brings together engineering, design and management consulting expertise. This enables us to provide qualified guidance and support at every stage of the value chain – from strategy development to the execution phase.

We have a comprehensive understanding of the unique set up for authority handling at a local and regional level and we have forged strong links with bodies representing indigenous people in the Arctic region as well as Non-Governmental Organisations. Using our established stakeholder network across all European Arctic sub-regions, we guide customers through relevant approval processes and thereby minimise project risk.

The insights gained from living and working in the Arctic region ensures that our specialists deliver optimised as well as environmentally and socially responsible solutions.
OUR APPROACH

30 YEARS’ PROVEN ARCTIC EXPERIENCE
400 LOCAL EXPERTS
21 REGIONAL OFFICES

Meeting Arctic challenges
Ramboll helps customers address challenges in three main areas:
Climate – We develop solutions for the transport, buildings, industry, mining and energy sectors that are resilient to Arctic’s extreme climatic conditions.
Environment – Ramboll helps minimise human interference with the Arctic’s sensitive natural environment by leveraging world class competences in environmental impact assessments and water and waste management.
Society – To navigate stringent legal requirements and ensure the rights and customs of indigenous people are protected, Ramboll’s extensive Arctic network enables effective stakeholder management and authority handling.

Customer focus
We act as a strategic partner to cater for the specific needs of two main customer groups: international companies that are new to the Arctic and seeking to establish themselves in the region, and customers with operating experience in the Arctic that are looking to expand.

01. FAKKEN WIND FARM, NORWAY
Ramboll is supporting Troms Kraft Produksjon AS in the procurement of turbines for the 54MW Fakken onshore wind farm in northern Norway.

02. Our approach
We act as a strategic partner to cater for the specific needs of two main customer groups: international companies that are new to the Arctic and seeking to establish themselves in the region, and customers with operating experience in the Arctic that are looking to expand.

03. Meeting Arctic challenges
Ramboll helps customers address challenges in three main areas: Climate – We develop solutions for the transport, buildings, industry, mining and energy sectors that are resilient to Arctic’s extreme climatic conditions.
Environment – Ramboll helps minimise human interference with the Arctic’s sensitive natural environment by leveraging world class competences in environmental impact assessments and water and waste management.
Society – To navigate stringent legal requirements and ensure the rights and customs of indigenous people are protected, Ramboll’s extensive Arctic network enables effective stakeholder management and authority handling.

04. Customer focus
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05. Meeting Arctic challenges
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07. Meeting Arctic challenges
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RUBY MINE ENVIRONMENTAL ASSESSMENT, GREENLAND
Drawing on local knowledge from our Greenlandic operations and environmental expertise from specialists in Denmark, Ramboll is undertaking a comprehensive environmental study and impact assessment as part of the permitting process for a proposed ruby mine in western Greenland. Image: Danclimb

INTEGRATED MULTI-DISCIPLINARY SERVICE

- ENVIRONMENTAL IMPACT ASSESSMENTS OFFSHORE AND ONSHORE
- DEVELOPING SUSTAINABLE CITIES AND SOCIETIES
- WATER AND WASTE MANAGEMENT
- SOCIAL IMPACT ASSESSMENT
- AUTHORITY AND STAKEHOLDER MANAGEMENT
- PUBLIC-PRIVATE PROJECT COOPERATION
- ADVANCED ARCTIC TECHNICAL SOLUTIONS
HOW WE WORK

LOCAL PARTNER GLOBAL KNOWLEDGE

01. AIR+PORT, GREENLAND
Ramboll was the technical consultant for proposals to support future development in Greenland including a combined ‘super harbour’ and international airport outside Nuuk. Image: BIG – Bjarke Ingels Group and Tegnestuen Nuuk.

02. UMEÅ WASTEWATER PLANT, SWEDEN
Ramboll is performing the process design, environmental impact assessment and permit applications for an extension to Umeå wastewater treatment plant in Sweden, which will nearly double capacity to serve 200,000 households.

Specialists in the Arctic
Drawing on our longstanding presence in the Arctic, we build a bridge between projects, society, and regulators.

We appoint Arctic-based project managers that understand the local market and are specifically trained in effective project handling in an Arctic context. Our project managers are also adept at overseeing cross-border projects and drawing on competencies from across the Ramboll Group to provide customers with the very best specialist expertise.

Minimising project risks
Our “Front Loading” project management tool is particularly valuable in the Arctic since it enables us to assess political, environmental, process and technical risk at the very earliest stages of a project.
WORLD CLASS PROJECTS

01. HARPA CONCERT AND CONFERENCE CENTRE, ICELAND
The spectacular shape of Reykjavik’s unique new attraction was made possible using one of the world’s largest 3D models to develop the architectural and engineering designs – saving time and money. Harpa won the prestigious Mies van der Rohe architectural award in 2013. Image: Nic Lehoux.

02. HANNUKAINEN MINE, FINLAND
To facilitate production of iron concentrate, gold and copper, Ramboll is conducting environmental impact assessment reporting, and land use planning for the whole life cycle of the mine.
WORLD CLASS PROJECTS

01. POLARLED PIPELINE, NORWEGIAN NORTH SEA
   This unprecedented 481 km offshore pipeline will connect new fields in the Norwegian Sea with existing infrastructure to secure future energy supply to Europe. Drawing on extensive knowledge of subsea pipeline design and state of the art software, Ramboll specialists are delivering an optimised, innovative, and cost-effective solution.

02. BARENTS FREEWAY FEASIBILITY STUDY, NORWAY, SWEDEN, FINLAND, RUSSIA
   The EUR 1.4 million ‘Barents Freeway’ project will pave the way for cohesive and optimised future development of the transport network across the Barents region. Ramboll is part of the consultancy group led by Pöyry that has been appointed on the initiative.

03. SOCIETY BUILDING, GREENLAND
   To help the Greenlandic government in prioritising the country’s limited investment funds to areas that represent the best value for society, Ramboll is performing socioeconomic impact assessments and cost-benefit analyses on the expansion of the container harbour in Nuuk and increasing capacity in the education sector.