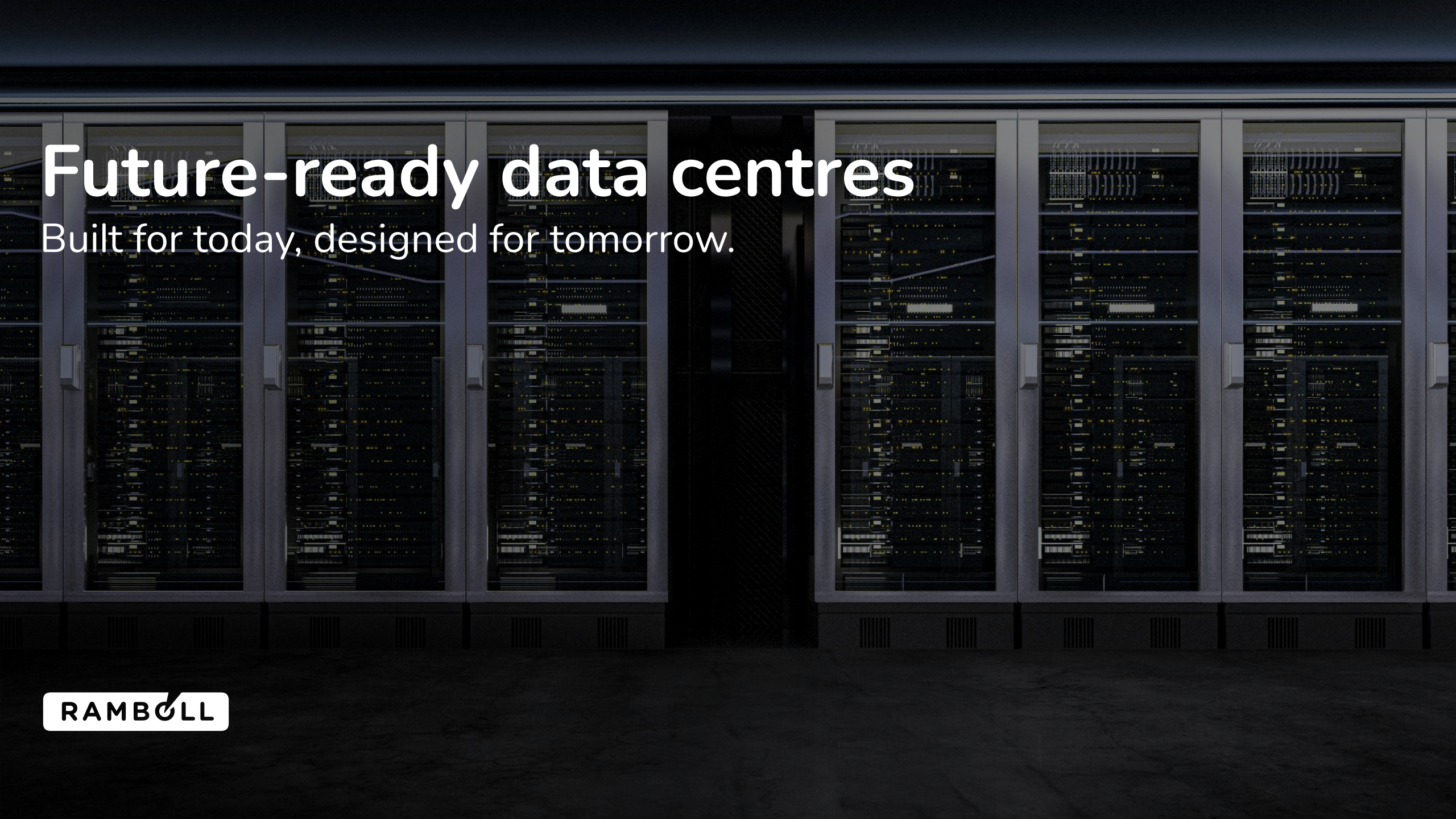


Future-ready data centres

Built for today, designed for tomorrow.

RAMBØLL

End-to-end data centre partner

Multi-disciplinary data centre consultancy solutions for full project lifecycle

Data centres are the engines of digital progress, enabling innovation, connectivity, and sustainable growth worldwide. As demand for secure, efficient, and climate-conscious infrastructure accelerates, we help clients build and operate facilities that meet today's needs while preparing for tomorrow's challenges.

With decades of expertise across diverse regulatory environments and technical landscapes, we deliver resilient, high-performing data centre solutions worldwide. Our services span the full lifecycle: from strategy and site selection, through design and engineering, to operations and optimisation.

By integrating sustainability, energy efficiency, and cutting-edge technology, our teams ensure cost-effective outcomes that balance performance with environmental responsibility. Whether hyperscale, colocation, or edge facilities, we partner with clients to create infrastructure that drives digital transformation and supports a connected and responsibly built future.

Data centre engineering in numbers

- More than 1,300 dedicated consultants with data centre capabilities working across the global sector.
- Ramboll has worked on over $60b+ of due diligence transactions and over 1,000 studies.
- Ramboll has designed and tested over 15 GW of data centre space.

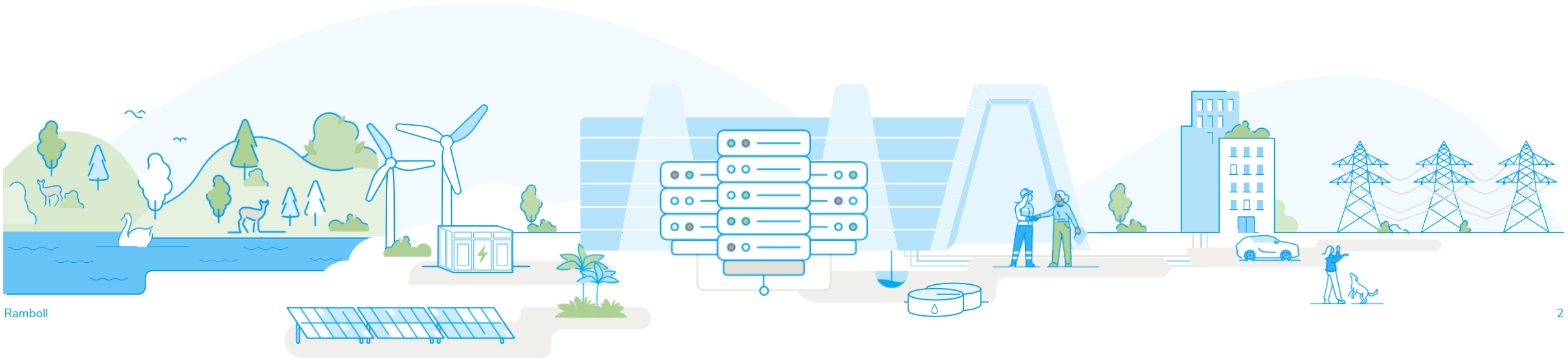
Site assessment and selection

Design and permitting

Construction

Commissioning and operation

Strategic planning



USA

TeraWulf

Turning a coal-fired power plant site into low-carbon digital hub

The challenge

Transform a former coal plant into a sustainable, high-capacity AI and HPC data centre while minimising environmental impact and leveraging existing infrastructure. The project required integrating advanced cooling technologies, meeting strict community standards, and ensuring compliance with environmental regulations. Additionally, the site needed to support rapid scalability for one of the largest low-carbon data centre developments in the US.

Our approach

Ramboll is partnering with TeraWulf to deliver end-to-end services across the full project lifecycle, including consulting, design, permitting, and commissioning. We're repurposing legacy transmission lines and industrial assets to avoid greenfield development and implementing direct-liquid cooling and closed-loop systems to reduce energy and water consumption. Our multidisciplinary team ensured compliance with noise and water stewardship standards while enabling efficient, low-carbon operations.

The result

The Lake Mariner campus operates on a low-carbon grid powered by nuclear and hydropower, with plans to integrate more renewable energy sources. The site has grown to over 360 MW of contracted capacity, supported by major investments like Google's $3.2 billion financial backstop and Fluidstack's multi-year colocation agreement. Ramboll's role positions us as a leading partner in sustainable data centre development, setting a benchmark for repurposing legacy infrastructure for the digital economy.

Read more >

95%

Zero-carbon power mix. Lake Mariner operates primarily on nuclear and hydropower.

360+

MW – total contracted capacity at Lake Mariner, making it one of the largest low-carbon data centres in the US.

Denmark

Meta

Meta: surplus heat to district heating

The challenge

Data centres generate large amounts of surplus heat that is typically wasted, contributing to energy inefficiency and carbon emissions. Denmark aimed to phase out coal by 2025 and needed a solution to decarbonise district heating while integrating renewable energy. The challenge was to recover low-temperature heat from Meta's hyperscale data centre and make it usable for Odense's district heating network.

Our approach

Fjernvarme Fyn appointed Ramboll as Owner's Engineer to design Denmark's largest heat pump installation; the Tietgenbyen Energy Centre. Ramboll handled design, tendering, construction management, and developed an operation strategy for surplus heat recovery and the chilled water pipe network. The system uses electrically driven ammonia heat pumps to raise the temperature to 70–75°C, enabling integration into the district heating network.

The result

The plant recovers 215,000 MWh of energy annually, providing heat to 12,000+ homes and reducing Odense's reliance on coal. It delivers 45 MW of heat capacity, powered entirely by wind energy, supporting Fjernvarme Fyn's goal of 100% renewable energy by 2030. The project sets a benchmark for pairing hyperscale data centres with district heating systems for large-scale carbon reduction.

Read more >

215,000

MWh per year of surplus heat recovered from Meta's data centre.

12,000+

Homes supplied with heat in Odense.

45

MW pump capacity, the largest in Denmark.

Global

DigitalBridge

Supporting global data centre portfolio acquisition

The challenge

DigitalBridge sought to acquire Yondr Group, a leading global developer and operator of hyperscale data centres, through one of its managed investment funds. The transaction involved assessing 12 data centres across the Americas, Europe, and Asia-Pacific, including operational, under-construction, and proposed sites. The challenge was to deliver comprehensive due diligence across technical, ESG, and environmental, health and safety (EHS) domains within tight timelines for a high-value global deal.

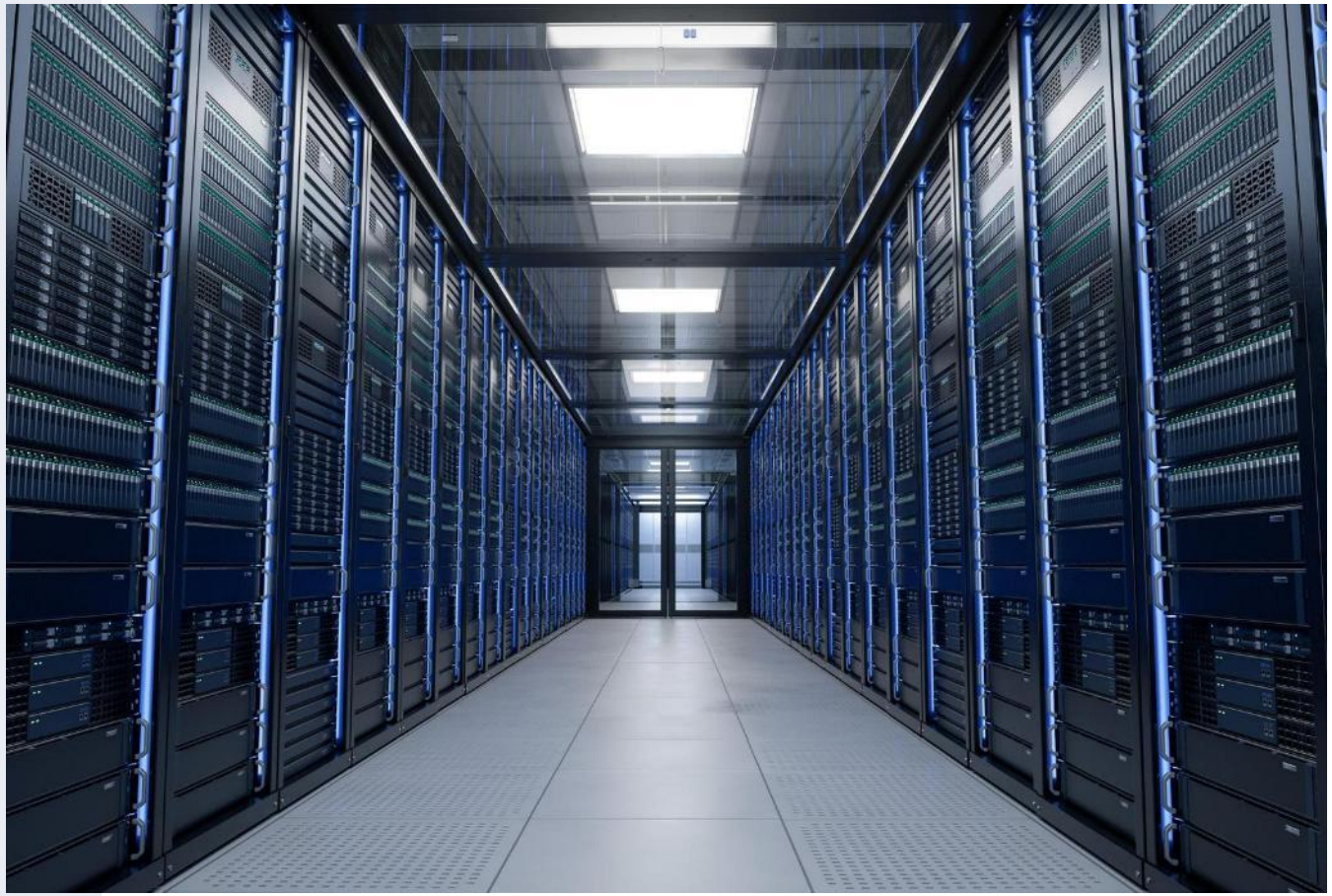
Our approach

Ramboll provided multidisciplinary due diligence support, including ESG and EHS assessments. Our team also conducted technical evaluations of mechanical, electrical, and plumbing (MEP) systems, infrastructure performance, and construction risks. The process included vendor data room reviews, Q&A sessions, site visits, and interim reporting to ensure transparency and informed decision-making.

The result

DigitalBridge successfully acquired Yondr Group, strengthening its global data centre portfolio and investment strategy. Ramboll's seamless collaboration across global teams delivered actionable insights on compliance, risk mitigation, and efficiency opportunities. This project reinforced Ramboll's position as a trusted advisor for complex, high-stakes transactions in the data centre sector.

Read more >



12

Data centres assessed across three continents.

$5.8B

Total transaction value for the acquisition.

420

MW committed capacity acquired across the portfolio.

North America and Europe

Confidential client

Comprehensive EHS support to global data centre client

The challenge

A global colocation data centre developer, with locations in North America, Europe and Asia needed consistent environmental, health and safety (EHS) support while expanding into new markets. The challenge was to manage complex and evolving regulatory requirements, site development risks, and operational compliance for a rapidly growing portfolio. Sensitive timelines and biodiversity considerations added further complexity.

Our approach

Since 2015, Ramboll has acted as the client's primary EHS partner, providing advisory services during site selection and development, including contamination risk, permitting strategies, and climate risk assessments. We supported operational compliance through air emissions reporting, spill plans, hazardous materials management, and standardised procedures. Ramboll also delivered innovative sustainability solutions, such as achieving a biodiversity net gain of 50% at a UK site and integrating bat habitats into design.

The result

Ramboll's long-term partnership enabled the client to expand globally while maintaining compliance and advancing sustainability goals. Our proactive approach mitigated risks, protected sensitive habitats, and ensured projects met strict timelines. This collaboration exemplifies Ramboll's ability to act as an extension of client teams, delivering consistent EHS excellence across diverse projects and geographies.

10+

Years partnership. Continuous EHS support since 2015 across three continents..

50%

Biodiversity net gain achieved at UK site against a minimum target of 10%.

Read more >

Bright
ideas.
Sustainable
change.

RAMBØLL