



# Sustainability Case Studies

## CASE STUDY

# Bernheimer Architecture (BA)

DIVISION  
Design Management



## Digital tools to visualize and reduce carbon footprint of buildings

Symetri, part of the Design Management division, is collaborating with BA to help reduce and visualize embodied carbon in building materials through digital tools.

BA was looking for digital tools that could visualize embodied carbon in the materials chosen for River Commons, an affordable housing project in New York. BA also wanted to offer a lifecycle assessment that reports global warming parameters and identifies the parts of a building with the largest carbon footprint.

### NEED

BA needed digital tools to visualize embodied carbon in building materials, and to offer a lifecycle assessment that reports global warming parameters.

### SOLUTION

Symetri supported BA with tools to visualize embodied carbon in the materials chosen for River Commons. With the tools, BA was also able to produce a comprehensive lifecycle assessment with a good overview of the building's total carbon footprint by utilizing software such as Autodesk Revit, BIM Collaborate Pro and Navisworks.

### SUSTAINABLE BENEFITS

By reducing the high level of carbon emissions in the early phase of a construction project, it is possible to influence the total carbon footprint of a building throughout its lifetime.

**Symetri** creates and provides digital solutions and services for design, engineering, construction, and manufacturing businesses. Symetri empower people to work smarter for a better future by ensuring they have access to the expertise and technology they need to improve their performance and sustainability.

**Bernheimer Architecture** is an architect studio based in New York City, USA, that is committed to designing sustainable and resilient architecture. They provide full architectural design, construction administration and planning-and-zoning analysis services.

CASE STUDY

# Aeristech electric motors

DIVISION  
Product Lifecycle Management



## Improved R&D and production efficiency

Technia, part of the Product Lifecycle Management division, has supported Aeristech, a manufacturer of electric motors with high power density, in the transition from R&D to prototype and mass production.

Aeristech plan to accelerate the hydrogen fuel cell electric motor production to reach the market sooner. When Aeristech faced challenges with product development efficiency and lack of control systems, they reached out to Technia for assistance.



### NEED

Aeristech needed to overcome challenges related to the lack of control systems in their product development processes.



### SOLUTION

Technia assisted Aeristech by providing the Dassault Systèmes' 3DEXPERIENCE platform and SOLIDWORKS software. Once these tools were implemented, efficiency increased and collaboration within the product development organization improved. Aeristech can now transition more quickly from R&D to prototyping new products.

### SUSTAINABLE BENEFITS



The new digital tools will help enable Aeristech's products to reach the market sooner, thereby allow Aeristech to contribute to reducing GHG emissions and advancing global net-zero goals.

Technia is an Addnode Group company, a global provider of solutions for digitalizing product lifecycles – from idea, design, simulation and manufacturing to sale, aftermarket, and repurposing. For the customers, the benefits are shorter lead times, greater innovation, and increased efficiency and traceability, making product creation sustainable.

Aeristech specializes in producing the world's fastest accelerating electric motors with high power density. These motors can also be used with hydrogen fuel cells which do not produce carbon emissions during operation.

CASE STUDY

# Trafikverket Färjerederiet

DIVISION  
Process Management



## Voice-based booking system optimizes ferry traffic

Voice Provider, in the Process Management division, has developed a voice-based booking system for the Swedish Transport Administration's ferry operations (Trafikverket Färjerederiet), which operate cable ferries across Sweden.

Trafikverket Färjerederiet's goal is to be climate neutral by 2045, which meant that ferry journeys needed to be optimized to reduce their carbon emissions. The solution came in the form of a new booking system that was simple and easily accessible and did not reduce the availability of ferries.

### NEED

Trafikverket Färjerederiet needed to optimize ferry traffic in order to reduce carbon emissions without reducing the availability of the ferries.

### SOLUTION

Voice Provider supported Trafikverket Färjerederiet with a new booking system that was simple and easily accessible. Voice Provider's advanced voice-recognition technology now enables on-demand booking of ferries by phone, thereby reducing the number of trips without compromising on service.

### SUSTAINABLE BENEFITS

In addition to reducing environmental impact, Voice Provider's technology also provides the ferry company with data to identify where the ferries are needed most. This in turn leads to other attractive operational improvements, such as reduced workload, fewer interruptions and improved working conditions for the crew.

Voice Provider is an Addnode Group company in division Process Management. At Voice Provider, innovative technology meets behavioral science to create solutions that put the customer's needs in the center.

The Swedish Transport Administration's ferry operations (Trafikverket Färjerederiet) operate cable ferries across Sweden. Sweden's cable ferries transport some 12 million vehicles per year and are particularly important for traffic in sparsely populated areas.