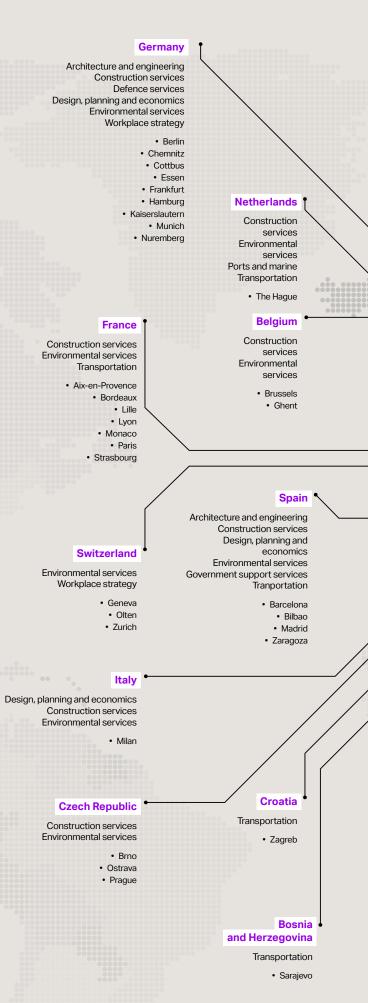
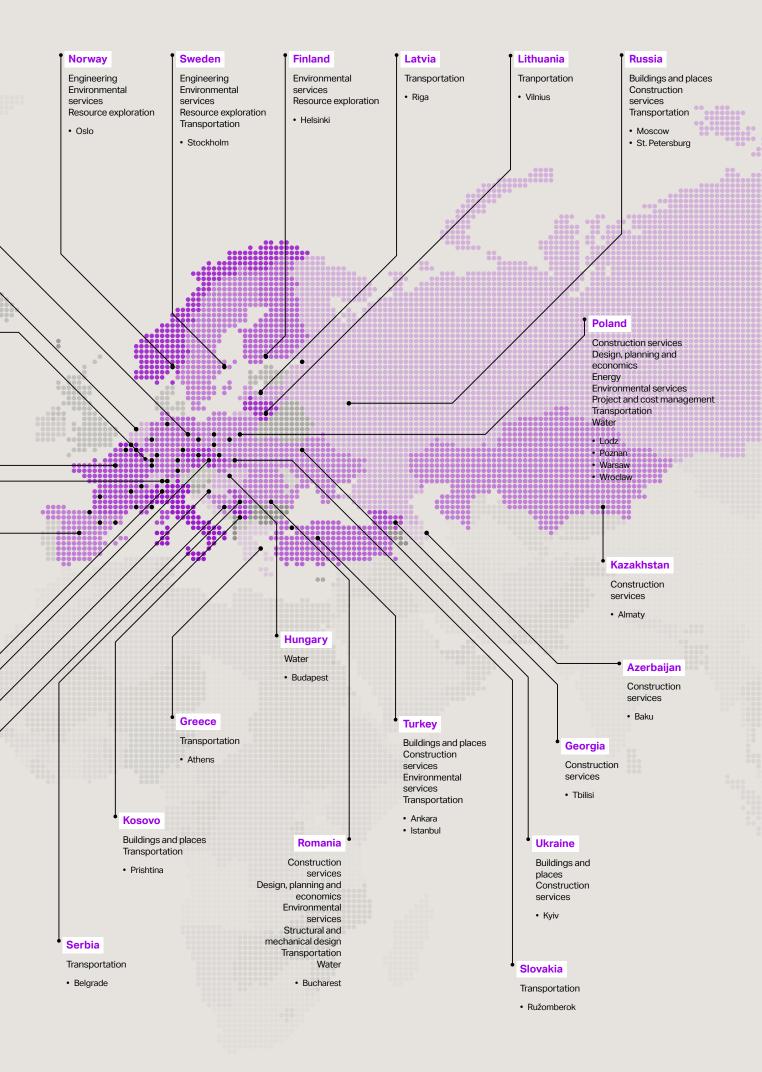
# **About AECOM**

AECOM is built to deliver a better world. We design, build, finance and operate infrastructure assets for governments, businesses and organizations in more than 150 countries. As a fully integrated firm, we connect knowledge and experience across our global network of experts to help clients solve their most complex challenges. From high-performance buildings and infrastructure, to resilient communities and environments, to stable and secure nations, our work is transformative, differentiated and vital. A Fortune 500 firm, AECOM had revenue of approximately \$17.4 billion during fiscal year 2016. See how we deliver what others can only imagine at aecom.com and @AECOM.

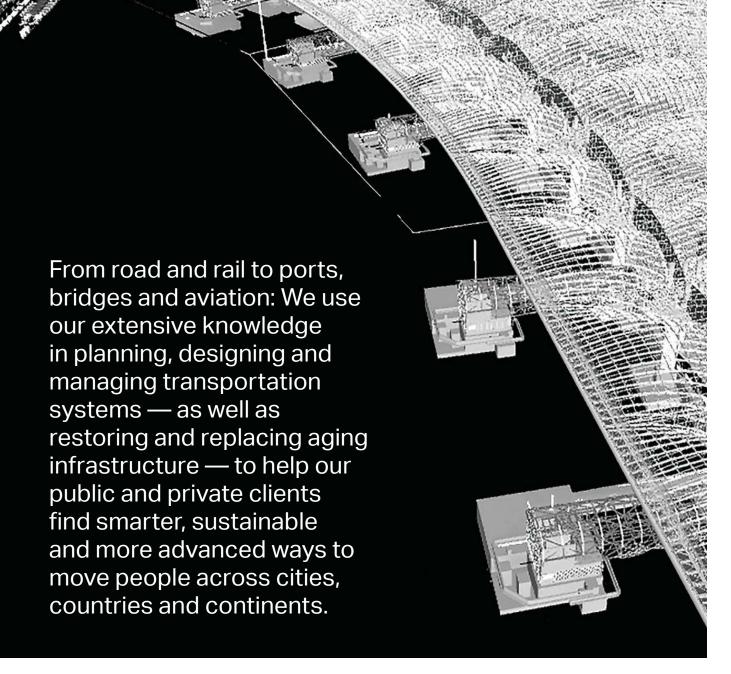






# Delivering transformational outcomes

**Nordic region** 



Our integrated approach, social responsibility and unwavering commitment to safety have earned us the trust of local municipalities, government agencies, commercial clients and public-private partnerships. Our expertise, cross-border collaboration and global reach enable us to deliver high-quality solutions for our clients that pave the way for long-lasting benefits to society.

With a focus on Sweden, Finland and Norway — where AECOM has been operating for over 20 years — we strengthen and transform Nordic infrastructure and deliver extensive environmental services. From our main office in Stockholm, we orchestrate both areas, and provide local and international experts, enabling us to understand the complexity of our clients' challenges and help them see further .

## Services:

- Mine scoping, planning and permitting; tailings / waste facility design; mine decommissioning and closure; resource exploration management.
- Preliminary and detailed road, rail, bridge and tunnel design
- Project management and contract procurement
- Water and drainage design
- Transportation planning and traffic modelling
- Geotechnical and rock engineering
- Landscape architecture
- 3D / BIM / ProjectWise
- Environmental services









## Grängesberg Iron Ore Complex, Sweden

Located in the mineral-rich Bergslagen district in central Sweden, the Grängesberg iron ore mine was once the third largest in Sweden before its closure in 1989. With significant amounts of iron ore remaining on the site, we conducted a pre-feasibility study and geotechnical assessment to determine the mine's stability, and likely profitability of reopening it.

We also assessed the site's hydrology, power and infrastructure requirements, and conducted economic and financial appraisals. Through our work, the client, Grängesberg Iron AB, was granted a mining concession by the Swedish Mining Inspectorate in May 2013 — an important milestone towards reopening the historic mine.

# E4 Ljungby-Toftanäs, Sweden

The E4 highway project is one of the largest road schemes commissioned in Sweden this decade. The E4 highway is a key route that links the Danish border in the south of the country with the Finnish border in the north.

AECOM redeveloped a 31-km section of the E4 highway between the towns of Ljungby and Toftanäs as part of a major contract for Trafikverket, Sweden's national road and rail administration. Work included extensive and advanced Building Information Modelling (BIM), widening the road to meet Swedish expressway standards, delivery of preliminary and detailed designs and site monitoring.

# Rock Cavern Environmental Investigation and Remediation, Finland

In 2013, we supported Shell to exit a site in Helsinki that included an aboveground oil storage/blending facility, and two vast underground storage caverns, each with a total volume of 280,000 m³. We performed a variety of environmental investigation and remediation tasks, including developing a conceptual site model, delivering a structural geological survey and performing risk analyses of vapour migration and bedrock groundwater.

Our experts monitored and sampled groundwater and surface water, conducted a remedial feasibility study, and negotiated with regulatory agencies and government entities on the client's behalf. The successful remediation of aboveground soils – approximately 120,000 tonnes - took place between 2011 and 2013.

# Atmospheric Watch Observatory, Greenland

Summit Station, at the top of the Greenland ice cap, is a scientific research station home to the Greenland Environmental Observatory. It is designed to provide year round state-of-the-art laboratory facilities for atmospheric and snow chemistry research.

The energy efficient, aerodynamic design maximises flexibility to suit the ever-changing needs of the scientific research. Features include hydraulic legs to help the module climb above the rising snow levels, highly insulated glass fibre cladding and integrated photovoltaic arrays. It is the third joint triumph for AECOM and Hugh Broughton Architects in the cold regions, firmly establishing both companies as world-class leaders in the design of facilities for polar research.







# Shell Stornes Tank Depot, Norway

The municipality of Hammerfest was the centre for natural gas development in Norway until the Shell Stornes tank depot, an 80,000m² arctic petroleum storage facility, closed in 2009. Shell retained AECOM to develop the exit strategy, and our experts planned, tendered, and undertook the demolition and remediation work of the site.

Demolition began in May 2013, during which we safely removed 13 buildings (including filling stations, pump rooms and warehouses), 18 deep tanks — one with a capacity of 9,990m³ — five smaller tanks and a large number of pipelines and tank foundations. Our team excavated over 13,000 tons of soil, of which 8,330 tons of petroleum-impacted soil was prepared for off-site biotreatment.

# Transport Sector PFAS Study, Sweden

Studies show that PFAS — a collective name for over 800 chemicals used in a range of products, including firefighting foam — might pose a serious threat to humans and the environment. In Sweden, over 1,000 areas are potentially contaminated. In August 2016, the Swedish Transport Administration asked us to conduct a survey of the Swedish transport sector to check for PFAS. Local environment, health and safety consultants, supported by our PFAS Technical Practice Network, carried out the work.

Our team identified various activities within the rail, road and aviation sectors that potentially used products that contained PFAS. We are studying these areas further as the project enters the next phase.

# E4 Stockholm Bypass, Sweden

The Stockholm Bypass is a 21-km, dual, threelane motorway — with 18 km of tunnels — that will connect Stockholm's north and south, greatly relieving traffic congestion across the city. AECOM's use of Building Information Modelling (BIM) has been key to managing the complexities of this mega infrastructure project.

Through BIM, we created integrated 3D models of the bypass before and during construction, leading to more precise and higher-quality design. BIM allowed us to link project information and systems across disciplines, teams and countries, driving efficiencies and collaboration. In 2013, we won the Innovation in Roads category at the Bentley Be Inspired Awards for our innovative use of BIM on the project.