



Airports become cities

Innovative airport development focusing on sustainability
and customer experience



Tauw

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Growing number of passengers, increasing air traffic and constant pressure from the continuous development and growth of legal demands in relation to sustainability: airports must grow to keep up. This means growth through upgrades and the expansion of existing sites and by building completely new airports. Passengers expect an airport to provide the very best customer experience. Entering an airport should be like entering a city: an efficient and safe city with, for example, short walking distances, the newest (biometric) technologies and a friendly atmosphere. Which airport doesn't want to minimize their environmental impact, be in compliance with local and international laws and regulations and wants to meet the expectations of their customers?

The aviation sector not only deals with a large number of passengers, the government and the environment. They are involved in major environmental issues, such as climate change, efficient use of raw materials and air quality, over which they can exert a significant influence, both voluntarily and involuntarily.

Innovative improvements

To meet the demands of the airports themselves, the passengers, the environment and the government, and to keep track of the ongoing development of the sector, additional attention and continuous improvement is both required and inevitable. Whether it's a relatively small project like improving the baggage handling or an enormous challenge such as building a completely new airport, Tauw adds value.

Added value through experience

Tauw specializes in giving advice to new and existing airports on their development. We strive for sustainable solutions, suitable for both today and the future. Through our involvement in the (re)development of several of Europe's largest airports, we are well-known in the aviation sector. Our strength is our involvement in the complete process or in specific aspects of the (re)development, expansion, growth, maintenance and compliance management. We have been working with airports and aviation fuel suppliers for decades. We provide innovative solutions by working together and utilizing the experience of our specialists. A strong understanding of the current situation and any local constraints enables us to provide projects with visionary solutions. Our clients include national and international airports, such as Amsterdam Airport Schiphol, Bonaire International Airport and Frankfurt Airport. We are able to provide a wide range of services for all airports in the areas of soil, civil engineering, health & safety and compliance management.

Integrated solutions for soil and the environment

We are proud to work with many different types of airports, spread across Europe. A good example is the innovative soil and ground radar research for Eindhoven Airport (the Netherlands) to map the underground infrastructure necessary to engineer new drainage and sewer systems. This was carried out in close cooperation with the construction partners and local government, including the municipality of Eindhoven and De Dommel Water Board.

Munich Airport in Germany was extending and in need of a new landing strip. Large-scale soil replacement was necessary due to the geography. More than 3,000 soil samples were evaluated. The results were presented using a 3D model of the arsenic distribution. Financial and logistical precluded replacing such a large amount of soil. Therefore, a detailed soil management plan was designed for different levels of arsenic concentration. A concept to re-use the soil on the premises, including solutions for integration with the environment, such as visitor hills and noise protection embankments, was approved by the authorities.



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We are able to provide airports with

Sustainable and future proof solutions

Best service and capabilities

Custom made advice

Decades of experience

Global thinking, local actions

Clients

International airport clients

- Bilbao Airport (Spain)
- Bonaire International Airport (Bonaire)
- Breda International Airport (the Netherlands)
- Den Helder Airport (the Netherlands)
- Eindhoven Airport (the Netherlands)
- F.D. Roosevelt Airport (St. Eustatius)
- Frankfurt Airport (Germany)
- Groningen Airport Eelde (the Netherlands)
- Juancho E. Yrausquin Airport (Saba)
- Maastricht Aachen Airport (the Netherlands)
- Schiphol Amsterdam Airport (the Netherlands)
- Teuge International Airport (the Netherlands)
- Rotterdam The Hague Airport (the Netherlands)
- Vigo Peinador Airport (Spain)
- Zurich Airport (Switzerland)

National airport clients

- Beek Airport (the Netherlands)
- Hilversum Airport (the Netherlands)
- Lelystad Airport (the Netherlands)
- Former Bergen Airport (the Netherlands)
- Former Twente Airport (the Netherlands)
- Former Ypenburg Airport (the Netherlands)



What we do

Tauw services for airports



Soil

- Soil & groundwater investigation
- Soil management
- Soil remediation design
- Soil remediation supervision
- Soil risk assessment



Water

- Water management plan
- Disconnecting storm water
- Drainage advice sewer construction
- Wastewater monitoring
- Sediment sampling
- Storage and drain water systems



Environment

- Environmental permits
- Environmental due diligence
- Environmental impact assessment
- Consulting services Nature conservation legislation (ecology)



Compliance management and advice

- Management systems
- Health and Safety
- Permits
- Air advice
- Environmental Impact Assessment
- Emission monitoring
- Wastewater monitoring
- Noise & vibration
- Asbestos advice
- Ecology
- Soil



Civil

- Civil technical supervision
- Asbestos remediation preparation and supervision
- Groundwater monitoring
- BRA (soil risk analysis)
- Cost estimation soil remediation and civil projects
- Asphalt survey
- Legal advice
- Dust survey
- Geotechnical consulting in the design of a road
- Foundation advice
- Pavement advice
- Engineering extension runway
- Demolition survey
- Construction supervision
- BREEAM consultancy and certification
- Cables and pipes

Other

- Asbestos survey
- Sewage engineering
- Environmental impact assessment
- QRA (quantitative risk analysis)
- Acoustic research and advice
- Air quality consultancy
- Exposure measurements
- Compliance consultancy
- Fire safety assessment
- Project management
- Evacuation plan
- Development plan
- Data management (GIS/ Soil data C management system TEGSIS – TEGSIS.com)
- Redevelopment plan
- HSE Auditing
- UXO consulting
- Systems Engineering
- Risk management



Tauw

Who we are

Tauw is an independent European consulting and engineering company - with over 1,000 employees - specialized in the design, improvement and management of the natural environment, the built environment and infrastructure.

Our multidisciplinary teams are involved in projects for a broad range of clients from public authorities to private companies and non-governmental organizations. We focus on the needs of our clients. This requires a thorough understanding of their expectations. We deliver high quality goal-oriented advice in good time. We strive for long-term and mutually beneficial relationships with our clients, based on value creation.

Client knowledge

Tauw puts a lot of effort into maintaining long-term relationships with a wide variety of clients. This enables us to assist our clients in their planning both as a consultant and as a business partner. Our clients can rely on our professional judgement in predicting the effects of new legislation and regulations. We can help them to prepare for and understand the consequences in advance.

Offices in Europe

Tauw has European coverage with branches all over Europe.



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Projects

Catania International Airport (Sicily, Italy)

Project scope

- New 3,200 metre long runway
- Increase Pax from 7M to 14M p/y
- Increase aircraft operations from 58K to 101K per year

Our role

Evaluate environmental impacts on air quality and noise

Main capabilities

- Airport layout construction (terminal and gate areas, apron, taxiway, runway and flight path)
- Input of Operational profile (annual and daily operations, aircrafts and engines, gse)
- Calculation of Emissions Inventory and Emissions Dispersion (with US EPA AIRMOD SW)
- Calculation of ground levels of aircraft-generated Noise (daily and day-night average)

Airport Munich (Munich, Germany)

Project scope

- Soil management for the construction of a landing strip
- Geotechnical reasons meant that large scale soil replacement was needed in the area of a planned new landing strip.

Our role

Evaluation of more than 3,000 soil samples and creation of a 3D-model of the arsenic distribution, followed by a detailed soil management plan. Includes a concept for re-using the soil, innovative containment solutions such as visitor hills and noise protection embankments.

Main capabilities

- Environment integration solutions
- Solving an ecological and logistical issue

Contact

Laurent Bakker

Director Soil and Groundwater

+31 (0) 65 15 72 46 1

laurent.bakker@tauw.com





**Sustainable solutions
for a better environment**



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www.tauw.com