



Design and Construction Supervision Rehabilitation of R-18, Azerbaijan



Design and Construction Supervision New Landfill Site Korca, Albania



Bridge Inspection according to DIN 1076, at Highway B 49 Wetzlar

## KOCKS

INGENIEURE

Comprehensive Engineering Solutions - worldwide since 1946

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Design and Construction Supervision for Sewer Transfer in Frankfurt/Main



Building Information Modeling



Design and Construction Supervision for Development of Building Area Schänzchen III, Hochheim/Main

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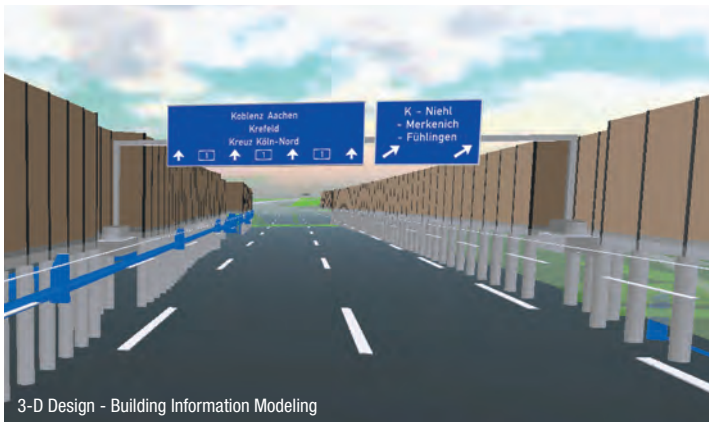
People throughout the world have rising expectations regarding the development of their quality of life. Likewise and in tow with this, the sense of responsibility to fair better for society and the environment is growing in many economic, industrial and political sectors. Technology, globalization and networking are advancing on a daily basis. Tasks and requirements are subject to constant change.

Since its founding in 1946, KOCKS ENGINEERS have been committed to performing sophisticated infrastructure assignments with high responsibility in dynamically changing environments. With sound, quality-assured services KOCKS ENGINEERS provide clients with comprehensive solutions and support them both in the implementation of their tasks and the consolidation and development of their market position. Through their performance, KOCKS ENGINEERS aim at contributing to an improved quality of life and the value-based development of economic hubs and businesses.

Today, KOCKS ENGINEERS focus on the sectors of water supply and disposal, transport infrastructure, industrial construction as well as environment and waste management. Since 2015, KOCKS ENGINEERS have developed their knowledge in 3D planning towards Building Information Modeling (BIM) oriented planning processes. KOCKS ENGINEERS satisfy engineering consultancy requirements of public clients, internationally financed technical and financial aid projects and many clients from industrial and private backgrounds worldwide.

The key to KOCKS ENGINEERS' and our clients' success lies in the high individual competency and professionalism of our project leading engineers coupled with interdisciplinary cooperation of quality-committed teams that assist our clients throughout the whole project and onwards after completion. Strategic partnerships with like-minded professional partner companies complete this portfolio on an international scale.

Today, about 200 engineers, technicians, scientists, economists and other experts closely related to the construction sector provide consulting services from currently eleven branch offices and construction sites in over 30 countries worldwide. KOCKS ENGINEERS are registered with most international financing institutes and operate an integrated risk and quality assurance management system. KOCKS ENGINEERS have been continuously certified according to current ISO 9001 since 2006. Dedicated health and safety, business integrity and data protection management systems complete our professional approach.



**Building Information Modeling**

Combining and coordinating the BIM activities of the Transport, Drainage, Civil Engineering, Infrastructure and Mechanical Engineering departments of KOCKS ENGINEERS.

**Services KOCKS ENGINEERS**

- 3D modeling of single objects;
- Combining single objects to joint models;
- Attribution (geometry, materials, costs);
- Collision checks within the joint model;
- Establishment of harmonised processing methods.

**Technical advice for construction of WWTP Umm Al Hayman, Kuwait**

Construction of a wastewater treatment plant at Umm Al Hayman with a treatment capacity of 500,000 m<sup>3</sup>/d or 1,700,000 PE. Donor-financed BOT model including financing, planning, construction and operation of the WWTP.

**Client** WTE Wassertechnik, Essen

**Financing** Multi-donor international banks

**Services KOCKS ENGINEERS** Technical advice to the banks. Engineering due diligence and risk assessment of the project.



Bridge over the river Kura

**Rehabilitation of 5-span steel bridge crossing river Kura, Azerbaijan**

Increasing load capacity and rehabilitation of the load-bearing structure and abutments of the bridge originally constructed in 1992. Rehabilitation of the superstructure and ramps of the 315 m long bridge crossing the river Kura on the road from Baku to Iran.

**Client** State Agency of Azerbaijan Automobile Roads

**Finanzier** World Bank (IBRD)

**Services KOCKS ENGINEERS** Consulting advice during the planning stages. Design review, tendering, construction supervision and acceptance.

**Sanitary landfill Kharkiv, Ukraine**

Construction of a new sanitary landfill covering an area of approx. 14 ha, including new sorting and leachate treatment plants. Closure of an old landfill area of approx. 12 ha.

**Client** Municipality of Kharkiv / Municipal Company for Waste Management

**Financing** World Bank (IBRD)

**Services KOCKS ENGINEERS** Supervision of landfill extension works. Rehabilitation and closure plan and supervision of closure works. Tender evaluation, assistance in procurement, design, tendering and assessment of additional leachate treatment plant.



Base sealing construction



Noise measurement at R-32

**Noise and vibration study along the regional road R-32, Azerbaijan**

Rehabilitation of 70.5 km two-lane regional road (R-32) between the cities Ujar and Agjabaedi.

**Client** National Road Authority

**Financing** Asian Development Bank (ADB)

**Services KOCKS ENGINEERS** Study of noise and vibration impacts during construction and operation. Identification of sensitive areas, noise and vibration measurements, spreading calculations and recommendations for protection measures.

**Climate mitigation measures for infrastructure investments in Mozambique**

Development of strategies and training of government experts in terms of how to consider the consequences of climate change in infrastructure planning processes.

**Client** ANE (National Road Administration of Mozambique)

**Financing** Nordic Development Fund (NDF)

**Services KOCKS ENGINEERS** Consulting and assistance in: design review, revision of guidelines, vulnerability assessment and implementation of construction works.



Passage through Lichinga, Mozambique © Finnish Overseas Consultants Ltd.



Kick-off Meeting in Belgrade

**Waste management consultancy Serbia**

Preparation of two feasibility studies for investment measures in the regions Krusevac and Vranje for attaining compliance with European waste management standards.

**Client** Ministry of Construction, Transport and Infrastructure of the Republic of Serbia

**Financing** Kreditanstalt für Wiederaufbau (KfW)

**Services KOCKS ENGINEERS** Preparation of waste management scenarios. Assessment of technical and financial feasibility. Priority investment plan, cost-benefit analysis.

**Extension of CAREC road corridor Dushanbe - Kurgonteppa, Tajikistan**

Four-lane extension between Dushanbe and Chashmasoron including upgrade of an intersection and connections of access roads. 33 km federal highway, 1 km connecting ramps, 1.2 km national road.

**Client** Ministry of Transport of the Republic of Tajikistan

**Financing** Asian Development Bank (ADB)

**Services KOCKS ENGINEERS** Consulting and assistance in: construction supervision, project management, environment and resettlement monitoring, road safety audit, implementation of a financial management system.



Road between Dushanbe and Chashmasoron, section at km 13



3-D visualisation of the transfer station in Malé, by Water Solutions Pvt Ltd. Maldives

**Waste management projects Maldives**

Preparation of several feasibility studies for waste disposal in the atoll. Design and tender for waste treatment plants (landfill island Tilafushi, Addu City) and waste transfer station for Malé.

**Client** Ministry of Environment and Energy

**Financing** Various (self-funding, ADB, EU, IRENA)

**Services** **KOCKS ENGINEERS** Preliminary and approval design, environmental impact assessment (carried out by project partner), preparation of tender documents for plant construction and provision of plant operating vehicles.

**Development of new residential area „Rheinquartier“ in Lahnstein**

Reconstruction of former industrial area into residential area, well-located and with total surface of 8 ha.

**Client** Rheinquartier GmbH & Co. KG

**Services** **KOCKS ENGINEERS** Feasibility study for development, transport facilities, road and drainage design. Design and coordination of underground development for media supply.



„Rheinquartier“ development area 2017



Rainwater system Chennai

**Rainwater System Chennai, India**

Internationally financed design for new rainwater drainage system for 900 ha subterritory of the sixth largest city of India, Chennai (Madras). Total length of storm water sewers 52 km, including 27 outlets into Bay of Bengal.

**Client** Greater Chennai Cooperation / KfW

**Services** **KOCKS ENGINEERS** Detailed survey, hydraulic calculations, environmental assessment, detailed design, preparation of tender documents.

**Connecting small villages of Irimeti Region to Georgia’s highway network**

Rehabilitation and extension of the Dzirula – Chumateleti Road, mostly along Dzirula River (50 km). Alternative route to highway E-60.

**Client** Road Department of the Ministry of Regional Development and Infrastructure of Georgia

**Financing** Asian Development Bank (ADB)

**Services** **KOCKS ENGINEERS** Survey, geotechnics. Detailed design including road and drainage design, four new bridges, environmental study and land acquisition plan. Tender documents.



Moliti cross-town link. Part of Dzirula – Chumateleti Road



Outdoor crane Automotive

### Reconstruction of crane system, Automotive

Reconstruction of steel construction and crane bridge for outdoor crane at the forge building of a car factory. Removal of the old crane system and construction of a new system with enhanced capacity from 5 to 10 tons. Local rehabilitation and substructure.

**Client** Automotive

**Services KOCKS ENGINEERS** Architectural design, structural design, technical facilities and equipment, site supervision and health and safety coordination.

### Drinking water supply Kurdistan, Northern Iraq

Securing drinking water supply for refugees and internally displaced people (IDP) camps as well as for receiving municipalities in Dohuk Governorate, Northern Iraq. Construction of new water intake at Mossul lake, water treatment plant (5,000 m<sup>3</sup>/d), 18 km pipelines (DN 300 to DN 1200) and water tank (12,000 m<sup>3</sup>).

**Client** Gesellschaft für Internationale Zusammenarbeit (GIZ)

**Services KOCKS ENGINEERS** Preliminary design, detailed design, tender documents, site supervision.



Water supply pipes Faida Region, Kurdistan, Northern Iraq  
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Infrastructural development at Frankfurt Airport

### Extension programme Frankfurt International Airport

**Client** Fraport AG

**Services KOCKS ENGINEERS:**

**Extension of Southern Taxiway System Lot 3** Underground cable works

**Landside Development South-East / Terminal 3**

Transport facilities design (public and service roads network), microsimulation traffic flow, design for civil engineering structures, consultancy and assistance during design variation procedures, construction phase planning and construction supervision.

### Rehabilitation of wastewater pumping stations

Rehabilitation of mechanical and electrical equipment at wastewater pumping stations.

**Client** Municipalities of Bonn, Koblenz and Montabaur

**Services KOCKS ENGINEERS** Preliminary design, draft design, detailed design, tender preparation and assistance, construction supervision.



Rehabilitation of pumping station at Buschdorfer Straße, Bonn



Rhine Bridge Duisburg-Neuenkamp

**Highway modernisation at Europe’s largest inland port in Duisburg**

Extension to eight lanes of federal highway A 40 between junctions DU-Homberg and DU-Häfen, including construction of new Rhine bridge at Duisburg-Neuenkamp.

**Owener** Federal Republic of Germany

**Client** DEGES

**Services** **KOCKS ENGINEERS** Transport facilities design, consisting of feasibility study, preliminary design, draft design and approval design. Noise study, construction logistics, site management.

Structure & bridge design by Leonhardt, Andrä & Partner.

**Transport Corridor China - Eastern Europe, Southern Kazakhstan**

Road rehabilitation and construction under Central Asian Regional Economic Cooperation (CAREC), total length 2,715 km.

**Client** Ministry of Infrastructure and Development, Kazakhstan

**Services** **KOCKS ENGINEERS** Construction supervision for road sections at Taraz (65 km) and Karnei (49 km).



Concrete road construction at Karnei



New landfill site Korca, Albania

**Waste disposal for 28 cities and municipalities in Korca Region, Albania**

Construction of new landfill site for Korca Region with capacity of approx. 725,000 tons waste (planning period till 2032). Construction of three new waste transfer stations.

**Client** Korca Regional Waste Management Company

**Financing** KfW Entwicklungsbank

**Services** **KOCKS ENGINEERS** Draft design, detailed design, tendering, site supervision, training.

**Wastewater and waste treatment for World Horticultural Exposition and neighboring settlements in Qingdao, China**

Semicentralised supply and treatment centre for evaluation, optimisation and further development of integrated infrastructure approach.

**Client** Ministry of Education and Research, Germany

**Services** **KOCKS ENGINEERS** Basic evaluation, engineering calculations, assistance to Client in: approval and detailed design, tender documents and procurement.

**Project Partner:** Technical University Darmstadt (Research and Project Management)



Supply and Treatment Centre SEMIZENTRAL, Qingdao © Cosalux and Susanne Neunast



Rhine bridge at Bendorf

### Feasibility for Rhine Bridge at Bendorf, Germany

Renovation of the river bridge and foreland bridge, including appropriate adjustment of the transport facilities in the foreland areas and the junction Bendorf-Neuwied of the state highway A48.

**Client** Landesbetrieb Mobilität Rheinland-Pfalz

**Services** KOCKS ENGINEERS Feasibility study for transport facilities

**Structural Bridge Design** Leonhardt, Andrä & Partner

### Sewer construction at Dümmerbach, Germany

Replacement of open sewers by an interception system parallel to the stream. Construction of 2,000 m of new sewers DN 600 – 2,200 by cut-and-cover method and pipe jacking. Construction of a regulating plant, a rainwater overflow structure and a discharge facility.

**Client** Lippeverband

**Services** KOCKS ENGINEERS Supervision of civil engineering structures (HOAI Phases 8 & 9), site supervision, site management and project support.



Sewer construction at Dümmerbach, Datteln



Construction of formwork and reinforcement for the media compartments

### Construction of new metal refining plant, Germany

Construction of a new steel hall (L / W / H = approx. 300 / 35 / 30 m) with crane operation (6 cranes, up to 35 tons) for tinplate furnishing in packaging industry, including several connection structures. Construction of media compartments and transformer house.

**Client** thyssenkrupp Rasselstein GmbH

**Services** KOCKS ENGINEERS Structural design, BIM oriented 3-D design.

### Municipal sewage treatment enhancement for the city of Nanning, Southern China

Extension and rehabilitation of municipal wastewater treatment plant (PE 820,000) through construction of new additional sewage treatment plant (50,000 m<sup>3</sup>/d). Renovation of machinery of the three existing sewage treatment plants (each 100,000 m<sup>3</sup>/d).

**Client** Guangxi Nanning Water Co., Ltd.

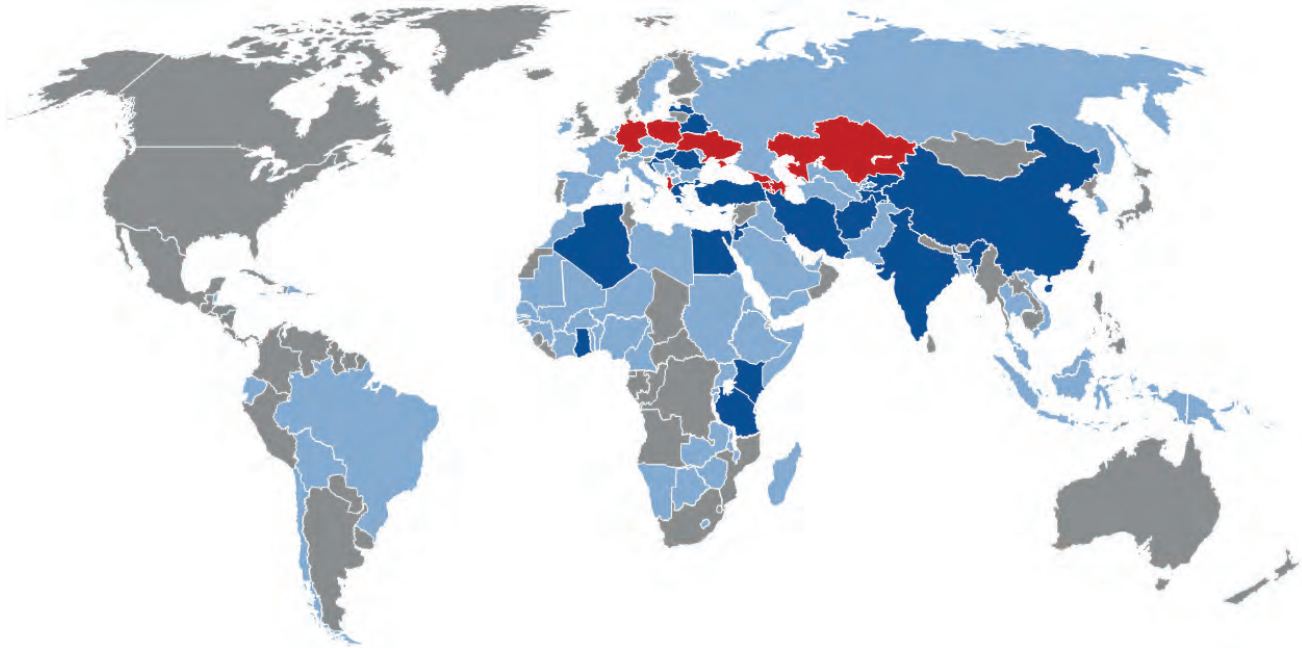
**Financing** KfW Entwicklungsbank

**Services** KOCKS ENGINEERS Consulting and assistance during: tender, procurement, construction supervision and acceptance, defects notification period.



Wastewater treatment plant Langdong in Nanning

# Comprehensive Engineering Solutions worldwide since 1946



**Registered KOCKS Branches:** Albania, Armenia, Azerbaijan, Germany, Georgia, Kazakhstan, Malta, Poland, Ukraine

**Projects 2018 in:** Afghanistan, Albania, Algeria, Armenia, Azerbaijan, Belarus, China, Croatia, Cyprus, Egypt, Georgia, Ghana, Greece, Hungary, India, Iraq, Iran, Jordan, Kazakhstan, Kenya, Kyrgyzstan, Kuwait, Latvia, Luxembourg, Maldives, Malta, Montenegro, Poland, Romania, Russia, Tajikistan, Tanzania, Turkey, Ukraine, Uzbekistan

**Project countries since 1946** (historical overview)

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