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The group of experts

for complex engineering
projects and
interdisciplinary & technical
complete solutions

www.ic-group.org



**a solidarity-minded
company,**

Our generation model
opens the way for
employees to become
partners over the years.

The background of the entire image is a close-up, black and white photograph of several interlocking metal gears. The gears are of various sizes and are in sharp focus, with some showing signs of wear and a metallic sheen. The lighting creates strong highlights and deep shadows, emphasizing the mechanical nature of the scene.

ic is

integrative
innovative
international



An integrative approach is the core of successful engineering.

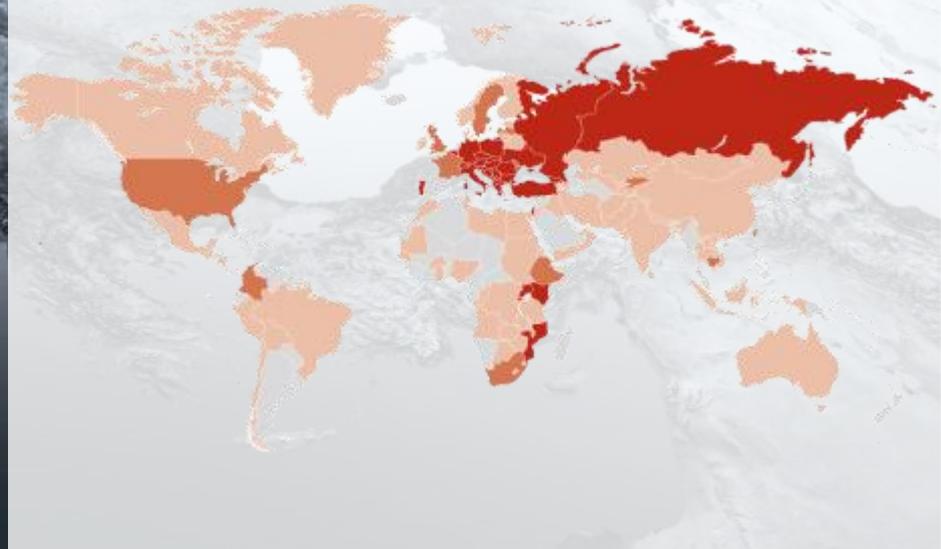
Consideration of all parties involved, all relevant conditions and alternatives – in all projects – on the national and international level, in our cooperation, organisation and communication. In the field of tension between engineering, economy and law.



Based on our network of expertise including a wide range of disciplines and research institutes we keep our finger on the pulse of development. Thus we meet the challenges both of new technologies and of the future.

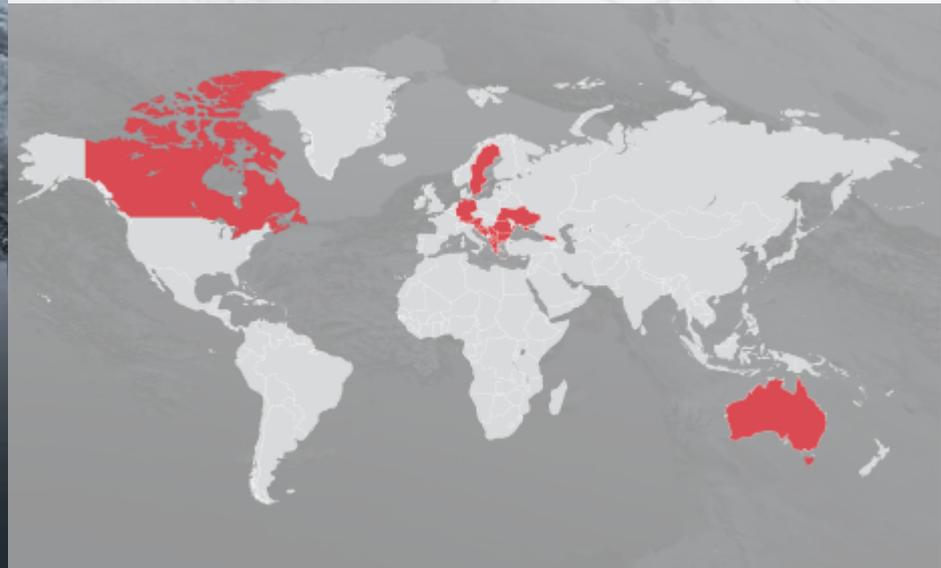


With our global know-how and competencies on site as well as **more than 500 colleagues** and our experience **in 100 countries** we provide solutions for projects worldwide.



Offices in

Vienna · Salzburg · Villach · Ybbs ·
Innsbruck · Athens · Belgrade · Bucharest ·
Brisbane · Freilassing · Kiev · Ljubljana ·
Lund · Priština · Sarajevo · Skopje · Sofia ·
Tbilisi · Tirana · Toronto · Varaždin · Zagreb





iC Principles

iC has a certified **ISO 9001-2015** and **ISO 14001-2015** quality assurance program in place.

It is the policy of the iC to conduct its business activities strictly in accordance with all applicable laws, rules and regulations. The policy is based on the **Compliance Management System**.



iC Chartered engineers

iC is a chartered engineering company authorised to provide services in:

- Civil engineering
- Mechanical engineering
- Forestry & wood management
- Earth sciences
- Electrical engineering
- Environmental engineering & water management



ic offers

- Project planning and computation
- Tendering and award of contract
- Project management
- Control and monitoring
- Surveys and consultancy
- Due Diligence



Technical fields

Buildings & structures

Transport & mobility

Environment

Technical building equipment

Construction & project management

Water

Geology & geotechnical engineering

Tunnelling

Energy





Buildings & structures

We provide all services in the field of building construction on the national and international level. Planning, site supervision, structural design, building physics and project monitoring.

Services

- Project monitoring
- Site supervision
- Structural design
- Building physics
- Planning
- Expert opinions and consulting services
- Project management



Buildings & structures

Vienna University of Technology – Site Supervision



Services: Coordination of construction works, site supervision (building construction, technical building equipment, lab)

Rudolfstiftung Hospital – South Annexe



Services: Site supervision (construction works, building services, electrical engineering) and construction site coordination

School Centre Krems – Site Supervision



Services: Site supervision (construction & civil engineering works, technical building equipment), construction site coordination

IST Flexible Purpose Lab



Services: Site supervision (construction works, technical building equipment, lab technology) and construction site coordination according to the Austrian BauKG Act, Building Physics

Erste Campus – Site Supervision



Services: Site supervision (construction works and technical building equipment)

Forum Schönbrunn: Part II



Services: Construction site coordination, structural engineering





Rudolfstiftung Hospital – South Annexe

Client:

KAV - Wiener Krankenanstaltenverbund
(Association of Viennese Hospitals)

Duration: 2009 - 2013

Services: Site supervision (structural and civil engineering, mechanical and electrical engineering), construction site coordination

Site supervision for the construction of the annexe to the existing main building including two basement and 18 floors above ground as well as a helicopter on the last floor pad will be installed with direct access to lift H4. The annexe will house offices, meeting and duty rooms and services floors. Vertical accessibility is provided by an escape staircase and two passenger lifts.

The existing building will be extended towards the south by an administrative building with 18 storeys. On the flat roof of the building there will be a helicopter landing pad – a light steel construction with an aluminium deck. The existing lift shaft H4 needs to be increased in height in order to provide access to the helicopter pad, it will also be a steel construction.



We guarantee profound engineering competence, new technologies and a clear understanding of mobility requirements for an efficient transport infrastructure and reliable services.

Services

- Project evaluation
- Research and development on mobility
- Studies on feasibility, economic efficiency and environmental compatibility
- Planning and cost estimates
- Applications for project financing
- Technical planning – concepts and details
- Tendering according to national and international guidelines
- Tender review and support during award of contract
- Contract management
- Site supervision according to national and international guidelines (FIDIC, EU PRAG etc.)
- Supervision of IT system integration into transport infrastructure (ITS)
- Consulting and training on transport system operation

**A 23 Vienna City Motorway –
Pumpwerkbrücke Bridge**



Services: Tender review, site supervision

**Motorway E 70/75 and
By-pass R 251 in Belgrade**



Services: Supervision of all works under FIDIC Red Book; assistance to Serbian roads administration regarding work contracts; review of design

**Skopje Urban Transport Project
(Macedonia)**



Tender documents, procurement, site supervision in cooperation with Actes, Vienna

**River Information
Services –RIS, Serbia**



Services: Provision of supervisory services to Plovput and EU Delegation on the installation and pilot operation of Telematics system for RIS on the rivers Danube and Sava

Railway Line Sirt – Benghazi



Service: Design management, construction site consultancy, quality assurance and contract management for the turn key contractor

Lviv Road Project



Services: Project management, preparing the contract documents & tender dossier, ACTES for design & technical specifications a, providing technical support



eMORAIL – Integrated eMobility Service for Public Transport

Client:

Klima- und Energiefonds (funding institution), ÖBB-Holding AG (project management), assignment: Quintessenz Organisationsberatung GmbH, create-mediadesign GmbH

Duration: 2010 - 2013

Services: Project development, project management, project documentation, project coordination

The aim of the research project is to develop an innovative, cost effective and environmentally friendly solution to increase the mobility of commuters and the awareness for electric vehicles to be used in combination with public transport as an alternative to using the own private car. A pilot project of this service offer is implemented and tested in two cities and two rural regions. The technological preconditions for an Austria-wide application are currently being prepared.



We protect against immissions of all kinds, create sustainable buildings with optimised building physics to live and work in a clean up where asbestos is causing problems.

Services

- Studies on noise, vibrations, air hygiene, climate, electromagnetic fields or light and shading during EIA procedures and other statutory procedures
- Calculations/prognoses and definition of measures
- Public relations and representation with public authorities
- Permissions under trade law for businesses and plants
- Additional measurements, „Structural Health Monitoring“
- Planning and dimensioning of elastic supports for buildings, static and structural design of anti-vibration measures in railway superstructures and substructures
- Planning and supervision of building physics
- Planning, tendering and supervision of the disposal of pollutants
- Expert opinions for public authorities





Due Diligence for an Office Location in Bratislava



Services: Risk assessment, environmental expert opinion, remediation concept, environmental due diligence

Brenner Base Tunnel



Services: Vibration monitoring, reporting, consulting of the client regarding vibrations, public information

Environmental Examination of Industrial Sites in Albania



Services: Contaminant examination, documentation, risk assessment, environmental expert opinion, remediation plan

Koralm Railway Graz – Klagenfurt



Services: Expert support in the fields of vibrations, noise, air quality

Vienna Central Station



Services: Noise, vibrations, air quality

Expert Services for Asbestos Abatement - Rudolfstiftung Hospital



Services: Examination of building pollutants, environmental expert opinion, monitoring and documentation of remediation measures





Brenner Base Tunnel – Vibrations

Client:

Galleria die Base del Brennero

Duration: 2014 - 2024

Services: Vibration measurements during construction, preparation of reports, consulting to the client in vibration-related issues, PR

With a length of some 55 km the Brenner base tunnel is the core of the railway corridor Munich – Verona. The services are rendered for the Austrian project area ranging from the Tulfes tunnel portal to the southern edge of construction lot Wolf II. iC's task is to measure vibration and ground-borne noise immissions over the entire construction phase.

The contract covers the construction lots Tulfes–Pfons (escape galleries, connecting tunnels), Wolf access tunnel (4.1 km), Pfons–Brenner (main tubes from km 16 to the state border). Ahrental (main tubes from Sillschlucht to km 16) and Sillschlucht (portals and entrance to Innsbruck main station).

For this project a fully automated, tele-monitoring system is developed and shall be operated over a period of ten years. A major challenge are blast vibration measurements in the Innsbruck railway bypass tunnel while escape galleries are being constructed at a distance of 30 m.





Technical building equipment

We devise intelligent building management systems to ensure the sustainable and energy-efficient operation of buildings and infrastructure.

Services

- Planning and site supervision
- Project monitoring (deadlines, costs, quality)
- Technical reports and consulting services
- Electromagnetic fields (EMF) in power engineering
- Technical due diligence and project audits
- Specialisations in Hospitals, educational institutions, tunnel projects and district heating



ic Technical building equipment

BahnhofCity Wien West



Services: Specialist site supervision for electrical engineering

Archdiocese of Vienna – Remodelling of the Archbishop's Palace



Services: Planning, tendering and site supervision in the fields of structural engineering, building physics, electrical engineering, HVAC, MCT, safety, noise and vibration

Laaerberg Retirement Home



Services: Building services design, electrical engineering, structural engineering

Construction of Campus WU



Services: Site supervision incl. Specialist site supervision for electrical engineering, construction site coordination

Power Grid Control



Services: Technical building services design, structural engineering, site supervision of energy technology, site supervision of building services, infrastructure planning

Sozialmedizinisches Zentrum Favoriten – Nursing School



Services: Construction work coordination, site supervision of building services, site supervision of structural & civil engineering



Technical building equipment



Laaerberg retirement Home

Client:
Kuratorium Wiener Pensionisten-
Wohnhäuser

Duration: 2011 - 2014
Services: Building services design,
electrical engineering, structural
engineering , Building Physics

The building consists of 220 residential units, of which 40 are designed for the provision of care. The general refurbishment of the Laaerberg retirement home includes the thermal refurbishment of the building envelope, the creation of barrierfree bathroom/WC groups, the renovation of the technical building equipment and the installation of an additional lift. The building is being turned into a state-of-the-art retirement home.





Construction & project management

We aim at achieving the lasting success of projects based on our expertise in construction economics and networking with all departments of iC.

Services

- Project management and owner's representative services
- Project control
- Site supervision
- Project monitoring, construction monitoring and bank monitoring
- Master planning
- Cost planning and control
- Scheduling and progress control
- Technical due diligence and project audits
- FIDIC engineer
- Health and safety planning according to the Austrian Construction Work Coordination Act (BauKG)
- Inspection engineer
- Expert opinions and consulting in the field of construction economics
- Development of organisational structures and processes for construction projects





Construction & project management

Shopping Centre Zagreb West Gate



Services: Project control, coordination of construction works, optimising planning process

Campus WU



Services: Site supervision including supervision of mechanical and electrical engineering; construction site coordination according to the Austrian BauKG Act

General Refurbishment of the Parliament Building



Services: Project monitoring, consulting to the client

Wien Nord Hospital



Services: Site supervision (construction, HVAC, electrical engineering, medical technology), construction site coordination according to the Austrian BauKG Act

Uniqa Tower Odessa



Services: Project management and site supervision

Danube Bridge and Tunnel Novi Sad



Services: Project management, tendering (FIDIC Yellow Book), award of contract, site supervision – in cooperation with Mostprojekt





Construction & project management



Danube Bridge and Tunnel Novi Sad

Client:

ZIG – Public Enterprise for City Construction and Development

Duration: 2010 - 2013

Services: Project management, tendering (FIDIC Yellow Book), award of contract, site supervision – in cooperation with Mostprojekt

Along the route of the Franz Joseph Bahn railway, a four-lane city motorway is to be constructed over the Danube River. For this purpose a 420 m long steel/reinforced concrete bridge shall be erected on the pillars of the old bridge. On the right bank the bridge merges into an old railway tunnel underneath the Petrovaradin fortress. For the new city motorway the existing tunnel will be divided longitudinally by a pillared gallery and expanded to two double-lane tubes. On both sides of the Danube the road will be connected to the city's main transport axes.



Based on expertise and enthusiasm we develop innovative solutions for individual projects and contribute to the latest national and international developments in the water sector.

Services

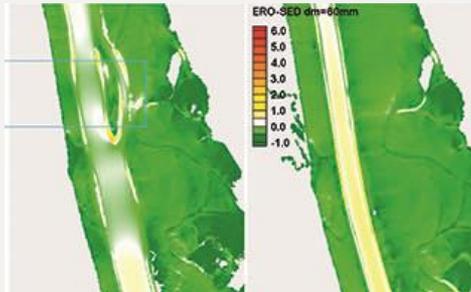
- Engineering and consultancy services
- Infrastructure design, monitoring, backstopping and supervision of implementation
- Socio-economic and financial analysis of infrastructure investment and operation
- Advisory services for institutional and legal reform
- Capacity development and training
- Applied research and thematic studies
- Policy and strategy development
- Programme and project identification and preparation
- Project implementation, supervision and monitoring
- Review and evaluation of projects, programmes and policies

Water Supply and Sewerage Master Plan for Albania



Services: Demographic data, future water demand and sewage, water balance, multi-criteria priority matrices

Watercourse-typical Renaturation of Erosive Rivers



Services: Technical solution & develop an integrated approach

Rehabilitation of Urban Water Supplies and Sanitation II



Services: Detailed design, tendering and procurement support, construction supervision

Fritzbach Power Plant



Services: Hydraulic analyses and development of measures

Study on the Optimisation of Flood Retention at Tielbel-Teuchenbach



Services: Surveying, run-off modelling, variant study, feasibility analysis, coordination meetings with land owners and authorities

Development of Water Services in Rezekne City



Services: Tendering, application of FIDIC conditions of contract and ISPA guidelines, conceptual design, contractual consulting



An aerial photograph of a city, likely Tirana, Albania, showing a dense urban area with various buildings and a large mountain range in the background under a clear blue sky.

Water Supply and Sewerage Master Plan for Albania

Client:

Albanian Ministry for Public Works and Transport

Duration: 2011 - 2012

Services: Demographic data, future water demand and sewage, water balance, multi-criteria priority matrices

The scope for investments in water supply and waste water infrastructure was assessed in detail for the entire country, taking into account existing centralized infrastructure. Future water demand and sewage generation potentials were computed using demographic data and changes in demand behaviours. A water balance was developed including climate change estimations. The master plan considers the rehabilitation and extension of current infrastructure as well as new systems. Investments were ranked by application of multi-criteria priority matrices. In total, more than 1,400 measures were identified summing up to approx. 6 billion EUR of total investments in the coming 28 years.



Geology & geotechnical engineering

We offer geological, geotechnical and hydrogeological planning, consulting and site supervision for infrastructure, geothermal energy, wind power, hydropower and mining projects.

Services

- Development of geological, geotechnical and hydrogeological investigation programmes
- Design, assessment and site supervision of geothermal energy projects
- Geological, structural geological and hydrogeological modelling
- Interpretation of geological, geotechnical, geophysical and hydrogeological data
- Geotechnical design of ground and rock slopes and foundations of all kinds
- Geotechnical expert opinions with a focus on rock mechanics and verification of stability for mining operations
- Geological and geotechnical risk assessment and management
- Consulting services and expert opinions covering all aspects of geology, geotechnical engineering, tunnelling, construction operation and construction contracts
- Geotechnical monitoring, especially of tunnelling sites, design and interpretation of geotechnical measurements





Geology & geotechnical engineering

Pumped Storage Plant Kaunertal



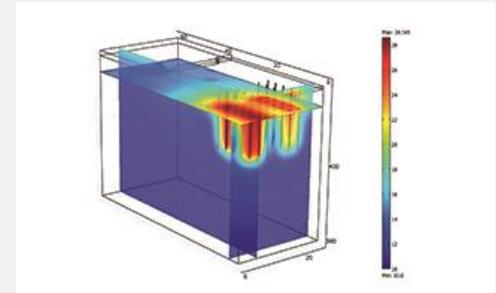
Services: Geological survey (aerial photograph interpretation, mapping, drill stem test, analysis of laboratory and geophysical tests), environmental impact study, concept planning

Rockslide Dürnstein - Remedial Measures



Services: Rock mechanical stability analysis, design of remedial measures, site supervision

Salzburg Main Station



Services: Feasibility study, submission to the authorities, tendering and execution design for the photovoltaic plant

Shopping Centre Ried



Services: Geological/geotechnical investigation, planning of the support of the open cut, consulting to the client, hydrogeological measures

Geological Engineering for a Feasibility Study, Angostura



Services: Geological-geotechnical investigations, geotechnical design

Rock Fall Expertise Old Winzendorf Quarry



Services: Geological field mapping, rock mechanical analysis, expertise, compilation of a protection concept





Geology & geotechnical engineering



Rockslide Dürnstein - Remedial Measures

Client:
ÖBB-Infrastruktur AG

Duration: 2009 - 2013

Services: Rock mechanical stability analysis, design of remedial measures, site supervision

The remedial concept was subdivided into three stages: After cleaning the rockface by small blasts, a geotechnical monitoring system was installed in a first phase. In the second phase, a rockfall protection bank was erected on the foot of the rock face, which allowed to reopen the railway line. Between 2011 and 2013, a long term remedial cut was designed and implemented.

The more than 100 metres high rock cliff, which was part of an old quarry, is heavily fractured and loosened. The railway line and the B3 federal road are running below within spitting distance. Works in these extraordinary surroundings posed the main challenge for all parties involved.



We ensure planning, consulting, site supervision and project management in the fields of geotechnical engineering, underground engineering and mining.

Services

- Design of tunnels, shafts, caverns and provision of underground engineering services for road, railway, metro, hydropower and mining projects
- Geotechnical and structural tunnel design for NATM and TBM tunnelling in soft ground and rock
- Geotechnical design of soil and rock slopes
- Geotechnical expert opinion with a focus on rock mechanics and stability analyses in mines and quarries
- Consulting services covering all aspects of geotechnical engineering, tunnelling, construction operation and construction contracts
- Project management controlling of tunnelling and underground engineering projects
- Geotechnical supervision of tunnelling sites, design and interpretation of geotechnical monitoring and geotechnical risk management

Bärenwerk HEP Upgrading, Site Supervision



Services: Consultancy of tender documents, site supervision

Metro Budapest Line 4



Services: Execution design, risk analysis, geotechnical interpretation and structural engineering

Deschlberg Tunnel



Services: Execution design

Tunnel Eierberge, New Railway Line Ebensfeld-Erfurt



Services: Final design and geotechnical supervision

Lainzer Tunnel



Services: Permit design, tender design, execution design, geotechnical risk management

Wienerwald Tunnel



Services: Tender documents, final design and geotechnical risk management, vibration measurements





Metro Budapest Line 4

Client:
Uvaterv Zrt. | Specialterv Zrt.

Duration: 2007 - 2009

Services: Execution design, risk analysis, geotechnical interpretation and structural engineering

Metro line 4 comprises several stations with mined tunnel sections, designed and constructed by means of NATM. We were in charge of designing single and double track tunnels, station tunnels, ventilation tunnels and cross-passages for four stations. Our Vienna office was responsible for execution design of the tunnel's outer shell, for risk analysis, geotechnical interpretation and structural engineering of the lining in two stations.



We develop and implement sustainable solutions in the fields of energy and building.

Services

Project development

- Site analysis
- Market potential analyses
- Due diligences
- Feasibility studies
- Integrative energy concepts
- CO²-certification processes
- Cost / benefit / life cycle analyses
- Profitability analyses
- Conceptual design
- Energy efficiency audits
- Building certificates

Implementation

- Detailed design
- Tendering
- Project management
- Execution design
- Site supervision
- Commissioning
- Training
- Support in operational management

**Windpark Dürnkrot / Windkraft
Simonsfeld AG**



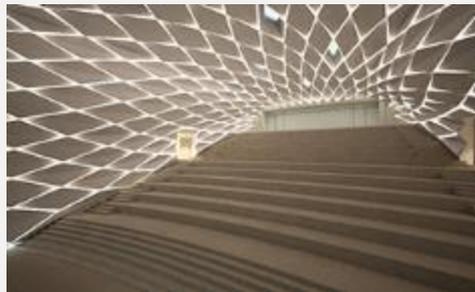
Services: Site supervision and monitoring of the foundation works and piling works

**BIO-Diesel Kreams - Modification
of the Biodiesel plant**



Services: Tendering procedure, project management, detailed design, site supervision energy technology, project monitoring, design review, procurement support

**Sheikh Zayed Desert Learning
Center – Al Ain**



Services: Assessment of energy efficiency, building physics, conceptual design, design of electrical facilities, design for statutory procedures, environmental consulting, plant design, tendering , Building Physics

**Windpark Hochpürschting /
Stanglalm**



Services: Site supervision and monitoring of the foundation works

**Approval Planning for Benca-
Tepelena Hydropower Scheme**



Services: Site visit, geology research site inspection, technical consultancy, financial consultancy, preliminary planning and layout engineering, approval planning

**TIGAS - District Heating Plant at
Innsbruck**



Services: Technical consulting, numeric simulation, basic and detailed design, tendering procedure, permission procedure, site supervision and works coordination



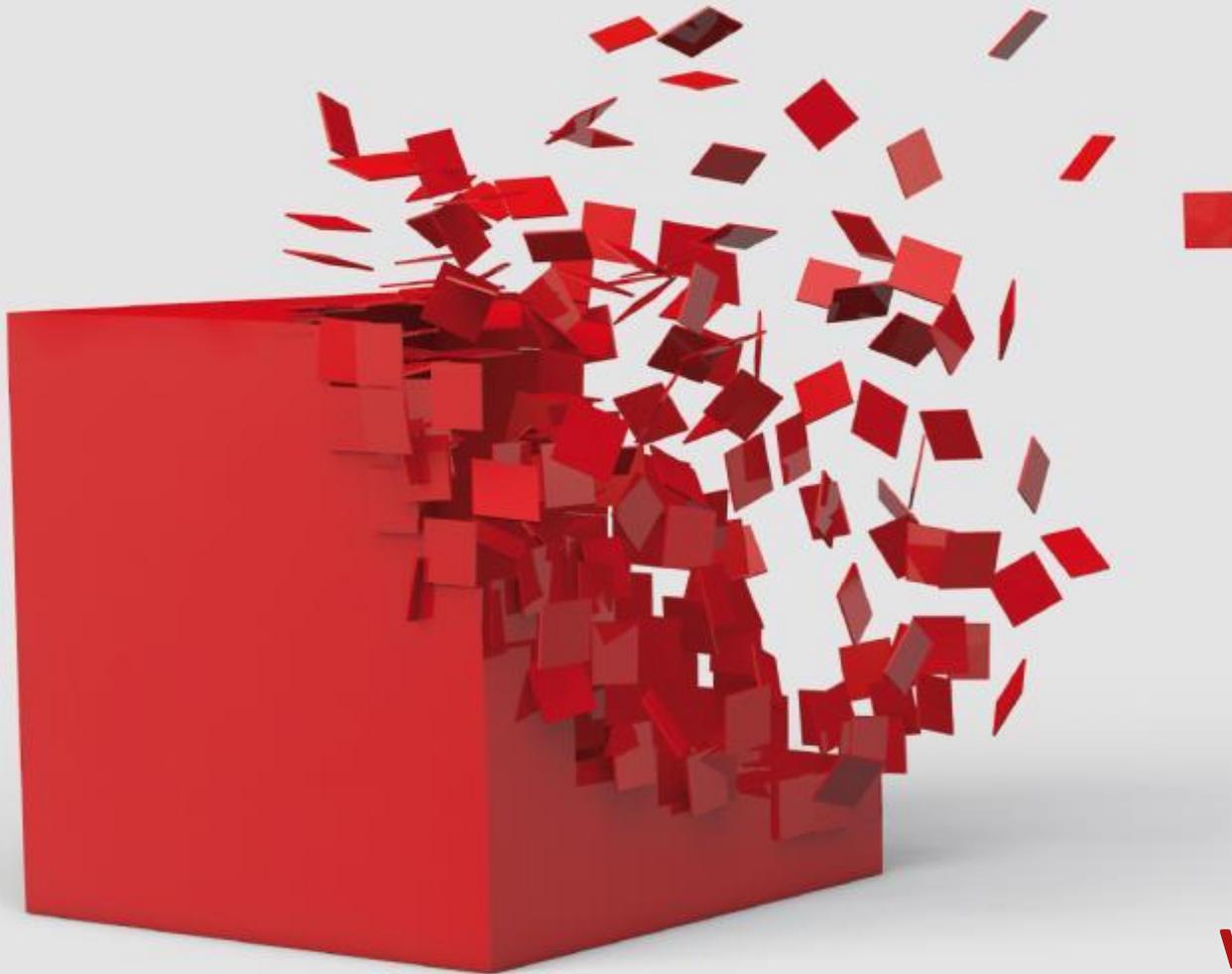
Feasibility Study: 126 MW Hydropower Plant Kairakkum (Tajikistan)

Client:
Open Stock Holding Power Company
Barki Tojik

Duration: 2012 - 2013
Services: Feasibility Study

iC was preparing a feasibility study on the rehabilitation and adaption to state-of-the art technology of the 126 MW hydropower plant Kairakkum. The project is being financed by EBRD together with EIB. The study on the rehabilitation of the power plant is to include the results of the 'Pilot Programme for Climate Resilience' started by the Climate Investment Fund in 2010 and administered by EBRD, which examines the effects of climate change on hydropower.

**We are looking forward to the future.
Wherever!
Whenever!
Together with you.**



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