





#### WATER & ENVIRONMENT







OIL, GAS & INDUSTRIAL





# ILF AT A Glance

ILF is a leading international engineering and consulting group that supports its clients to successfully identify, prepare and execute challenging energy, industrial and infrastructure projects.

50+ years of experience

6,000+ projects successfully executed

2,400+ employees worldwide

150+ countries in which ILF has been successful

**40+** office locations across five continents

**4** main business areas

With over 2,400 highly qualified employees in more than 40 offices across five continents, the companies of the ILF Group have a strong regional presence. This enables ILF to interact with clients and project parties wherever required.

At the same time, close cooperation within the network enables ILF to draw on a number of international experts and utilize their special experience, processes, and tools.

This combination of local presence and international expertise ensures that clients needs are best met.

ILF is privately owned by two founding families and is therefore fully independent. It has no affiliation with manufacturers, suppliers, or financial institutions.

ILF s working principles are:

- analyzing clients needs and providing the relevant consulting services to clients
- developing and optimizing sustainable project solutions based on a holistic approach
- working diligently to deliver reliable and creative, high-quality solutions
- interacting closely with clients and project parties on site
- integrating all stakeholders, applying ILF's vast international experience, outstanding competence and extensive local knowledge
- remaining a completely independent and privately owned company

ILF is committed to achieving the highest level of client satisfaction and to maintaining long-term business relations with its clients.



*"ILF combines local presence and international expertise to best serve clients' needs."* 

## FOR A BETTER QUALITY OF LIFE

The vision that drives us, and the reason we believe in the work we do.

#### VISION

ILF is passionate about contributing to a better quality of life around the globe.

#### VALUES

The following company values form the basis for all interactions at ILF:

#### Respect

Everyone is treated with respect and dignity, regardless of their position, ethnicity, religion, or gender. This is true for both ILF staff and third parties.

#### Honesty

Honesty is considered crucial for professional relationships. This is why "walking the talk" is important to ILF.

#### Reliability

Employees take responsibility for their assignments and their actions. High importance is given to meeting project requirements and deadlines, whilst ensuring the best quality.

#### Fairness

Everyone is treated fairly, and fairness is also a guiding principle in decision making at ILF.



#### **ENGINEERING EXCELLENCE**

Instead of focusing solely on growth, ILF aims at market leadership through quality and continuously strives for engineering excellence.

This is achieved through:

- a holistic approach to problem solving
- a high level of ingenuity and creativity
- a constant desire for improvement
- strong motivation and dedication
- great diligence and persistence
- ongoing staff development programs
- efficient knowledge management and competence development

#### **EFFECTIVE COOPERATION**

In order to best serve clients' needs, ILF employees around the world make a concerted effort in their work. United as a team, they successfully bridge distance, time zones and a variety of cultures.

#### **GREAT PEOPLE**

The people at ILF make a great difference. Highly motivated employees are keen to excel and contribute to the overall success of the company. Problems are seen as challenges, and finding the best solution is the goal. ILF strives for long-term working relationships and encourages its employees to see themselves as ILF ambassadors.

#### **COMPLETE INDEPENDENCE**

ILF is privately owned with no affiliation to banks, suppliers, or any other third parties. Actions are always based on objective considerations and are in the best interest of the client.

#### **SUSTAINABLE CONDUCT**

ILF is committed to sustainability. This commitment is fulfilled in ILF's day-to-day business activities as well as in ILF's continued effort to reduce carbon and waste footprints.



# SERVICE PORTFOLIO

Following a one-stop approach, ILF offers its clients a comprehensive range of consulting, engineering and project management services, along with a variety of additional services.

#### CONSULTING

- Market Studies
- Master Plans
- Transaction Advisory Services, Due Diligence Analyses
- Pre-Feasibility Studies
- Bankable Feasibility Studies
- Lender's Engineering
- Dispute Resolution
- PPP Advisory Services
- Project Screening
- Financial Advisory Services
- Institutional Analysis and Strengthening
- Operation and Maintenance Consultancy

#### **PROJECT MANAGEMENT**

- Project Organization
- Project Management Consultancy
- Risk Management
- Stakeholder Management
- Project Execution Planning
- Procurement Services
- Supply Chain Management
- Construction Supervision
- Commissioning Supervision
- Operation Supervision

#### ENGINEERING

- Pre-Concept
- Conceptual Design
- Basic Design
- FEED, Tender Design
- Permit Application Design
- Guide Design
- Detailed Design
- Construction Design
- Design Review
- As-Built Documentation
- Integrity Assessment
- Rehabilitation Design
- Modification Design
- Decommissioning Planning

#### **ADDITIONAL SERVICES**

- Geology and Hydrogeology
- Geotechnical Engineering and Soil Mechanics
- Urban and Environmental Planning
- Environmental and Social Impact Assessments
- Information Management GIS and BIM
- Risk and Safety Management
- Protection of Critical Infrastructure
- Rehabilitation of Aging Infrastructure
- Energy Concepts
- Climate Change Management
- Disaster Risk Management
- Sustainability Advisory Services



### ENERGY & CLIMATE PROTECTION

The use of renewable energy sources, along with the conversion of fossil fuels, industrial residues and municipal waste into electricity and heat, are key to improving the quality of life today and for future generations.



#### **SOLAR POWER**

- Sheikh Mohammed Bin Rashid Solar Park, 1,000 MW, UAE
- Bahawalpur Photovoltaic Power Plant, 100 MW, Pakistan
- El Borma Solar Power Plant, 40 MW, Tunisia

#### WIND POWER

- Dhofar Wind Power Plant, 50 MW, Oman
- Großinzersdorf Wind Park, 9.9 MW, Austria
- Offshore Wind Farms, in total approx.
  2,500 MW, Baltic Sea

#### **HYDROPOWER**

- Atdorf Pumped Storage Plant, 1,400 MW, Germany
- Limmern Pumped Storage Plant, 1,000 MW, Switzerland
- Qairokkum Hydropower Rehabilitation Project, 174 MW, Tajikistan
- Muzizi Hydropower Plant, 48 MW, Uganda

#### **BIOENERGY**

- Zabrze Combined Heat and Power Plant, 139 MW<sub>th</sub> and 75 MW<sub>el</sub>, Poland
- Czestochowa Combined Heat and Power Plant, 120 MW<sub>th</sub> and 65 MW<sub>el</sub>, Poland
- Hall Biomass-Fired Cogeneration Plant, 27 MW<sub>th</sub> and 1.1 MW<sub>el</sub> and, Austria

#### **THERMAL POWER**

- Kozienice Power Plant, 1,075 MW<sub>el</sub>, Poland
- Shuqaiq II Independent Water and Power Project (IWPP), 850 MW<sub>el</sub>, Saudi Arabia
- Ostroleka Power Plant, 1,000 MW<sub>el</sub>, Poland

#### WASTE-TO-ENERGY

- DBO Waste-to-Energy Plant in Dubai, 171 MW<sub>el</sub>, UAE
- Waste-to-Energy Plant in Sharjah, 25 MW<sub>el</sub>, UAE
- PPP Solid Waste Incineration Plant in Poznań, 210,000 Mg/a, Poland

#### **POWER TRANSMISSION & DISTRIBUTION**

- SuedLink 2.0, High-Voltage Direct Current Transmission Line, Germany
- 2,800 MW Combined Cycle Power Plant and 330 kV Transmission Line, Nigeria
- Offshore Pipe Laying for Gas-Insulated High-Voltage Power Transmission Lines in the North Sea, 245–550 kV, Germany

#### **ENERGY STORAGE**

- Limberg II Pumped Storage Plant, 480 MW, Austria
- Gravity Storage (piston: depth 28 m, diameter 20 m), Saudi Arabia
- Demo4Grid 4 MW Pressurized Alkaline Electrolyzer for Grid Balancing Services, Austria

#### **HYBRID POWER PLANTS**

- Solar for Schools Initiative, 100–200 kW, Kazakhstan
- POISED Preparing Outer Islands for Sustainable Energy Development, Maldives
- 8 Photovoltaic & Hybrid Power Plants, 34 MW, Senegal



*"ILF is committed to combining energy sources in a way which optimizes power supply while minimizing environmental impact."* 

Andrzej Dercz, Group Director Energy & Climate Protection



Limmern Pumped Storage Plant, Switzerland



Hall Biomass-Fired Cogeneration Plant, Austria



Kozienice Power Plant, Poland

### WATER & ENVIRONMENT

The provision of professional consulting, engineering and design services in the field of water and environment has been a trademark of ILF Consulting Engineers for more than three decades. Clients all over the world are satisfied with ILF's innovative and reliable approach, which has been demonstrated in a number of major international projects.



#### DESALINATION

- Shuqaiq II Independent Water and Power Project (IWPP), 212,000 m<sup>3</sup>/day, Saudi Arabia
- Fujairah F1 Expansion Independent Water Project (IWP), 136,000 m<sup>3</sup>/day, UAE
- Sadara Independent Water Project (IWP), 178,500 m<sup>3</sup>/day, Saudi Arabia
- Shuqaiq III Independent Water Project (IWP), 450,000 m<sup>3</sup>/day, Saudi Arabia
- Taweelah Independent Water Project (IWP), 909,000 m<sup>3</sup>/day, UAE

#### WATER TREATMENT

- Dhahran Water and Wastewater Facilities, 100,000 m<sup>3</sup>/d, Saudi Arabia
- Korça Water Supply and Sanitation System, 400 l/s, Albania
- Water Projects in Prahova, Bacau, Neamţ, lasi, Buzau, 31 water treatment plants, Romania

#### **WASTEWATER TREATMENT**

- Vienna Wastewater Treatment Plant, 670,000 m<sup>3</sup>/d, Austria
- Czajka Wastewater Treatment Plant, 435,000 m<sup>3</sup>/d, Poland
- Sulaibiya Wastewater Treatment and Reclamation Plant, 600,000 m<sup>3</sup>/d, Kuwait
- Jeddah Airport 2 Independent Sewage Treatment Plant, 300,000 m<sup>3</sup>/d, Saudi Arabia

#### **INDUSTRIAL WATER**

- IWWTP Jeddah Industrial City 1, Rehabilitation, 25,000 m<sup>3</sup>/d, Saudi Arabia
- Al Mu'ajjiz Terminal, Water Treatment and Rehabilitation, 1,600 m<sup>3</sup>/d, Saudi Arabia
- Water Treatment for Polymer Flooding Facility near Gänserndorf, 1,200 m<sup>3</sup>/h, Austria
- Sandoz GmbH WWTP, 10,000 m<sup>3</sup>/d incl.
  1,600 m<sup>3</sup>/d highly polluted wastewater, Austria

#### WATER TRANSMISSION

- Ras Al Khair–Riyadh Water Transmission System, 920 km, 947,000 m<sup>3</sup>/d, Saudi Arabia
- Yanbu–Medina Water Transmission System, Phase 3, 605 km, 710,000 m<sup>3</sup>/d, Saudi Arabia
- Ghadames–Zawarah–Az Zawiya Water Transmission System, 600 km, 250,000 m<sup>3</sup>/d, Libya
- Common Seawater Supply Project (CSSP), 436 km, Iraq
- Esperanza Seawater Supply System, 144 km, Chile

#### **URBAN WATER**

- Korça Water Supply and Sanitation System, 85,000 PE, Albania
- Smolyan Integrated Water Project, 55,000 PE, 10,000 m<sup>3</sup>/d, Bulgaria
- Irbid and Beit Ras Wastewater Networks, 500,000 PE, Jordan
- Water Supply Systems in 28 towns, approx. 266,000 inhabitants, Georgia
- Water Loss Reduction in Zarqa, 10,000–15,000 inhabitants, Jordan



Marafiq Jubail IWPP, Saudi Arabia



Czajka Wastewater Treatment Plant, Poland



Ras Al Khair–Riyadh WTS, Saudi Arabia



*"Water is essential for life – ILF is dedicated to improving access to water and ensuring its sustainable use."* 

Bernhard Lässer, Group Director Water & Environment

# TRANSPORTATION & STRUCTURES

For more than five decades, ILF has managed, provided consultation for and been engaged in the engineering of many infrastructure projects. Over the course of those years, ILF has successfully implemented a great number of unique and challenging projects, which have earned ILF a reputation of engineering excellence.

PARTIE RALL AND DE CONTRACTOR DE



#### **MULTIMODAL TRANSPORTATION**

- Dostyk Trans Terminal, Kazakhstan
- Wolkenstein Traffic and Mobility Concept, Italy
- Wels Local Traffic Concept, Austria

#### RAILWAYS

- Scandinavian-Mediterranean Corridor TEN-T 5, 700 km, Germany, Austria, Italy
- Brenner Base Tunnel, Feeder Line North, Rosenheim–Radfeld, 60 km, Germany, Austria
- Vienna-Graz High-Speed Railway Line, 34 km, Austria

#### **URBAN TRANSPORTATION**

- Warsaw Metro Line 2, approx. 20 km, Poland
- Ho Chi Minh City Metro Line 2, 18.6 km, Vietnam
- Lagos Cable Car, 12.5 km, Nigeria

#### ROADS

- A59, 6-Lane Upgrade Duisburg,
  5.5 km, Germany
- B23, Garmisch-Partenkirchen Bypass,
  5.4 km, Germany
- A26, Motorway Linz Western Ring Road, 4.4 km, Austria

#### **AIRPORTS**

- Ashgabat International Airport, capacity of 14+ million passengers per annum, Turkmenistan
- Frankfurt International Airport, capacity of 64+ million passengers per annum, Germany
- Munich International Airport, capacity of 40+ million passengers per annum, Germany

#### **PORTS & MARITIME**

- FSRU Terminal in Gdansk, 4.5–9.0 bn Nm<sup>3</sup>/a, Poland
- LNG Terminal in Odessa, 10 bn Nm<sup>3</sup>/a, Ukraine
- Sonker Terminal Sokhna for Gasoil and LPG, 3 million m<sup>3</sup>/a of LPG, Egypt

#### **TUNNELS & CAVERNS**

- Brenner Base Tunnel, TBM/SEM, 55 km, Austria/Italy
- Future Circular Collider, TBM/SEM, approx. 100 km, Switzerland/France
- Stuttgart 21, Sections 1.2 and 1.6A, TBM/NATM, approx. 16 km, Germany

#### **BUILDINGS & STRUCTURES**

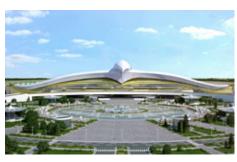
- Hietzing Hospital, 17,500 m<sup>2</sup> gross floor area, Austria
- BIRAGO Barracks, Construction of a New Military Vehicle Maintenance and Repair Facility/Garage Complex, 9,215 m<sup>2</sup> gross floor area, Austria
- New Production Facility for CERATIZIT, 8,300 m<sup>2</sup> gross floor area, 70,000 m<sup>3</sup> gross building volume, Austria

#### **SKI RESORTS**

- Ski Resort Connection Pitztal–Ötztal, 64 ha ski resort, 3 ropeways, Austria
- Shahdag Tourism Complex, EUR 2 billion total investment costs, Azerbaijan
- Roza Khutor Alpine Ski Resort,
  150 ha ski runs, 6 lift facilities including infrastructure, Russia



Warsaw Metro Line 2, Poland



Ashgabat International Airport, Turkmenistan



Roza Khutor Ski Resort, Russia



"World population growth and the increased desire for flexible mobility are constant challenges for our transport systems, making continuous improvements and the establishment of a multimodal network necessary."

Bruno Mattle, Group Director Transportation & Structures

# OIL, GAS & INDUSTRIAL

Oil and gas are energy sources which are integral to almost all aspects of our modern industrial society. The provision of design and consulting services for oil, gas and industrial projects is one of ILF's core focuses. A long history of successful oil and gas projects is testimony to ILF's expertise.



#### **UPSTREAM**

- Halfaya Oil Field Development, 100 mbpd (oil), 69 mmscmd (gas), Iraq
- Nawara Gas Field Development, 100 mmscfd (gas), 7 mbpd (condensate), Tunisia
- Expansion of Lam & Zhdanov Offshore Fields, 220 mmscfd (gas), 87 mbpd (crude oil), 13 mbpd (produced water), Turkmenistan

#### **UNDERGROUND STORAGE**

- Wierzchowice Underground Gas Storage, 600,000 Sm<sup>3</sup>/h (withdrawal rate), Poland
- Crystal Gas Storage Facility, Etzel, 300,000 Sm<sup>3</sup>/h (injection rate), 600,000 Sm<sup>3</sup>/h (gas withdrawal rate), Germany
- Puchkirchen Gas Storage Plant, 520,000 Sm<sup>3</sup>/h (injection and withdrawal rate), Austria

#### **PIPELINES**

- Abu Dhabi Crude Oil Pipeline, 403 km, 48 diameter, UAE
- Trans-Adriatic Pipeline (TAP), 105 km offshore and 883 km onshore, 48 diameter, Greece, Albania and Italy
- Trans-Anatolian Gas Pipeline (TANAP), 1,800 km, 56 and 48 diameter, 7 compressor stations, Turkey

#### **TANK FARMS & TERMINALS**

- Amman Petroleum Product Terminal, 14 oil tanks each with 34,000 m<sup>3</sup> capacity, 5 PLG tanks, Jordan
- Ceyhan Marine Terminal, 50 million t/a capacity, 7 tanks each with 150,000 m<sup>3</sup>, Turkey
- Chittagong Refinery Import Terminal and Offshore Pipelines, 150,000 m<sup>3</sup> capacity, Bangladesh

#### LIQUEFIED NATURAL GAS (LNG)

- LNG Import Terminal in Odessa, 3 tanks with 540,000 m<sup>3</sup> total storage volume, Ukraine
- FSRU Terminal in Gdansk, 4.5–9.0 bn Nm<sup>3</sup>/a capacity, Poland
- Kutubdia Offshore LNG Terminal, 130,000–145,000 m<sup>3</sup> of LNG FSU, 500–600 mmscfd Regasification Unit, Bangladesh

#### REFINING

- SNOx Combined Flue Gas SOx/NOx Reduction Plant, Schwechat, flow rate 820,000 Nm<sup>3</sup>/h, Austria
- Petrobrazi Refinery, Naphtha Splitter, 76.5 t/h feed rate, Romania
- Arpechim Refinery, Dust Filter for FCC Plant, 190,000 Sm<sup>3</sup>/h gas and 28.5 g/Sm<sup>3</sup> maximum dust emission level, Romania

#### **CHEMICALS & PETROCHEMICALS**

- LD3 & LD4 High Pressure Reactor, Austria
- Gas to urea and polyolefin complex based on 150 mmscfd natural gas
- Revamp of LDPE production facility, 70 kt/a acrylate copolymers

#### MINING

- Copper Mine Centinela, Infrastructure and Sea Water Supply, Chile
- Copper Mine Esperanza, Infrastructure and Sea Water Supply, Chile
- Katco Uranium Mine, Kazakhstan



Trans-Anatolian Gas Pipeline (TANAP), Turkey



Amman Petroleum Product Terminal, Jordan



Halfaya Oil Field Development, Iraq



*"ILF is passionate about finding solutions to supply the world with safe and reliable energy and chemicals."* 

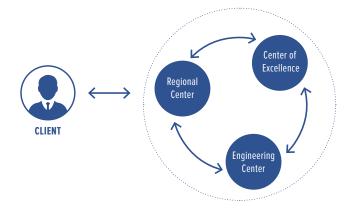
Christian Heinz, Group Director Oil, Gas & Industrial

## OFFICES AROUND THE WORLD

In the past decade, the engineering services market has undergone some major changes. Nowadays, international clients request closer cooperation with engineering partners on site, meaning engineers need to be within a reasonable proximity to clients.

There is also growing demand to train local personnel so that they can carry out the jobs instead of bringing in outside personnel. At the same time, ILF's clients also expect international experience and expertise.

ILF's comprehensive, group-wide approach, termed ONE ILF, allows the changing needs of clients to be met.



ONE ILF is based on the belief that optimized internal cooperation, and combining the competencies and capacities available in all ILF Group companies, provides maximum benefit for clients.



40 offices across five continents

#### AMERICAS

99

Calgary Lima Quito Santiago de Chile Seattle

EUROPE

Baar

Baku

Bremen

Dnipro

Genoa

Graz

Dornbirn

Hamburg

Innsbruck

Katowice Leipzig/Halle

#### EUROPE

Leobersdorf Linz Moscow Brixen/Bressanone Munich Ploiesti Prague Stathelle Stuttgart Tbilisi Vienna Warsaw Zurich

**AFRICA** Accra

Lagos

#### **MIDDLE EAST**

#### Abu Dhabi Al Khobar Amman Dubai Erbil Riyadh

**ASIA-PACIFIC** 

Almaty Ankara Atyrau Bangkok Beijing Lahore Mumbai Vientiane

# INNOVATIVE THINKING

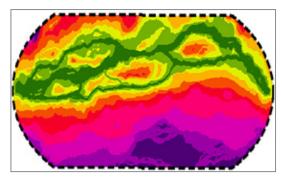
As demonstrated from the very start by the company founders, ILF places great importance on innovative solutions. The technical solutions, materials and work stages, as well as work processes and tools used by ILF, reflect the Group's understanding and promotion of innovation.

> "Digitalization is one of ILF's key focuses, in order to further improve the service quality and overall efficiency within the company." Klaus Lässer, CEO



ILF works together with universities and public and private entities to participate in research projects in different sectors. In addition, ILF is actively involved in various working groups, developing new guidelines and concepts.





#### SUSTAINABLE HYDROPOWER ENGINEERING

RenRisk identifies the best possible project option and simultaneously optimizes technical, economic and risk aspects, thus creating certainty for all stakeholders.

#### **GIS-BASED CONSTRAINT MAPPING**

A multi-criteria method to optimize the alignment of traffic and transport projects.



#### I-FLOW

A unique hydraulic software program for designing and simulating pipeline systems and power plants.



#### **RENEWABLE ENERGY DESALINATION**

A pilot plant to research and develop energy-efficient, cost-competitive desalination technologies.





www.ilf.com