

Fichtner Water & Transportation GmbH is an internationally renowned consulting engineering firm specialising in infrastructure projects. The company, which can point to 85 years of professional experience, is based on the merger of the water and sanitation sector of Messrs. Fichtner GmbH & Co KG (Stuttgart) with its affiliated companies Beller Consult GmbH (Freiburg), WTL Wassertechnik Leipzig GmbH and abc - associated business consultants GmbH (Essen).

By both concentrating and expanding the available resources, we have created a highly efficient centre of competence and specialised knowledge covering the sectors of water, transportation and environmental engineering. This enables us to perform both national and international project and consultancy tasks for our clients in a most concentrated and successful manner, particularly in the fields of:

- Water supply and sanitation
- Hydraulic engineering
- Traffic planning, transportation infrastructure
- Environmental engineering
- Mining and mineral economics

The range of services offered by Fichtner W&T mainly includes:

- Studies (technical, economical, environmental, sociological)
- Preliminary, tender and final design studies
- Surveys (topographic, inventory, demographic, etc.) and investigations
- Preparation of tender documents, tender evaluation and assistance in contract award
- Construction supervision and project monitoring during the defects liability period
- Development and redevelopment planning
- Operational assistance
- Training and upgrading, technology transfer
- Technical assistance with a view to ensuring project sustainability
- Management consulting services to private and public entities.



Transport



Water



Environment



Supporting measures

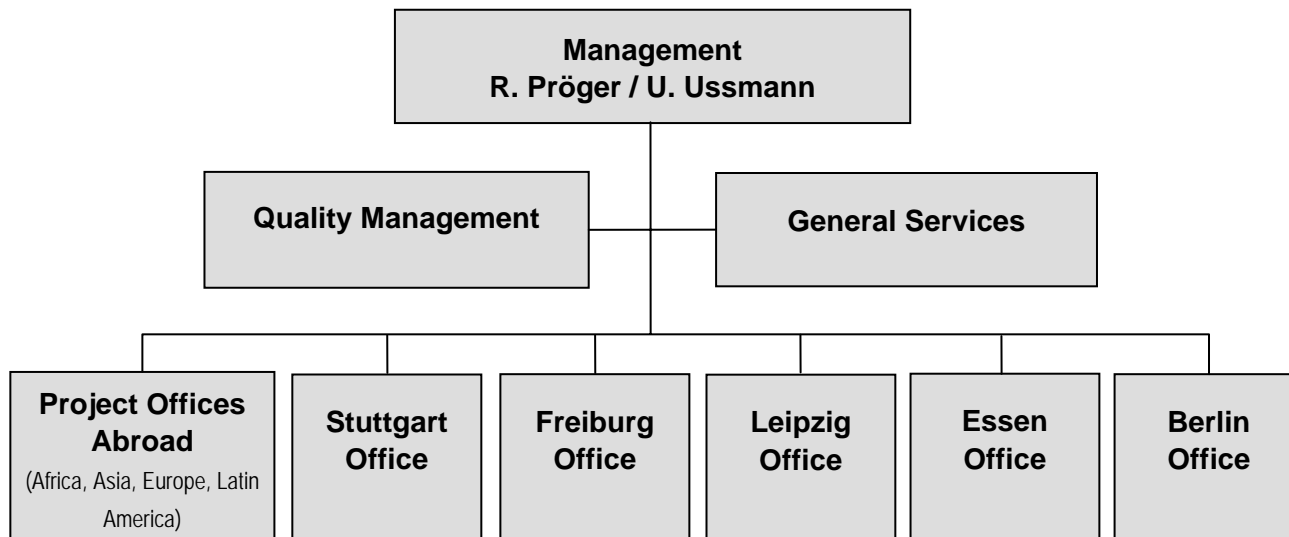
Fichtner W&T's clients - major public institutions, donor agencies and private enterprises in Germany and from all over the world - are served by a multidisciplinary team of about 130 specialised key staff working both at the German offices in Stuttgart, Freiburg, Leipzig, Essen and Berlin as well as in numerous branch offices abroad. Fichtner Water & Transportation thus ranks among the most important German consulting engineering firms operating on an international level.

Fichtner W&T forms part of the **Fichtner Group**, Stuttgart, which employs more than 1,700 staff worldwide. Additional professional expertise and resources are thus available to us which enable us to handle also very complex and highly specialised engineering and consultancy work which often requires a cross-sectoral approach.

Company Name:	Fichtner Water & Transportation GmbH
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Leipzig Office:	Löbauer Str. 68, 04347 Leipzig / Germany Phone: +49 – 341 / 24293-0 Facsimile: +49 – 341 / 24293-33
Essen Office:	Dreilindenstr. 84, 45128 Essen / Germany Phone: +49 - 201 / 176759-10 Facsimile: +49 - 201 / 176759-11
Berlin Office:	Schlüterstr. 54, 10629 Berlin / Germany Phone: +49 – 30 / 609765-17 Facsimile: +49 – 30 / 609765-78
Internet:	E-mail: info@fwt.fichtner.de Internet: www.fwt.fichtner.de
Legal Status:	Limited Liability Company
Established:	October 2003 Trade Register Stuttgart HRB 725740 Predecessor company: Beller Consult GmbH: 30.6.57
Managing Directors:	Dipl.-Ing. Roland Pröger, Civil Engineer Dipl.-Ing. Ulrich Ussmann, Civil Engineer
Supervisory Board:	Georg Fichtner (Chairman)
Extended Management Board:	Dr.-Ing. Andreas Clausen Dipl.-Ing. Lutz Deeken Dipl.-Ing. Ulf Meyer-Scharenberg Dipl.-Ing. Daniel Posselt Dipl.-Ing. Michael Seifert Dr. rer. nat. Bernd Vels

Organisation Chart

Fichtner Water & Transportation GmbH's organisational structure is as follows:



Contact

International Activities:

Lutz Deeken	Direction Office Stuttgart / Business Development
Ulf Meyer-Scharenberg	Direction Office Freiburg / Projects

Activities in Germany:

Daniel Posselt	Direction Activities in Germany and Direction Office Leipzig
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Freiburg Office:

Dr. Andreas Clausen	Head of Transportation Department
Matthias Wollny	Head of Water and Environment Department

Leipzig Office:

Jan Kretzschmar	Head of Hydraulic Engineering Department
Michael Mädler	Head of Sanitation Department
Michael Seifert	Head of Potable Water Supply Department
Lutz Zechmann	Head of Environment and Transportation Department

Essen Office:

Nikolaus Linder	Direction Office Essen
Dr. Bernd Vels	Head of Mining and Mineral Economics Department

Berlin Office:

Jürgen Ahrens	Direction Office Berlin / Development and Supervision of OptNet® Software
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Personnel Structure

Qualification / Field of Assignment	2008	2009	2010
Transport Infrastructure / Traffic Engineering:	11	13	13
Hydraulic Engineering:	23	28	29
Water Supply and Sanitation:	72	74	76
Waste Management:	6	8	10
Environmental Engineering:	16	19	21
Management and Administration:	23	25	27
Technicians and Technical Drawers:	13	13	13

Range of Activities

Water Supply and Sanitation

- Water supply
 - Hydrogeology
 - Water resources management
 - Water abstraction and treatment
 - Pumping stations
 - Distribution networks
- Wastewater disposal
 - Sewage disposal and drainage master plans
 - Sewer networks including hydrodynamic calculations
 - Pollution load calculations
 - Stormwater detention and treatment
 - Sewage and sludge treatment plants
 - SCADA systems



Hydraulic Engineering

- Hydrology / Hydraulics
- River engineering
- Flood defence / Coastal protection
- Restoration / development of aquatic systems
- Waterway engineering including locks
- Hydropower plants and storage dams
- Harbour construction



Transportation Infrastructure and Traffic Engineering

- Traffic planning
- Public transport concepts
- Transportation development concepts
- Transportation infrastructure (roads, railroads)
- Noise control
- Road maintenance
- Urban and regional planning



Environmental Engineering

- Solid waste management / Sanitary landfill planning
- Rehabilitation of contaminated sites / Area recycling
- Groundwater protection
- Geothermal energy
- Environmental impact assessments / FFH compatibility checks
- Green space planning
- Immission control (noise, air pollutants)
- GIS (geodata, environmental monitoring)



Mining and Raw Materials

- Consulting services to the mining industry
- Mine rehabilitation
- Mine planning
- Redevelopment of post-mining landscapes
- Ecological monitoring
- Mineral economics
- Mineral resources geology
- CO₂-evaluations / CCS assessments



Key Services

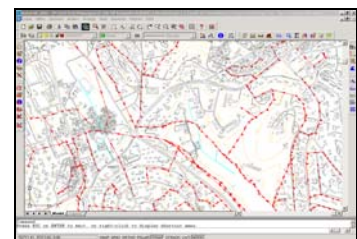
Our company provides comprehensive planning, design and technical assistance services required for the implementation and operation of works and installations in the afore-mentioned fields of the civil engineering sector. Further services include all necessary supporting measures to ensure the sustainability of each individual project as well as management consulting services to public and private entities.

Preparatory studies

- Project identification
- Master plans for development and feasibility studies
- Weak point analyses
- Socio-economic studies
- Environmental studies
- Tariff studies

**Project planning**

- Inventories and baseline investigations
- Topographic and hydrographic surveys, GIS
- Development studies
- Preliminary, tender and final design studies
- Quantities and cost estimates, tendering

**Project implementation**

- Tender evaluation
- Site supervision and coordination of construction works
- Project management
- Schedule, cost and quality control
- Final handing-over and start-up operation
- Operations planning and operational optimisation
- Safety and health coordination

**Supporting measures for project sustainability**

- Community development
- Training and upgrading
- Community relations
- Awareness building
- Health education
- Technical assistance



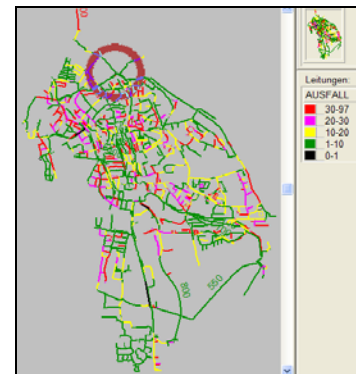
Management consulting

- Institutional strengthening
- Creation and organisation of public/private entities
- Asset valuation, management valuation
- Privatisation consultancy

**Optimisation of supply networks and maintenance strategies using the OptNet® software**

(property of Fichtner IT Consulting AG and Fichtner Water & Transportation GmbH)

- Financial and technical evaluation of water supply, gas and power supply networks (module for the evaluation of district heating networks to follow soon)
- Inventories and risk analyses
- Determination of rehabilitation requirements
- Diameter optimisation and optimal network design
- Calculation of network efficiency and demonstration of efficiency increase depending on available rehabilitation budgets
- Integrated asset management



Regional Experience



In the course of its company history, Fichtner Water & Transportation GmbH has been engaged in the following countries:

Africa

Algeria
Benin
Burkina Faso
Burundi
Cameroon
Cape Verde
Central African Republic
Chad
Comoros
Congo (Brazzaville)
Congo (Zaire)
Eritrea
Ethiopia
Equatorial Guinea
Gabon
Gambia
Ghana
Guinea
Guinea-Bissau
Ivory Coast
Kenya
La Réunion
Lesotho
Liberia

Libya
Madagascar
Malawi
Mali
Mauritania
Mauritius
Morocco
Mozambique
Namibia
Niger
Nigeria
Rwanda
Senegal
Seychelles
Sierra Leone
Somalia
Sudan
Tanzania
Togo
Tunisia
Uganda
Zambia
Zimbabwe

Asia/Pacific

Afghanistan

Bangladesh
China
India
Indonesia
Kazakhstan
Kyrgyz Republic
Malaysia
Pakistan
Philippines
South Korea
Sri Lanka
Taiwan
Tajikistan
Thailand
Tonga
Uzbekistan
Vietnam

Europe

Albania
Austria
Belarus
Bosnia-Herzegovina
Bulgaria
Cyprus
Finland

France
Germany
Great Britain
Greece
Hungary
Lithuania
Luxembourg
Macedonia
Montenegro
Netherlands
Portugal
Romania
Russia
Serbia
Spain
Switzerland
Turkey
Ukraine
Yugoslavia

**Latin America/
Caribbean**

Argentina
Bolivia
Brazil
Colombia
Costa Rica

Cuba
Ecuador
El Salvador
Guatemala
Guyana
Haiti
Honduras
Nicaragua
Paraguay
Peru
Trinidad & Tobago
Venezuela

Middle East

Bahrain
Iran
Iraq
Jordan
Kuwait
Oman
Saudi Arabia
Syria
United Arab Emirates (UAE)
Yemen

Branch Offices

El Salvador

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Guinea

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Granada

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Bolivia

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Rabat

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Ggaba Road, Kansanga, Plot N° 564
P.O. Box 4052
Kampala

Phone/Fax: (+256) 41 42 67 67 0
E-mail: belleruganda@infocom.co.ug
Contact: Erhard Schulte

Local Offices

Fichtner Water & Transportation GmbH is currently represented by local offices in:

Afghanistan

Congo (Brazzaville)

Romania

Armenia

Ecuador

Saudi Arabia

Bahrain

Equatorial Guinea

Tanzania

Benin

Ghana

Tunisia

Bolivia

Honduras

United Arab Emirates

Brazil

Jordan

Vietnam

Burundi

Lebanon

Fichtner W&T is working for the following donor agencies:

- African Development Bank (AfDB)
- Arab Bank for Economic Development in Africa (BADEA)
- Asian Development Bank (ADB)
- Caribbean Development Bank (CDB)
- Economic Community of West African States (ECOWAS)
- European Bank for Reconstruction and Development (EBRD)
- European Development Fund (EDF)
- European Union: Phare/ISPA, Tacis, Obnova and Tafko
- German Agency for Technical Co-operation (GTZ)
- Inter-American Development Bank (IDB)
- Islamic Development Bank (ISLAMIC DB)
- Japan International Cooperation Agency (JICA)
- KfW Entwicklungsbank
- OPEC Fund for International Development
- Salvadorian Preinvestment Studies Fund (FOSEP)
- Saudi Fund for Development (SAUDI FUND)
- United Nations Development Programme (UNDP)
- West African Development Bank (BOAD)
- World Bank (IBRD, IDA)

Memberships in Professional Associations:

- | | |
|---|--|
| <ul style="list-style-type: none"> ▪ Altlastenforum Baden-Württemberg
(Forum for Residual Pollution Loads of the State of Baden-Württemberg)
c/o VEGAS
Institut für Wasserbau, University of Stuttgart
Pfaffenwaldring 61
70550 Stuttgart/Germany | <ul style="list-style-type: none"> ▪ Forschungsgesellschaft für das Straßen- und Verkehrswesen e.V.
(Road and Transportation Research Association)
Maastrichter Str. 45
50672 Köln/Germany |
| <ul style="list-style-type: none"> ▪ BWK
(Association of Water Resources, Waste Management and Land Reclamation Engineers)
Pappelweg 31
40489 Düsseldorf/Germany | <ul style="list-style-type: none"> ▪ Hafenbautechnische Gesellschaft
(Technical Association for Harbour Construction)
Dalmanstr. 1
20457 Hamburg/Germany |
| <ul style="list-style-type: none"> ▪ Deutsches Talsperrenkomitee
(German Committee on Large Dams) - Member of the ICOLD (International Committee on Large Dams)
Graf-Recke-Str. 84
40239 Düsseldorf/Germany | <ul style="list-style-type: none"> ▪ Verband Beratender Ingenieure e.V.
(German Association of Consulting Engineers)
Budapester Str. 31
10787 Berlin/Germany |
| <ul style="list-style-type: none"> ▪ DWA Deutsche Vereinigung für Wasserwirtschaft, Abwasser und Abfall e.V.
(German Association for Water, Wastewater and Waste)
Theodor-Heuss-Allee 17
53773 Hennef/Germany | <ul style="list-style-type: none"> ▪ DVGW
(German Association for Gas and Water)
Josef-Wirmer-Str. 1-3
53123 Bonn/Germany |
| <ul style="list-style-type: none"> ▪ DWA LV Sachsen-Thüringen AG Gewässer-Nachbarschaften
(German Association for Water, Wastewater and Waste-Regional Association Saxony-Thuringia)
Lockwitztalstr. 20
01259 Dresden/Germany | <ul style="list-style-type: none"> ▪ Deutsches Verkehrsforum
(German Transport Forum)
Klingelhöfer Str. 7
10785 Berlin/Germany |