



SIEMENS

# Rushing rush hour.

Abu Dhabi plans its growing traffic wisely. With answers from Siemens.

You can tell how fast Abu Dhabi is expanding from the queue at the Traffic and Licensing Department. In three years, the emirate has added nearly 100,000 newly licensed drivers. But with the help of Siemens traffic

control technology, the streets of Abu Dhabi keep moving. Today's toughest questions require wise leadership – supported by a company with answers and a 150-year history in the Middle East.

[siemens.com/answers](http://siemens.com/answers)

Arab-German Yearbook 2011 • Construction and Consulting



## Arab-German Yearbook 2011

*Construction and Consulting*

[www.ghorfa.de](http://www.ghorfa.de)



# SPORTS ARENA OF THE FUTURE

SPORTS • HEALTH • EDUCATION • SOCIAL AFFAIRS



KIDS SPORTS WORLD



SOCCER ARENA



GASTRONOMY



CHARITIES & EVENTS

SPORTAINMENT GROUP GMBH • INFANTERIESTR. 19 / HAUS 5 • 80797 MÜNCHEN • GERMANY

T: +49 (0)89 - 99 27 55 90 • F: +49 (0)89 - 99 27 55 99 • MAIL: S.SCHÄFFELHUBER@SPORTAINMENTGROUP.COM

WWW.SOCCAFIVE.COM

## Table of Contents

### 8 Preface

- Dr. Peter Ramsauer
- Dr. Thomas Bach/Abdulaziz Al-Mikhlafi
- Olaf Hoffmann

### 12 Projects

#### 12 Algeria

- New Algiers Central Station Hamma

#### 16 Bahrain

- National Master Plan for Sanitary Engineering in the Kingdom of Bahrain

#### 20 Egypt

- The New Naga Hammadi Barrage
- Restorative Cleaning of the Colossi of Memnon

#### 28 Iraq

- Rebuilding Iraq

#### 32 Jordan

- Aviation Consulting in the Hashemite Kingdom of Jordan

#### 36 Kuwait

- Environmental Monitoring Information System of Kuwait (eMISK)
- New Grain and Flour Silo Complex in Kuwait

#### 46 Lebanon

- Port of Beirut Development: Container Terminals
- Multiutility Metering Solution for the Souk of Beirut

#### 54 Libya

- Oases Tourism Development in Libya

#### 58 Morocco

- Wind Energy in Morocco – 50 MW at Haouma Site

# Table of Contents

## 62 Oman

---

- The Billion-Euro Project in Oman. Circular Girder and Custom Formwork for an Ore Processing Plant

## 66 Palestine

---

- Building Learning-Friendly Schools in the Palestinian Territories

## 72 Qatar

---

- 2022 FIFA World Cup™ Awarded to Qatar – The Concepts for It Were Developed in Frankfurt
- FIFA World Cup 2022 Application by Qatar. Exhibition and Media Pavilion
- Transport Master Plan for Qatar
- Qatar Airways – the Rise of one of the Fastest Growing Airlines in the World

## 88 Saudi Arabia

---

- State-of-the-Art Signaling and Telecommunications Technology for a Railway Line in Saudi Arabia
- Medina Airport
- King Road Tower in Jeddah

## 98 Sudan

---

- From Khartoum to Port Sudan: Construction of a New Railway Line

## 102 Syria

---

- Energy-Efficient Housing in Syria

## 108 Tunisia

---

- Utility Scale Solar Electricity Generation from CSP and PV in Tunisia – a Comprehensive Pre-Feasibility Study

## 114 United Arab Emirates

---

- Jebel Hafeet Glacier Development Al Ain. Emiratis Housing Development (EHD)
- Envelope of the Yas Hotel in Abu Dhabi
- Recycling: Sustainable Pay-off

## 126 Yemen

---

- Tourism Development Mukalla

## 130 Germany

---

- Phæno Science Center Wolfsburg
- BMW Central Building, Plant Leipzig

## 136 Special Topics

---

- The Master Plan Abu Dhabi 2030 – A Blueprint for a Modern Arab Society
- Legal Framework to Mitigate and Insure Risks in Construction and Infrastructure Projects in the Arab World. The Law of the State of Qatar
- Solar Energy: The Future Has Begun. In Kuraymat, Egypt's First Solar Energy Power Plant Is Working
- Wacker Academy Dubai
- A New Approach to Master Planning in the MENA Region – the Case of Greater Cairo
- Enhanced Design and Construction Technologies for a Sustainable Infrastructure and the Foundation of High-Rise Buildings

## 156 List of Contributors

---

## 166 Imprint

---

# Preface



Dr. Peter Ramsauer

The Arab world is undergoing a radical change. Together with its partners in Europe and in the world Germany is promoting all efforts to make this a peaceful process. The decisive factor hereby is that we continue our positive economic cooperation. The German industry and especially the construction industry can make a concrete contribution to a positive restart.

In recent years major projects which created quite a stir were realized especially in the Gulf states. And in other Arab countries, too, the construction sector enjoyed a boom until the time of unrest. The Arab countries should resume this positive development in the upgrading of the infrastructure as soon as possible. The reason is that investments in the infrastructure are not least investments in the economic prosperity of the entire population and thus also for a peaceful development.

For German construction companies many countries of the Arab region are of extraordinary importance. More than ever German technical know-how, German investment and strategic partnerships with the region are in demand to be able to master the ambitious investment plans. And here Germany as well as the Arab countries can build on long years of trusting relations. With their advanced technologies, comprehensive special know-how, experience in the services sector and specific market knowledge German companies are ideally suited to assist the Arab course of change and modernization.

The present Ghorfa Yearbook 2011 'Construction and Consulting' is dedicated to interesting building projects in the Arab world which are carried out by German construction

companies and consulting engineers. It is a welcome fact that this year for the first time the yearbook also presents projects which were realized by Arab architects, planners or construction managers in Germany. The yearbook shows impressively how successful the economic partnership between Germany and the Arab states already is today. In view of the alarming events in many countries of the Arab world I would like to emphatically encourage all the participants in the German-Arab Economic Forum to do everything they can for a peaceful development. The mutual economic relations can make a contribution to this which should not be underestimated.

**DR. PETER RAMSAUER**

Federal Minister of Transport, Building and Urban Development

# Preface



Dr. Thomas Bach



Abdulaziz Al-Mikhlaifi

Based on the success of the 'Arab-German Yearbook Construction and Consulting 2010', we are proud to present an updated version of this publication.

Over the last decade, construction businesses developed very positively in the Arab world. This is in particular true for the United Arab Emirates as the home of the world's highest structure, the Burj Khalifa in Dubai, and of the largest building in terms of total floor area, Terminal 3 of the Dubai International Airport. Due to this ongoing boom in the Arab world, Ghorfa Arab-German Chamber of Commerce and Industry has decided to publish an annual reference work. This publication aims to give an overview on construction and consulting projects in the Arab world which are already or will be realised by German companies in cooperation with Arab and international partners.

During the process of preparing this book, we learnt about increasing collaborations between Arab and German companies in the different fields of the construction and consulting businesses. These collaborations are characterised by mutual understanding and high benefit for both partners. Clearly, Arab countries are considering German companies as credible partners and are inviting them to participate in the continuing economic growth. German engineers, architects and constructors are influencing the Arab way of construction. At the same time, Arab engineers are also making significant contributions to the development of projects in Germany. Since the decision by FIFA to hold the 2022 World Cup in Qatar opens up a lot of new business possibilities, we decided to put a special emphasis on ongoing or planned projects in Qatar.

We would like to thank our member companies who are deeply involved in the activities of our chamber for their support and contribution to this yearbook. The Ghorfa working group 'Infrastructure, Construction and Transport' is chaired by Olaf Hoffmann (CEO Dorsch Holding GmbH) and is a great platform for our members to enter into industry-specific networks. Therefore, each member of Ghorfa can be a part of a dynamic network of professionals in order to analyse, anticipate and discuss developments in the Arab world. The last meeting of the working group was held in Doha as part of the programme of the economic delegation accompanying the President of the Federal Republic of Germany, H.E. Christian Wulff, during his official visit to Qatar and Kuwait in March 2011.

The Ghorfa Arab-German Chamber of Commerce and Industry actively promotes and strengthens business relations among its members and among the Arab and German business community in general. We pave the way for strengthening business cooperation in the fields of trade, industry, finance and investment. We are convinced that strategic partnerships, based on mutual benefit and understanding, are creating new business opportunities for both sides. This is why we are proud to present you successful examples of collaboration in the field of infrastructure, construction and transport and warmly invite you to contribute to the next edition of our 'Arab-German Yearbook Construction and Consulting 2012'.

**DR. THOMAS BACH**  
President

**ABDULAZIZ AL-MIKHLAIFI**  
Secretary General

# Preface



Olaf Hoffmann

We are very pleased to present the second edition of our 'Arab-German Yearbook Consulting and Construction'. At the beginning of our century, Arab markets just added colourful detail to the media business coverage: Dubai for instance was described as a firework with no long-term impact. However, in the last two years, the Arab world has shown a remarkable resilience in coping with the debilities of globalisation: on the basis of oil and oil exports, the Arab world has built up a stable, productive and growing economy. Trends like sustainability are picked up immediately with great enthusiasm like in Masdar City. The region with its technically wise and ambitious projects is becoming more and more a laboratory of the international construction industry. The latest success, Qatar winning the hosting of the FIFA World Cup 2022, is showing again the enormous potential of the Arab world.

In times of challenging economies Arab countries remain the biggest construction sites in the world: with a great many major projects in UAE, Saudi Arabia, Qatar and Kuwait our industry is satisfying the growing demands of a continuously growing population. Without exception, the less dynamic countries will in the future invest enormously in their logistics, roads and railroads, ports, airports, energy, communications and urban extension, too. Supported by the desire for higher, 'western' standards, these Arab countries will not only invest in new constructions but also in the improvement of existing infrastructure as water supply and sewerage.

Thus, it seemed to be the right time last year to keep track of the development of Arab economies by starting

an annual publication. The successful first yearbook 2010 was out of stock after two months, so we asked to print 4,000 copies for this edition. But it is not our objective to grow just in quantity. We want to advance the quality of articles and contributions, too. Thus, we picture not only major developments in our target markets, we also want to mirror the ideas and visions of our Arab friends. The yearbook will be a general indicator for future trends and a transparent and independent basis for dynamic discussions. To show the whole picture it would not be sufficient just to put the focus on impressive architecture, big infrastructure or renewable energy projects. Thus, this yearbook and its sequels are again dedicated to describe the Arab world of today and tomorrow.

This Arab-German Yearbook would not have been possible without the contribution of companies considerably engaged in the Arab world like Siemens, Lufthansa, KfW, Ferrostaal, Wacker and many others. I therefore want to very warmly thank all who contributed to the 'Arab-German Yearbook Consulting and Construction 2011', we really appreciate their readiness of sharing their insights. Enjoy reading!

**OLAF HOFFMANN**  
CEO and shareholder of Dorsch Holding GmbH

Chairman of the Working Group 'Infrastructure, Construction and Transport'  
Ghorfa Arab-German Chamber of Commerce and Industry

## Ghorfa Arab-German Chamber of Commerce and Industry

Building Bridges between Germany and the Arab World

### ABOUT US

The Ghorfa Arab-German Chamber of Commerce and Industry is the competence centre for business relations between Germany and the Arab world. It was founded in 1976 on the initiative of Arab as well as German decision-makers and since 1 August 2000, it is located in Berlin. The Board of Directors and the Executive Board equally consist of German and Arab members. This guarantees balance and mutual trust. Not only major German and Arab enterprises are among our members, numerous small and medium-sized enterprises complete our top-class network.

### OUR NETWORK

The Ghorfa operates under the umbrella of the General Union of Chambers of Commerce, Industry and Agriculture for Arab Countries and acts as the official representative of all Arab Chambers of Commerce and Industry in Germany. Our chamber works closely with the Arab embassies in Germany, the Arab League and related governmental bodies in the Arab states. It is part of the worldwide organisation of Arab foreign Chambers of Commerce and Industry. The Ghorfa cooperates with German governmental bodies on federal and regional level and the most important German industrial associations.

### WHAT WE DO

We actively promote and strengthen business relationships among our members and within the wider Arab and German business community. We pave the way for stronger business cooperation in the fields of trade, industry, finance and investment between Arab and German business partners. Strategic partnerships based on mutual benefit and understanding create new business opportunities to facilitate economic benefits for both sides. We therefore mainly focus on networking, communication and on providing information about relevant economic and industrial developments.

### NETWORKING

- Quick access to decision-makers from industry and politics
- Organisation of delegation visits
- Organisation of events, conferences and further contact platforms (e.g. German-Arab Business, Energy, Tourism, Health, Education and Vocational Training)
- Ghorfa joint booths at major Arab and German trade fairs
- Promoting member services and products to a wider business community

### CONSULTING

- Connecting with matching business partners
- General and business-related intercultural consulting
- Country and branch specific analysis
- Mediation and arbitration in cases of business disputes
- Advice and guidance through the multitude of offers and competing products on the German and Arab market
- Comprehensive and detailed market information about Germany and the 22 Arab states
- Visa support

### INFORMATION

- Early information about projects and tenders
- Monthly issued Arabic and German newsletters
- Quarterly bilingual business magazine SOUQ
- Arab-German Trade Directory providing over 6,000 yearly updated company profiles
- Arab-German Yearbooks that focus on industry-sector specific topics
- Information on the latest economic developments, markets and sectors, legal and political background

**We welcome you to become part of the high-level network that we provide for professionals and business leaders from the Arab world and Germany.**

**Join us and share our vision of prospering Arab-German business relations.**

For further information concerning membership in our chamber please contact us:

### Ghorfa

Arab-German Chamber of Commerce and Industry e.V.  
Garnisonkirchplatz 1  
D-10178 Berlin  
Tel: +49 30 278907-0  
Fax: +49 30 278907-49  
E-mail: [ghorfa@ghorfa.de](mailto:ghorfa@ghorfa.de)  
Internet: [www.ghorfa.de](http://www.ghorfa.de)

## List of Contributors





ALLSAT

**Project:**

Environmental Monitoring Information System of Kuwait (eMISK)

**Contact:**

Siegfried Krüger, Managing Director

Am Hohen Ufer 3A  
D-30159 Hannover  
Tel: +49 511 30399-0  
Fax: +49 511 30399-66  
E-mail: siegfried.krueger@allsat.de  
www.allsat.de

ALLSAT is a leading enterprise in GNSS applications, equipment and consulting, distributing high-end surveying and navigation solutions by LEICA and JAVAD and offering highly specialised surveying services, in particular in the areas of GNSS and deformation monitoring.



Amereller Rechtsanwälte

**Project:**

Legal Framework to Mitigate and Insure Risks in Construction and Infrastructure Projects in the Arab World. The Law of the State of Qatar

**Contact:**

Oliver Alexander

Maedler Haus  
Friedrichstr. 58  
D-10117 Berlin  
Tel: +49 30 609 8956-60  
Fax: +49 30 609 8956-69  
E-mail: oa@amereller.com  
www.amereller.com

Amereller – Rechtsanwälte is an international law firm with particular focus on corporate and commercial law in the Middle East. The firm represents more than half of the DAX 30 enterprises and advises on the entire spectrum of business law relevant to foreign companies. The firm maintains offices in Munich, Berlin, Cairo, Dubai, Ras Al Khaimah, Damascus, Baghdad, Basrah and Erbil.



AS&P – Albert Speer & Partner GmbH  
architects, planners

**Project:**

2022 FIFA World Cup™ Awarded to Qatar – the Concepts for It Were Developed in Frankfurt  
A New Approach to Master Planning in the MENA Region – the Case of Greater Cairo

**Contact:**

Vera Deus, Head of PR Department

AS&P – Albert Speer & Partner GmbH  
Hedderichstr. 108–110  
D-60596 Frankfurt am Main  
Tel: +49 69 605011-0  
Fax: +49 69 605011-500  
E-mail: mail@as-p.de  
www.as-p.de

AS&P combines innovative methods in architecture, urban design and transportation planning to provide clients with holistic solutions. AS&P can draw on many decades of experience in designing and managing international planning projects. The company's portfolio likewise includes regional development and project management through to megaevent planning and expert consultancy for politicians.



ATKON AG

**Project:**

FIFA World Cup 2022 Application by Qatar. Exhibition and Media Pavilion

**Contact:**

Sven Woerner

Leipziger Platz 8  
D-10117 Berlin  
Tel: +49 30 347474-334  
Fax: +49 30 347474-401  
Cell: +49 163 5751334  
E-mail: s.woerner@atkon.de

ATKON AG, as a communication company, is among the top 20 communication agencies in Germany. Moving-image communication, public relations and live communication are intelligently combined, with regard to technology, organisation and content. In this way, long-term, efficient communication solutions are created with passion and commitment for companies, brands and locations.



Bilfinger Berger Ingenieurbau GmbH

**Project:**

The New Naga Hammadi Barrage

**Contact:**

Mr Uwe Krenz, Tel: +49 172 6345870  
Mr Henri Lyachenko, Tel: +49 611 708966

Bilfinger Berger Ingenieurbau GmbH  
Gustav-Nachtigal-Str. 3  
D-65189 Wiesbaden

Bilfinger Berger Ingenieurbau GmbH, as a group member of Bilfinger Berger SE, is one of the world's most renowned and reliable infrastructure providers. With highly specialized units and leading technologies, innovations and the necessary cultural and social expertise, Bilfinger Berger provides interdisciplinary solutions from a single source.



dan pearlman Markenarchitektur GmbH

**Project:**

FIFA World Cup 2022 Application by Qatar. Exhibition and Media Pavilion

**Contact:**

Diana Kaufmann | Head of Marketing & Corporate Communications

Kiefholzstr. 1  
D-12435 Berlin  
Tel: +49 30 530005-60  
Fax: +49 30 530005-88  
E-mail: office@danpearlman.com  
www.danpearlman.com

dan pearlman is a strategic creative agency of 40 people, working interdisciplinary across the areas of brand and leisure, strategy and implementation. The agency differentiates itself through its holistic approach, combining strengths from twelve different fields: Branding, Research & Innovation, Internal Branding, Brand Experiences, Fairs & Events, Retail, Visual Communication, Motion, Public Relations, Hospitality, Leisure and Zoo.



Diehl Middle East FZE

**Project:**

Multiutility Metering Solution for the Souk of Beirut

**Contact:**

Mohamad Hoteit

P.O. Box 261507  
Dubai, U.A.E.  
Tel: +97 14 8849-237  
Fax: +97 14 8849-239  
E-mail: service@diehl-middle-east.ae  
www.diehl-middle-east.ae

DIEHL Metering Group with its subsidiaries Hydrometer, Hydrometr Electronic, Diehl Middle East, EVB, Diehl Gas Metering, Sappel, MOM and Mirometr designs, develops and produces metering solutions for water, thermal energy, gas and electricity which cover the whole of today's energy spectrum – including integrated communications capability to meet the high economic and ecological requirements of the third millennium.



Dornier Consulting GmbH

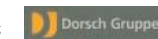
**Project:**

From Khartoum to Port Sudan: Construction of a New Railway Line

**Contact:**

Ralf Allrich, Director Railways  
Platz vor dem Neuen Tor 2  
D-10115 Berlin  
Tel: +49 30 253991-91  
Fax: +49 30 253991-99  
Cell: +49 151 52630101  
E-mail: ralf.allrich@dornier-consulting.com  
www.dornier-consulting.com

Dornier Consulting is an internationally recognised consulting, engineering and project management company for traffic, transportation, infrastructure and the environment/water. Through innovative consulting, advanced engineering and professional project management, Dornier Consulting realises forward-looking solutions for sustainable mobility and the environment.



Dorsch Holding GmbH

**Project:**

The Master Plan Abu Dhabi 2030 – a Blueprint for a Modern Arab Society

**Contact:**

Kerstin Schneider, Head of Marketing and Public Relations

Berliner Str. 74–76  
D-63065 Offenbach

Dorsch Holding GmbH – DC Abu Dhabi

**Project:**

Jebel Hafeet Glacier Development Al Ain. Emiratis Housing Development (EHD)

**Contact:**

Michael Kadow, General Manager

Salam Street  
P.O. Box 26417  
Abu Dhabi  
U.A.E.  
Tel: +971 26 72-1923  
Fax: +971 26 72-0809  
E-mail: info@dorsch.ae

Dorsch International Consultants GmbH

**Project:**

Medina Airport

**Contact:**

Johannes Diplich

Hansastr. 20  
D-80686 Munich  
Tel: +49 89 5797-611  
Fax: +49 89 5797-811

Dorsch Gruppe with its 1,800 employees is the largest independent planning and consulting company in Germany, working in more than 140 countries. Dorsch Gruppe was founded in 1951 and offers the entire performance spectrum in the fields of project development, structural engineering, industrial construction, urban planning, water, transport and environment.



Kuwait Environment Public Authority

**Project:**

Environmental Monitoring Information System of Kuwait (eMISK)

**Contact:**

Mr. Mohammad Al-Ahmad, Director of Environmental Inspection, Monitoring and Emergencies Department

P.O. Box 24395  
13104 Safat  
State of Kuwait  
Tel: +965 24839972  
Fax: +965 24820593  
E-mail: alahmad@emisk.org  
www.epa.org.kw, www.emisk.org

Kuwait EPA is the government body responsible for the protection and sustainability of the environment in Kuwait. Its major mandate is to set the policy and strategies for environmental protection in Kuwait and to ensure and monitor the compliance with such policies.



GISCON Solutions

**Project:**

Environmental Monitoring Information System of Kuwait (eMISK)

**Contact:**

Ahmed Talaat, Managing Director

Danziger Str. 31a  
D-59174 Kamen  
Tel: +49 2307 97079-0  
Fax: +49 2307 97079-1  
E-mail: ahmed.talaat@giscon.de  
www.giscon.de

GISCON is a GIS consulting and services firm with the focus on consultation and technical support to users of Geographic Information Systems (GIS). Focus areas are GIS, consulting, technical support, and training. GISCON offers all services related to introduction, utilization and application of GIS.



Ferrostaal AG

**Project:**

Recycling: Sustainable Pay-off

**Contact:**

Dr. Thomas Kaup

Hohenzollernstr. 24  
D-45128 Essen  
Tel: +49 201 818-2162  
Fax: +49 201 818-3970

E-mail thomas.kaup@ferrostaal.com

Ferrostaal is a global provider of industrial services in plant construction and engineering. As a technology-independent system integrator, the company offers development and management of projects, financial planning and construction services for turnkey industrial plants. In addition, Ferrostaal assembles complex modules for the automotive industry, and trades with machines and installations.



giz International Services

**Project:**

Energy-Efficient Housing in Syria

**Contact:**

Florentine Visser

MED-ENEC II Project Office  
7 Tag El-Din El-Soubky Street  
11631 Heliopolis, Cairo  
Tel: +20 (0)2 2418 1578/9 (Ext. 108)  
E-mail: florentine.visser@giz.de  
www.med-enec.eu

'Energy Efficiency in the Construction Sector in the Mediterranean' (MED-ENEC) promotes practical and feasible energy-efficiency measures and use of renewable energy in the construction sector. The project is funded by the EU and includes policy development, awareness and knowledge development on energy-efficient design of buildings, new construction techniques and installations.



Alfred Kärcher GmbH & Co. KG

**Project:**

Restorative Cleaning of the Colossi of Memnon

**Contact:**

Frank Schad, Head of Marketing/Public Relations and Environmental Management

Alfred-Kärcher-Str. 28–40  
D-71364 Winnenden  
Tel: +49 7195 14-2684  
Fax: +49 7195 14-2193  
www.kaercher.com

Kärcher EZE – Quality Cleaning Equipment  
P.O. Box 17416  
Dubai, U.A.E.  
Tel: +971 4 8861177  
Fax: +971 4 8861575  
www.kaercher.ae

Alfred Kärcher GmbH & Co. KG, headquartered in Winnenden near Stuttgart, Germany, is the world's largest manufacturer of cleaning equipment. The family-owned company has more than 7,500 employees in 49 countries. Since 1998, its subsidiary in Dubai has been the direct contact partner for customers in the Arab world. It is responsible for product sales and for product, service and user training.



Ingenieursozietät Professor Dr.-Ing. Katzenbach GmbH

**Project:**

Enhanced Design and Construction Technologies for a Sustainable Infrastructure and the Foundation of High-Rise Buildings

**Contact:**

Prof. Dr.-Ing. Rolf Katzenbach, Managing Director

Ingenieursozietät  
Professor Katzenbach GmbH  
Pfaffenwiese 14a  
D-65931 Frankfurt am Main  
Tel: +49 69 9362230  
Fax: +49 69 361049  
E-mail: sekretariat@katzenbach-ingenieure.de

The Ingenieursozietät Professor Katzenbach GmbH is an internationally acting consulting firm specialised in the field of geotechnical and geothermal engineering. It is acting as a highly qualified geotechnical expert for the cost-optimized foundation of high-rise buildings, deep excavations, tunnels, high-speed railway lines, airports, harbour engineering, environmental geotechnics and geothermal energy.



KfW Entwicklungsbank

**Project:**

Building Learning-Friendly Schools in the Palestinian Territories

**Contact:**

Frank Determann

Palmgartenstr. 5–9  
D-60325 Frankfurt am Main  
frank.determann@kfw.de

KfW Entwicklungsbank carries out Germany's Financial Cooperation (FC) on behalf of the Federal Government. In this way, it contributes not only to reducing poverty but also to shaping globalisation fairly as well as to protecting the environment and thus ensuring peace. The goals of Financial Cooperation are ultimately to permanently improve the living conditions of the world's poorest people.



Kling Consult Planungs- und Ingenieurgesellschaft für Bauwesen mbH

**Project:**

King Road Tower Jeddah

**Contact:**

Kai Saloustros

Burgauer Str. 30  
D-86381 Krumbach  
Tel: +49 8282 994-228  
Fax: +49 8282 994-110  
E-mail: kai.saloustros@klingconsult.de

Kling Consult GmbH, located in Europe and the Middle East, is an independent professional design consultancy company founded in Germany 1954. Our fields of expertise include architecture, town planning, urban designs, traffic engineering, transportation planning, project management, economic, infrastructure design, planning, civil engineering, technical assistance, training, and supervision of construction.





Lahmeyer International GmbH

**Project:**

Wind Energy in Morocco – 50 MW at Haoouma Site  
Utility Scale Solar Electricity Generation from CSP and PV in Tunisia – a Comprehensive Pre-Feasibility Study

**Contact:**

Dr. Andreas Wiese (Energy Division)  
Bernd Metzger (Hydropower and Water Resources Division)  
Michael Witt (Transportation Infrastructure)

Friedberger Str. 173  
D-61118 Bad Vilbel  
Tel: +49 6101 55-0  
Fax: +49 6101 55-2222  
E-mail: info@lahmeyer.de  
www.lahmeyer.de

Lahmeyer International, as independent consulting engineers, renders a wide range of planning, management and consultancy services, primarily for complex infrastructure projects in energy, hydropower and water resources as well as transportation infrastructure. More than 40 years of successful development of all sizes and types of projects worldwide are the basis of our expertise and capability.



Lufthansa Consulting GmbH

**Project:**

Aviation Consulting in the Hashemite Kingdom of Jordan

**Contact:**

Marlene Hollwurtel, Manager Public Relations

Von-Gablenz-Str. 2–6  
D-50679 Cologne  
Tel: +49 221 826-8101  
Fax: +49 221 826-8263  
E-mail: marlene.hollwurtel@lhconsulting.com  
www.lhconsulting.com

Lufthansa Consulting is an aviation and management consulting firm and provides services and solutions to the air transport industry worldwide. Lufthansa Consulting is offering comprehensive expertise to aviation-specific client groups: airlines, airports and aviation authorities, governments, investors, financial institutions, manufacturers and service related entities.



OBERMEYER Planen + Beraten GmbH

**Project:**

New Algiers Central Station Hamma, Algeria

**Contact:**

Dipl.-Ing. Architect Burkhard Junker

Hansastr. 40  
D-80686 Munich  
Tel: +49 89 5799-0  
Fax: +49 89 5799-910  
info@opb.de  
www.opb.de

OBERMEYER Corporate Group operates throughout the world and offers qualified specialist planning and integrated overall planning with interdisciplinary know-how. Through its corporate divisions Buildings, Transport and Environment it renders planning and advisory services in almost every sphere of construction engineering. Project management and construction supervision complement this scope of services.



p2m berlin GmbH

**Project:**

National Master Plan for Sanitary Engineering in the Kingdom of Bahrain

**Contact:**

Dr. Hartmut Wesenfeld

p2m berlin GmbH  
Fasanenstr. 7–8  
D-10623 Berlin  
Tel: +49 30 74735-0  
Fax: +49 30 74735-105  
E-mail: info@p2mberlin.de  
www.p2mberlin.de

p2m berlin GmbH is the consulting engineering company of Berlinwasser which offers services in water supply and sanitation, covering all project stages from feasibility studies over design to construction supervision. We apply the latest know-how on all aspects of water supply and wastewater disposal and have completed many large-scale projects, both in Germany and abroad, especially in the Middle East.



PASCHAL-Werk G. Maier GmbH

**Project:**

The Billion-Euro Project in Oman. Circular Girder and Custom Formwork for an Ore Processing Plant

**Contact:**

Dipl.-Geol. Frank G. Gerigk, Press and Public Relations

Kreuzbühlstr. 5  
D-77790 Steinach  
Tel: +49 7832 71-286  
Fax: +49 7832 71-209  
E-mail: frank.gerigk@paschal.de  
www.paschal.de

The PASCHAL Group is an international specialist for concrete formwork, shoring systems and formwork design software. Present in more than 60 countries and based on its 46 years of experience, the group provides comprehensive services for the construction of concrete: from the development and production of high-performance formwork and shoring systems to global distribution through to reliable service.



PTV Planung Transport Verkehr AG

**Project:**

Transport Master Plan for Qatar

**Contact:**

Dr. Uwe Reiter, Director International Consulting

PTV Planung Transport Verkehr AG  
Leipziger Platz 14  
D-10117 Berlin  
Tel: +49 30 89718710  
Cell: +49 170 4590004  
Fax: +49 30 89718724  
E-mail: uwe.reiter@ptv.de

The PTV Group with over 700 employees worldwide provides software and consulting in Transport & Logistics, e.g. software for transport planning PTV Vision (VISUM, VISSIM). PTV provides transport consulting ranging from national transport plans to local traffic impact studies, e.g. the National Transport Master Plan for Qatar, including road and rail network and the national transport model.



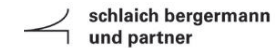
Qatar Airways plc.

**Project:**

Qatar Airways – World's Five-Star Airline

Zweigniederlassung Frankfurt  
Schillerstr. 20  
D-60313 Frankfurt  
Tel: +49 180 5 728271 (€0,12/min from land lines; max. €0,42/min from mobiles)

Qatar Airways is the national airline of the State of Qatar. From its Doha-hub, the airline has developed a global network with over 100 destinations across Europe, Asia, the Middle East, Africa, Asia Pacific, North and South America. The award-winning carrier has one of the industry's youngest fleets with an average aircraft age of just under four years old.



schlaich bergemann und partner-sbp gmbh

**Project:**

Envelope of the Yas Hotel in Abu Dhabi

**Contact:**

Knut Göppert

Hohenzollernstr. 1  
D-70178 Stuttgart  
Tel: +49 711 648710  
E-mail: stuttgart@sbp.de  
www.sbp.de

schlaich bergemann und partner are independent consulting civil and structural engineers. We strive to design sophisticated engineering structures ranging from wide-span light-weight roofs, a diversity of bridges and slender towers to innovative solar energy power plants. Our ambitions are efficiency, beauty and ecology.



Sellhorn Ingenieurgesellschaft mbH

**Project:**

Port of Beirut Development: Container Terminals

**Contact:**

Dipl.-Ing. Norbert Peetz

Teilfeld 5  
D-20459 Hamburg  
Tel: +49 40 361201-0  
www.sellhorn-hamburg.de

Sellhorn Ingenieurgesellschaft mbH is an engineering consultancy practice specialised in design and supervision for sea ports, harbours, and marine works. Established in 1963, Sellhorn's services comprise project definition and feasibility studies, engineering design, approval procedures, detailed design, preparation of tender documents, and construction supervision.



Siemens AG

**Project:**

State-of-the-Art Signalling and Telecommunications Technology for a Railway Line in Saudi Arabia

**Contact:**

Hartmut Gückel

Siemens AG  
Industry Sector  
Mobility Division  
Rail Automation  
IMO RA ML 1  
Ackerstr. 22  
D-38126 Braunschweig

The Mobility Division (Berlin, Germany) within the Industry Sector of Siemens AG is the leading global provider of transport and logistic solutions. With its 'Complete mobility' approach, the Division is focused on networking the various modes of transportation in order to ensure the efficient transport of people and goods. [www.siemens.com/mobility](http://www.siemens.com/mobility)



Solar Millennium AG

**Project:**  
Solar Energy: The Future Has Begun. In Kuraymat, Egypt's First Solar Energy Power Plant Is Working

**Contact:**  
Sven Moormann, Leiter Unternehmenskommunikation

Nägelsbachstr. 33  
D-91052 Erlangen  
Tel: +49 9131 9409-0  
Fax: +49 9131 9409-111  
E-mail: [info@SolarMillennium.de](mailto:info@SolarMillennium.de)  
[www.SolarMillennium.de](http://www.SolarMillennium.de)

Solar Millennium AG, Erlangen, is an international company in the renewable energy sector, focusing on solar-thermal power plants and specialised in Parabolic Trough power plants. Together with its subsidiaries and associates, the company is globally leading in this field. The company's services comprise: project development, financing to the technology, turnkey construction and operation of power plants.



TDO – Tourism Development Organisation

**Project:**  
Oases Tourism Development in Libya  
Tourism Development Mukalla, Yemen

**Contact:**  
Hannes Schied

Villa No. 4 – Muroor Road  
P.O. Box 130 783  
Abu Dhabi, U.A.E.  
Tel: +971 2 642-1669  
Fax: +971 2 642-4877  
E-mail: [info@tourism-development.org](mailto:info@tourism-development.org)  
[www.tourism-development.org](http://www.tourism-development.org)

TDO – Tourism Development Organisation is an independent consulting company focusing on three major lines of business: strategic destination planning, project development for hotels and related infrastructure as well as marketing and positioning of cities, regions and countries as tourism destinations. TDO is a member of Obermeyer Corporate Group.



TECPLAN ENGINEERING & SERVICES GmbH

**Project:**  
Rebuilding Iraq

**Contact:**  
Hans-Georg Friedrich  
Gerhard Paul

P.O. Box 21 70, D-63243 Neu-Isenburg  
Friedhofstr. 72, D-63263 Neu-Isenburg  
Tel: +49 (0)6102 38087  
Fax: +49 (0)6102 329338  
E-mail: [info@tecplan-gmbh.de](mailto:info@tecplan-gmbh.de)  
[www.tecplan-gmbh.de](http://www.tecplan-gmbh.de)

TECPLAN Engineering and Services GmbH specialises in consulting, planning and re-construction of industrial plants, supplying equipment, machined parts, spare parts and components especially to building materials plants as well as to fertilizer and petrochemical plants, steel mills and aluminium factories.



Wacker Chemicals Middle East FZE

**Project:**  
Wacker Academy Dubai

**Contact:**  
Aya Elamine, Communications & Events Manager

Wacker Chemicals Middle East FZE  
Dubai Silicon Oasis  
P.O. Box 341071  
Dubai, U.A.E.  
Tel: +971 4 7099944  
Fax: +971 4 7099911  
E-mail: [aya.elamine@wacker.com](mailto:aya.elamine@wacker.com)  
[www.wacker.com](http://www.wacker.com)

WACKER is a globally active chemical company headquartered in Munich, Germany, and has production sites and more than 100 sales offices worldwide. The company specialises in fields such as silicone and polymer chemistry, specialty and fine chemistry, polysilicon production and semiconductor technologies.



WTM ENGINEERS International GmbH

**Project:**  
New Grain and Flour Silo Complex in Kuwait

**Contact:**  
Friedrich Hilgenstock

Ballindamm 17  
D-20095 Hamburg  
Tel: +49 40 35009-706  
Fax: +49 40 35009-100  
E-mail: [f.hilgenstock@wtm-international.de](mailto:f.hilgenstock@wtm-international.de)

WTM ENGINEERS International GmbH is a company of consulting engineers offering comprehensive civil and structural engineering services. As part of the WTM group, founded in 1936 and comprising three offices in Germany, they are in charge of the group's international projects and specialise on issues of country-specific particulars and requirements in all stages of planning and construction.



Zaha Hadid Architects

**Project:**  
pheno Science Center Wolfsburg, Germany  
BMW Central Building, Plant Leipzig

**Contact:**  
Press Dept

10 Bowling Green Lane  
London EC1R 0BQ, UK

Architecture and design

# Imprint

## Editor

Ghorfa  
Arab-German Chamber of Commerce and Industry e.V.

Garnisonkirchplatz 1  
D-10178 Berlin  
Tel: +49 30 278 907-0  
Fax: +49 30 278 907-49  
E-mail: ghorfa@ghorfa.de  
www.ghorfa.de

Dr. Thomas Bach, President  
Abdulaziz Al-Mikhlafl, Secretary General  
Olaf Hoffmann, Chairman of the Working Group  
'Infrastructure, Construction and Transport'

## Coordination

Rafaela Rahmig, Ghorfa Arab-German Chamber of  
Commerce and Industry  
Kerstin Schneider, Dorsch Holding GmbH

## Editorial Office

Tanja Reindel  
Lektorat & Redaktion  
Nordendstr. 19  
D-60318 Frankfurt am Main  
Tel: +49 69 449140  
Cell: +49 173 3413118  
E-mail: tanja.reindel@t-online.de

## Photos

Cover picture: Werner Huthmacher – Photography  
Oranienstr. 19 a  
D-10999 Berlin  
Tel: +49 30 61403-967  
Fax: +49 30 61403-968  
E-mail: huthmacher@werner-huthmacher.de  
Other pictures: Kindly provided by the contributing  
companies, if not otherwise stated

## Layout and Typesetting

Carmen Städler  
PRINT64 GmbH  
Gutenbergring 75  
D-22848 Norderstedt  
Tel: +49 40 5288500-65  
Fax: +49 40 5288500-1  
www.print64.de

## Print

DCM  
Druck Center Meckenheim GmbH  
Werner-von-Siemens-Str. 13  
D-53340 Meckenheim  
Tel: +49 2225 8893-550  
Fax: +49 2225 8893-558  
E-mail: dcm@druckcenter.de

ISBN 978-3-00-034544-9

© May 2011