



Healthcare Guide

Partnerships and Perspectives of
Arab-German Cooperation

Healthcare Guide

Partnerships and Perspectives of
Arab-German Cooperation



Premium Safety

It's in your hands

B. Braun is dedicated to helping you achieve excellence in safety through our people, products, and programs. We are committed to delivering innovative safety products and programs with unmatched quality, superior technology, and cost-effective solutions, while maintaining environmental responsibility.

B. Braun is a full line IV therapy and healthcare products supplier. For almost 170 years, our tradition of expertise and progress has set a clear example of excellence in the global marketplace. We believe that our total commitment to achieve excellence in safety is essential for your success.

B | BRAUN
SHARING EXPERTISE

Table of Contents

Preface

5 Dr. Thomas Bach | *President*, Abdulaziz Al-Mikhlafl | *Secretary General*

6 Planning, Building and Managing Healthcare Facilities

8 Obermeyer Corporate Group | The Oasis Heart of Al Ain

12 Vivantes International | Modernisation Efforts in the Arab World

16 GIZ International Services | Hospital Rehabilitation and Reorganisation Programme in Morocco

20 Knauf Gips | Knauf Safeboard – Radiation Protection without Lead

24 WSP Deutschland | A Landmark Project in Hospital Construction

28 Education and Staff Training

30 Charité Universitätsmedizin Berlin | Medical Specialist Training at the Charité University Hospital Berlin

34 almeda | Health Coaching in Abu Dhabi

38 Caritas-Krankenhaus St. Josef Regensburg | Training Programme for Arab Residents in Regensburg

40 Erbe MEA | German Medical Technology – a Leader in the Middle East

44 Medical IT and Communication Solutions

46 Pentax Europe | Training and Education with Utility Films

50 CompuGroup Medical | Towards an Electronic Paperless and Filmless Hospital: King Fahad Medical City

54 Medical Tourism

56 German National Tourist Board | Germany: A Top Health Destination for GCC Travellers

58 Bonn-Rhein-Sieg University of Applied Sciences | Arab Patients in German Hospitals

60 Bavaria | A better State of health

64 Mandarin Oriental Hotel Group | Mandarin Oriental, Munich

68 Ministry of Finance and Economics | The Healthcare Sector in Baden-Württemberg, Germany

70 Baden-Baden Health, Visitors & Convention Office | Baden-Baden –

The World-Renowned Spa Resort in the Foothills of the Black Forest in Southern Germany

72 Vivantes Netzwerk für Gesundheit | Provision of Comprehensive Healthcare Services

76 almeda | Caring for Libyan War Wounded in Germany and Austria

80 delta-med international | First Class Medical Treatment and Care for Arab Patients

84 Special Topics

85 Center for Radiosurgery and Precision Radiation | Fly Away from Cancer

88 Zeppelin Mobile Systeme | Mobile Health Services

90 Ottobock HealthCare | The Genium™ Bionic Prosthetic System

94 Ghorfa Arab-German Chamber of Commerce and Industry

96 List of Contributors

Preface

It is our pleasure and honour to introduce you to the highlights of Arab-German healthcare projects in our first “Healthcare Guide”. This publication adds a further aspect to the Ghorfa yearbooks and broadens the promotion of Arab-German business relations.

The healthcare sector is one of the main sectors of Arab-German business relations. Arab countries invest massively in their healthcare systems and German companies can be of great support and service in realising these plans. The growing demand in and attention of the healthcare industry in Arab-German relations have become obvious during numerous business delegation visits to the Arab countries and also in the preparations of our German-Arab Health Forum, which takes place for the fifth time in 2012.

Investments in the healthcare sector also affect other business areas in a positive way, such as construction through planning and building hospitals, education through training of medical staff, the IT sector through software solutions in hospitals as well as the tourism sector. Therefore, healthcare integrates a lot of disciplines and branches that are important for Arab-German business relations. Furthermore, healthcare serves as a catalyst for the well-being of people. The projects that we present in this edition are therefore proofs of true Arab-German cooperation and understanding.

We owe thanks to our member companies for their input during the preparation of this publication. Their efforts and projects are of mutual benefit for Arabic countries as well as Germany. In particular, this does apply for those companies who are active in our working group “Healthcare”. This book is one of the achievements of this group, which consists of member companies of our chamber.

We sincerely thank Dr. Claus W. Biermann for his input and his contribution to this volume and his active role in the working group “Healthcare”. We also thank Ms Rafaela Aguilera Alvarez for her commitment and dedication for the publication and all matters of the working group. We would like to express our thanks to Ms Traudl Kupfer, Ms Birgit Tümmers, Mr Clemens Recker and Ms Anhar Al-Shamahi for their work and effort to realize this book project.

We hope to give you an insight in the Arab-German healthcare business and we wish you and your company the best of success in business endeavours between Germany and the Arab world.



Dr. Thomas Bach



Abdulaziz Al-Mikhlafi

Thomas Bach | *President* Abdulaziz Al-Mikhlafi | *Secretary General*

Planning,
Building,
and
Managing
Healthcare
Facilities



This chapter will present some of the most successful Arab-German hospital projects. Whether you are designing a new healthcare facility or working to build and/or upgrade your existing premises, you will need to consider various factors affecting construction from very early in the development stage to ensure the successful completion of your project, especially with regard to differences between the Arab world and Germany. The project covers many disciplines involved in the healthcare construction and design process that are grappling with the challenges of taking new facilities from launch to operation.



Birdview

The Oasis Heart of Al Ain

Obermeyer Corporate Group

Since 1979 the Al Ain Hospital has been providing high quality medical services for the Al Ain community. Now a new, exclusive 713-bed-hospital has been designed by Obermeyer Corporate Group, which combines the friendliness of an oasis village with state-of-the-art medical services and the comfort of hotel amenities. The design of the facility reflects the client's ambition to become a leading healthcare provider in the region and beyond.

concept.idea

The city of Al Ain is characterised by several oases with medium-scale building structures. The design concept was to create a hospital that connected with both the town's culture and its urban form of scattered development. The 'Garden City' utopia is a strong element of Middle Eastern culture. Therefore, Obermeyer Corporate Group designed the hospital as a natural healing oasis while being mindful of the need for privacy and sophistication.

The entire project consists of seven buildings, which are spread over the campus in two groups – the patient-related buildings around the main hospital and the service facilities at the rear of the plot to avoid any disturbance to patients and visitors.

The aim is to create a healing and healthy environmental surrounding for convalescing patients by promoting their well-being. The urban concept follows the idea of well proportioned, human scale houses placed around large open and flowing



Outdoor Oasis

spaces with vast indoor and outdoor panoramic gardens cooled by dispersed water pools and naturally lit by daylight that filters through all areas of the building.

Optimised for staff, patient and visitor flows, the floor plan design creates a highly effective and functional layout where circulation and transport routes guarantee that the patients receive first-class service in an efficient and timely manner.

The design of Al Ain hospital not only considers the patients and the staff, but also the families and friends that want to share in the recovery of their loved ones. Visitors also have the opportunity to enjoy some of the facilities that the hospital has to offer. Family rooms are designed to create a comfortable and soothing atmosphere while waiting. The hospital provides five star restaurants with a focus on healthy food and visitors can enjoy freshly brewed coffee around the indoor green gardens. Located next to the central reception are resting areas and relaxation amenities, encouraging social interaction in a calm environment.

Ancillary support units are part of the overall master plan. The Utility and Logistic Centres, which have separate trade entrances, serve as an interface between external traffic and

internal transport systems. These service centres are connected with the main hospital complex via an underground supply tunnel system, reducing supply and maintenance traffic on the surface to almost zero. Together with the full underground parking, this keeps traffic out of sight for the patients, visitors and staff and enhances the tranquil atmosphere in and around the patient care areas. By covering the entire footprint of the main building, the underground parking provides short transport distances and direct vertical access for staff, visitors and patients alike.

A warm-coloured, local stone is applied to the facade of the departmental building. Aluminum panels treated with a milled ornament are used as window shutters for the patient rooms. The sliding elements act as sunscreen and create interesting light conditions and a pleasant atmosphere inside.

Interior design materials are selected in conformity with the highest sustainable standards of low emission products. A well-balanced lighting design and the abundant use of natural light engage all areas of the hospital to ensure that occupant wellness is maintained at the maximum level.



Atrium Hall, Main Entrance

To reduce water consumption and to create a characteristic scenery that stands in close relation to the natural conditions of Al Ain, the hospital is surrounded by an arid landscape. The inner area has a colourful and lush design. The picture that emerges is that of a fruitful oasis in the middle of the desert.

Environmentally friendly and energy-efficient design elements are used, e. g. photovoltaic panels on the roofs or high performance façade insulation, thus leading to a significantly reduced energy demand. The sophisticated low velocity air conditioning system of the garden hall only provides cooled air in the frequented area – reflecting the sustainable, holistic approach of the hospital concept.

The project was 'Highly Commended' for 'Best Hospital Design' at the Hospital Build Award 2010 and, in addition, it was one of six hospital projects out of 87 international entries to be selected for the Wan Award 2010.

medical.portfolio

The new Al Ain Hospital will be a 'Centre of Excellence' in traumatology, orthopedics, sports medicine and rehabilitation. Sophisticated facilities will be provided for emergency services and elective surgery. Other centres will include a specialised medical unit addressing all diabetic diseases as well as the first dedicated stroke unit in the UAE. The clinical portfolio is completed with the sheltered Mother and Child Family Medicine Centre with an advanced neonatal unit.

The hospital's brief envisioned that each day an average of 300 patients could be seen in the emergency section (including general practice referrals) and more than 200,000 outpatients per year in the Specialty Outpatient Clinics and the Family Medicine Centre. It was essential for the design team to cre-

ate a hospital layout with the focus on efficient functional routes and high quality services which would meet these requirements.

Rehabilitation is an integrated element of the hospital's service portfolio with a focus on early rehabilitation within an acute setting (ICU/IMC, wards) and a follow-up rehabilitation in a connected rehabilitation building offering 142 dedicated beds. The early start of rehab and the continuous care through one integrated team of physicians is deemed to improve the recovery and healing process. An integrated interdisciplinary and multi-professional approach consolidates a fast and sustainable recovery.

development.process

At the starting point of the design development process a variety of interdisciplinary workshops were conducted by Obermeyer Corporate Group, in joint venture with a healthcare economics consultant, to involve all stakeholders at as early a stage as possible. To define the future strategic positioning and service portfolio, the current capacity and in-patient contacts in terms of patient visits and referral patterns as well as current strengths and weaknesses were analysed.

From there certain demand drivers such as future population growth, morbidity and fertility trends as well as demand patterns in respect of insurance systems, political intentions, and decision criteria as well as the hospital's competitive environment were taken into consideration. This team-based fact-finding process led to assumptions regarding the future hospital's core competencies, capacity, composition, services and patient structures.

Apart from these client-user-consultant workshops single-user interviews were carried out to understand the structure, views and needs of the current hospital staff. Best practice visits to Europe aiming for the refinement of the medical portfolio were undertaken together with client and end-user representatives.

The above activities formed a strong basis for the joint venture to define the statement of requirements, from where the process of designing spatial relationships commenced.

innovation.design

The Al Ain Hospital has been designed using Building Information Modeling (BIM), which is a building design methodology that involves the creation and use of fully coordinated, consistent 3D models incorporating all construction disciplines. It permits all participants to create a consistent computable information data base that can be used during the entire life cycle

of a building – from the first sketches to the coordinated design, during the construction until the facility management. In addition, the model enables the performance of simulations such as wind tunnel tests or sunlight simulations to verify the design. Phasing strategies can be developed by adding the time as a fourth dimension to all parts. Furthermore, as a fifth dimension, the cost can be added to each element to enable cost control during the entire process.

Obermeyer Corporate Group was awarded the ‘BIM Experience Award’ at the ‘BIM Conference 2010’ for its efforts to apply and further develop this tool especially with the Al Ain Hospital project.

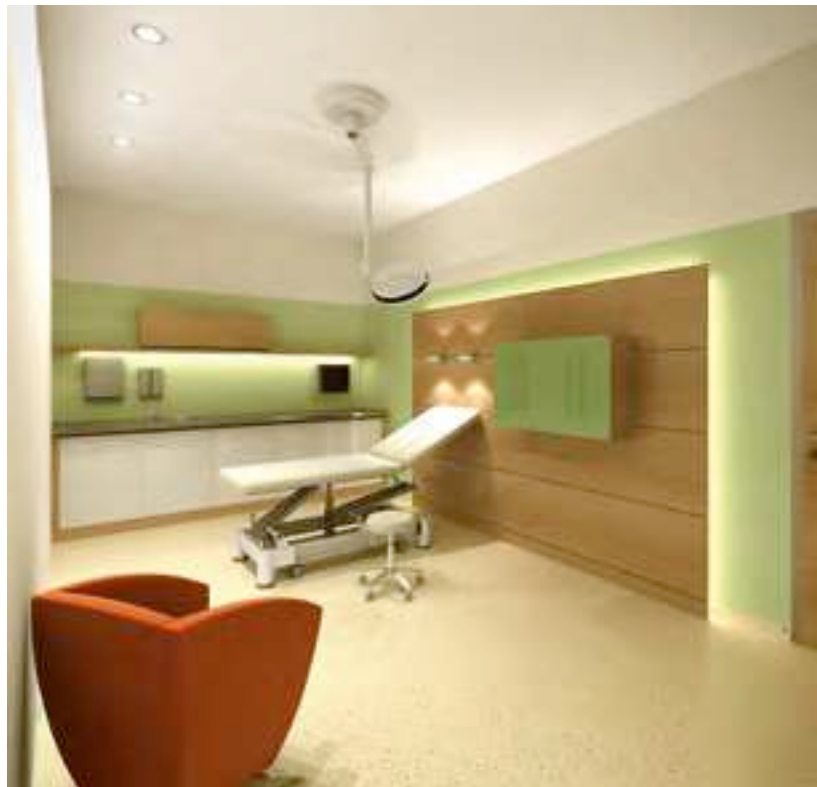
future expectations

The project started with initial thoughts about capacities and design in 2008. Meanwhile the enabling works have been started on site and the completion and change from the old facilities to the new building ensemble is expected in 2015.

The building arrangement provides scope for future growth and development. Since the functions are contained within blocks, future development can be staged or units can be added without disrupting the entire site. The distance between the logistic centre and the medical facilities creates a high degree of freedom for future medical developments and the supply tunnel is equipped with tie-up points to facilitate future underground service connections to the hospital’s supply and disposal area.

To enable the hospital building itself to react to future changes in demand, several built-in expansion areas adjacent to critical medical departments provide expansion space there. In addition, 30% of the bedrooms are designed in such a way as to be easily convertible from single to double bedrooms so as to expand the bed capacity to a maximum of 811 beds.

Future possible developments for the Al Ain Hospital complex are a geriatric centre and an enlarged psychiatric unit as well as a staff kindergarten. An additional hotel development could accommodate day-care patients as well as relatives or visitors.



Examination and Treatment Room



Patient Bedroom for Women



Sabine Steinert
International Healthcare Projects
Obermeyer Corporate Group