



Education Guide

Partnerships and Perspectives of
Arab-German Cooperation

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Education Guide 2015

Partnerships and Perspectives of
Arab-German Cooperation



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Foreword



Prof. Dr. Johanna Wanka

The people of the Arab world have been confronted with the most diverse political and societal changes in recent years. Education is of central importance for the sustainable development of the economy and society in Arab countries, too. In particular, education is decisive for employment opportunities for young people. By closely linking theory and practice, Germany's established Dual Training system provides young men and women with the qualifications needed to face the demands of everyday working life; these young people are often employed by their respective training companies after completing their training. Vocational education and training is therefore an excellent instrument for combatting youth unemployment.

The first edition of this Education Guide, which was published to accompany the 5th German-Arab Education and Vocational Training Forum, already met with great interest from many Arab and German companies and institutions with its overview of joint partnerships and prospects for German-Arab cooperation. I am delighted about this.

Promising schemes for cooperation have been introduced since the 2013 Education and Vocational Training Forum in Berlin and bridges have been built between Germany and the Arab countries. The joint commitment of the Ghorfa Arab-German Chamber of Commerce and Industry, the Didacta Association and iMOVE continues to play a key role in promoting international exchange in this area and strengthens the German-Arab cultural dialogue.

This issue of the Education Guide presents promising German-Arab projects in initial and continuing vocational education and training. These projects demonstrate the tremendous potential of the partnerships that have been established in this field. I sincerely hope that they will provide a basis for numerous further projects and new partnerships, which will in turn offer diverse educational opportunities for young people.

A handwritten signature in blue ink that reads "Johanna Wanka".

Prof. Dr. Johanna Wanka
Federal Minister of Education and Research

Preface

Education is one of the main pillars of Arab-German cooperation. The level of education and the investments in research and development have a significant and long-term impact on the performance of every national economy. With around € 80 billions annually, Germany spends large sums for research and development. Until 2020, the German government is targeting to invest 3% of its GDP in research and development and 10% in education and research.

Arab governments are also focusing on enhancing the quality of education to meet the demands of economy and offer sustainable job opportunities for the growing number of youth. Various Arab countries spend around 25% of their budgets on the improvement of their education systems. Strengthening competitiveness through education is essential for the region to create more jobs for the growing population.

Our chamber sees great potential for Arab-German partnerships in the education sector. The German vocational training system is an excellent model for enhancing employability combining both practical skills and theoretical know-how. Many successful bilateral projects have already been initiated, which we are delighted to present in the second issue of the Arab-German Education Guide — Partnerships and Perspectives of Arab-German Cooperation.

The Arab-German Chamber of Commerce and Industry has an efficient network, consisting of both institutional and entrepreneurial decision-makers from the Arab countries and from Germany. As the representative of all Arab Chambers of Commerce and Industry in Germany, our role is to support Arab-German business relations. Besides our publications, events and activities, we also initiated the working group “Education and Vocational Training” which offers a valuable platform to share information, and exchange experiences.

We thank our member companies that actively contribute to Arab-German business relations and would like to express our gratitude to Ms Rafaela Aguilera Alvarez, Ms Traudl Kupfer and Ms Birgit Tümmers for their effort to realize this book project.

We hope you enjoy reading and wish you many new and fascinating insights and inspirations for future projects.



Dr. Peter Ramsauer



Abdulaziz Al-Mikhlaflafi

Dr. Peter Ramsauer
President

Abdulaziz Al-Mikhlaflafi
Secretary General

Greeting



Prof. Dr. Wassilios E. Fthenakis

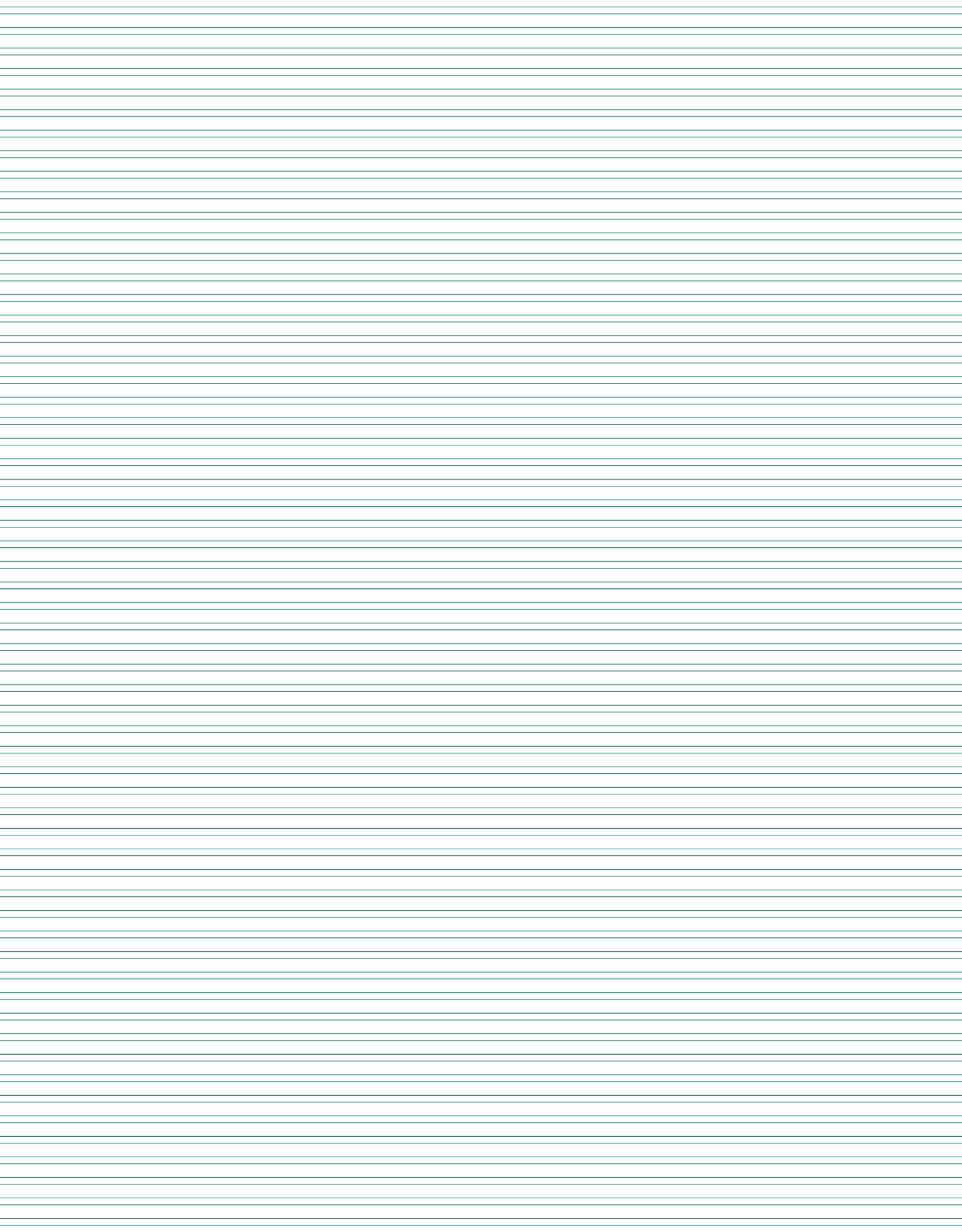
During the past few years, a change has been taking place within international education systems. While the education systems of the 20th century simply authorized the transfer of knowledge from one generation to the next, today, they also have to focus from the start on supporting childhood development and skills. Only in this way we can prepare our children for the modern world and guide them so that they are commensurate to the challenges of a globalized 21st century.

This development is especially relevant in the Arab world, where many countries are incorporating changes to the social landscape. The German education sector, under the umbrella of the Didacta Association, would like to extend its knowledge and experience to help facilitate changes successfully within this transition period. We are aware of our great responsibility, as it is the quality of education that ensures the lasting implementation of new educational concepts.

Together with its partners, the Didacta Association will do everything it can do to ensure that from the beginning, education at all stages of a child's development can be successful. We place great importance on our partnership with organizations such as Ghorfa, the Arab-German Chamber of Commerce and Industry, the Federal Ministry of Education and Research, and the Federal Institute for Vocational Education and Training (BIBB). We are delighted to be working side by side with such capable partners, and I am convinced that we will learn much from each other as we work toward our common goal of offering the best educational chances possible to every child and adult.

A handwritten signature in blue ink, appearing to read 'W. Fthenakis', written over a light blue rectangular background.

Prof. Dr. Wassilios E. Fthenakis
President, Didacta Association e. V.





Vocational and Higher Technical Education and Training



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Trailblazing TVET Reform: Saudi Arabia Drives Innovation

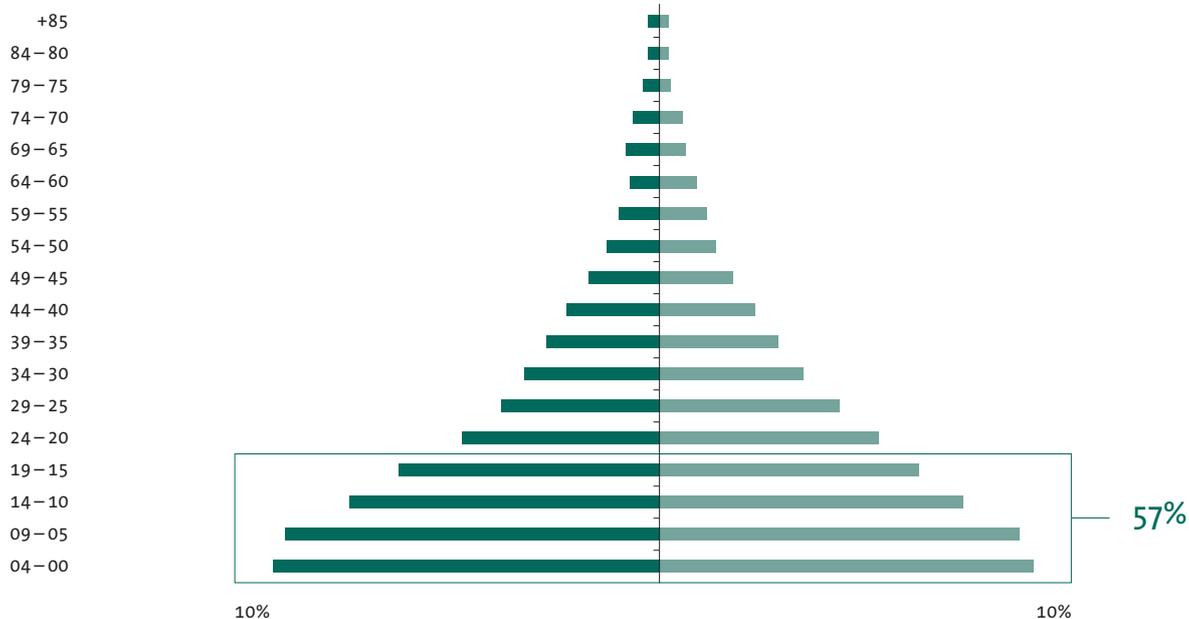
Colleges of Excellence

It is certainly no secret that Saudi Arabia, similar to many other emerging economies, is subject to a rapidly growing population. While many advanced economies according to labor market analyses are projected to suffer a severe shortage of labor market supply due to slow or even negative population growth (e. g. Germany), the theoretical labor market supply in emerging economies like Saudi Arabia is predicted to develop favorably for decades to come.

Even continued solid economic growth, fuelled by huge oil reserves, and the connected significant increase in labor market demand will in most economic projections still result in balanced supply-demand relation on the Saudi Arabian labor market in 2030. Boston Consulting Group, for instance, calculates for Saudi Arabia, depending on different scenarios for economic growth and related labor market demand, between -19% and +20% supply in 2030. In other words, Saudi Arabia will in all likelihood, even at a not-too-distant future when many developed economies are predicted to face severe labor market shortages, be able to supply itself with the needed labor force.

That being said, sufficient quantitative supply does by no means equal qualitative labor supply. At current, the Kingdom is confronted not only with a serious over-supply of labor (unemployment) but also grapples with a severe *misallocation* of labor. As it stands, the capacity of universities to absorb

graduates of any high school graduating year is at 94%, as compared to, for instance, 57% in the UK and 36% in Germany. Technical jobs are largely outsourced to foreign guest workers at the moment, only very few such jobs are being held by Saudi nationals. On the other hand, the government of Saudi Arabia engulfs on a course of action that foresees economic growth through industrialization as well as nationalization of vocational jobs. In order to achieve both goals, expat technical workers' participation in the labor market is gradually being reduced though the NITAQAT visa program, while at the same time the absorptive capacity of the higher education system is by legal mandate being curbed and re-allocated into the vocational training system, i. e. to a place where skilled labor is being "produced". By Royal Decree, the percentage of high school graduates that are being directed into applied education programs shall rise from currently 9% to 44% in 2023.



1 | Saudi Arabia's age pyramid: A "tsunami" of labor supply in the making

■ Female ■ Male

Quality is the key

Those measures take care of the quantitative dimension of Saudi Arabia's vocational labor market. Crucial for the future development of the Saudi economy is, however, the quality of the labor force.

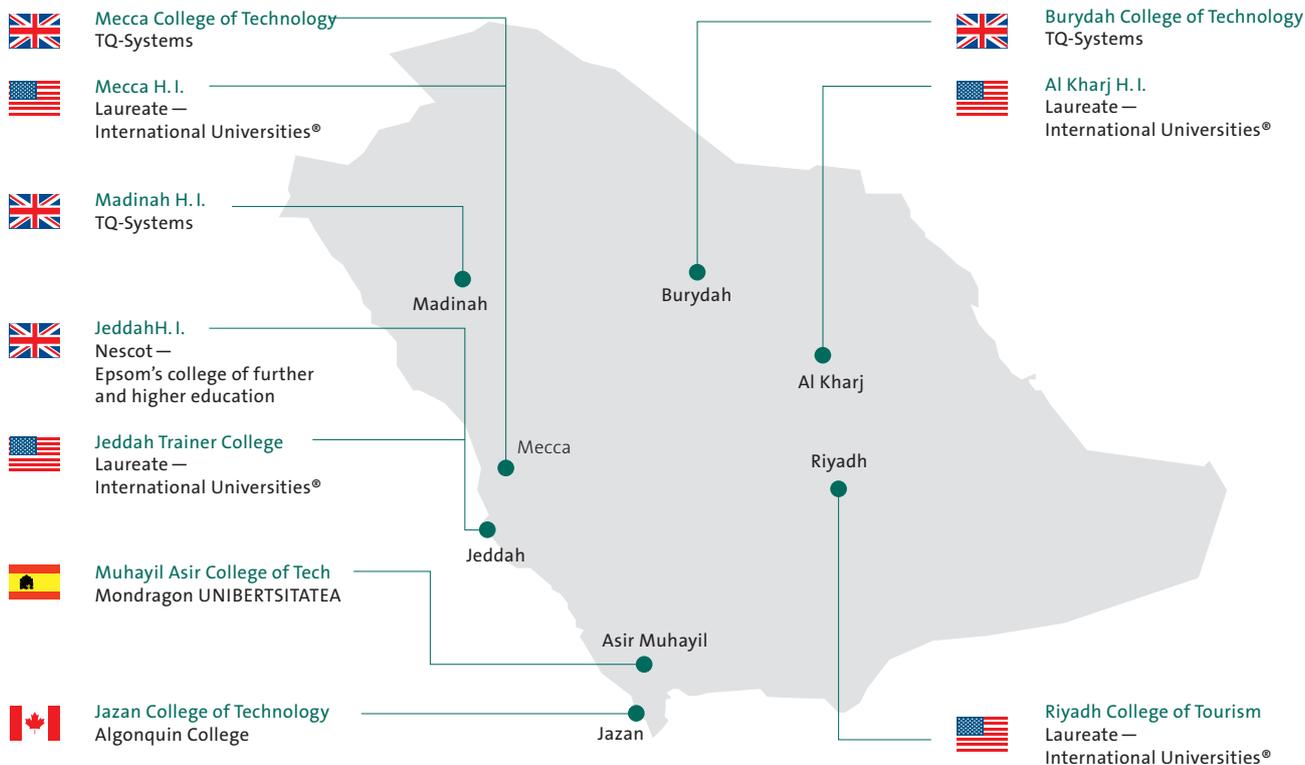
Ensuring high-quality jobs for Saudi nationals, therefore, has always been one of the most critical priorities of the Kingdom of Saudi Arabia and of The Custodian of the two Holy Mosques His Royal Highness King Abdullah Bin Abdulaziz Al Saud, and is likely to be of equally high importance to newly crowned King Salman. In order to create a high quality, or better: *excellent* native vocational labor force, the Kingdom of Saudi Arabia is now embarking on one of the largest TVET upgrades in the world. The cornerstones of this project are:

- 1 Rapidly expanding the capacity of the system from about 110,000 students today to approximately 250,000 students by 2020, supported by considerable infrastructure investments in state-of-the art new college buildings throughout the Kingdom.
- 2 Investing in all means required to upgrade the quality of the system and meet the highest international standards, which include:

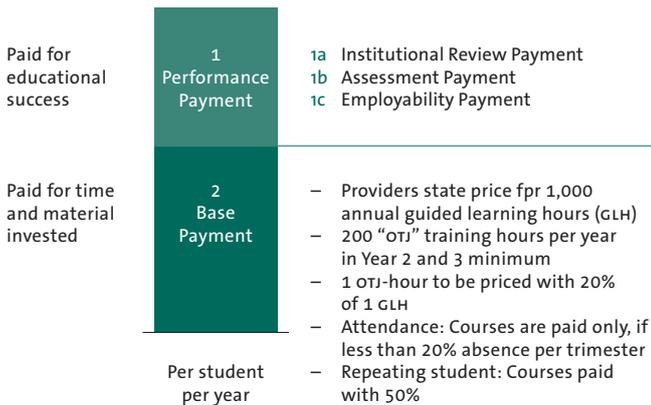
- a) Provisioning education through a Public Private Partnership (PPP) model, in which the Saudi government will oversee, finance and regulate training. Excellent private sector training providers will operate the training institutes, and Saudi employers will be closely involved in the process to guarantee that the skills of the graduates meet the needs of the labor market.
- b) Upgrading and improving the regulatory capacity of the National Center for Evaluation and Professional Accreditation (NCEPA) in line with international best practices.
- c) Strengthening the involvement of the private sector in National Occupational Skill Standards and contributing to on-the-job training.

In Saudi Arabia, TVET is under the responsibility of the TVTC, which currently still operates most of the colleges in the Kingdom. The Human Resources Development Fund (HRDF) plays a key role in financing education for employment of Saudi citizens. Instrumental to the organization of the newly arriving above-mentioned Private Public Partnership (PPP) undertaking is Colleges of Excellence (COE), a funding agency fully-owned by the Saudi government.

2 | Wave 1 colleges, starting in the fall of 2013



Per enrolled student CoE pays:



3 | Economics of CoE (current model)

Creative drive and ordering principle: PPP

Colleges of Excellence has been in operation for less than two years, and in record time since 2013, it has already processed two complete waves of tendering. Already in the fall of 2013, 10 new colleges initiated operation under the international management of five different educational providers from Europe and North America (for details see figure 2). During 2014, Colleges of Excellence experienced another large push forward with Wave 2, which resulted in the contracting and subsequent opening of an additional 28 vocational colleges. Other than in Wave 1, Wave 2 colleges were tendered in clusters, to allow for the utilization of synergies and easy transfer of experiences (see figure 3).

Excellence under market laws

As of March 2015, CoE is partnering a total of 38 vocational schools, which are by now in full operation. The PPP business model employed by CoE is based on a mixed approach between cost reimbursement and performance-based incentives. International Training Providers (ITPs), as we typically call them, follow a general system of rules and standards, which, however, leave much room for individual companies' creativity and transfer of specific experience from their home country operation. In their operational practice, providers are always guided by the commitment to achieve the highest possible degree of educational excellence. After receiving fully dedicated newly constructed campus infrastructure in the college of their awarded tender, providers take full responsibility under the overall guidance of CoE; they recruit faculty; they develop curricula based on "their" specializations' NOSS (National Occupa-

tional Skills Standards); they market their respective school in the local community and they recruit students; they assure delivery of high educational standards; they retain students; and they equip laboratories and workshops according to the specifications of their particular college. Providers are free—in fact, they are encouraged—to utilize their existing networks for the provision of services and needed equipment and to optimize their operational costs. The model certainly does not exclude, in fact, it specifically allows and encourages the generation of profits, although educational quality and excellence are and remain the guiding and higher-ranking principle. Cost-saving measures undertaken by our providers—welcome, encouraged and supported—must never be achieved to the detriment of educational excellence.

In practice, CoE hopes to liberate both providers' entrepreneurial drive and to erect a training system in strict adherence to internationally competitive standards of educational excellence. To achieve this goal, performance payment is mainly a function of outputs measurement. The following table (see figure 4) sheds light on the mechanics of the model.

... And there is more to come

The above described development marks only the beginning of a long journey, and additional measures are being prepared or have already started:

While we have begun the international operation of 38 NEW vocational schools, TVTC is still operating 54 state-run vocational schools. Those colleges shall benefit too from world class experience that we as CoE bring into the Kingdom, and a large-scale transformation process has been started to upgrade and to internationalize those TVTC schools. Unlike in CoEs of the new model the language of instruction of those TVTC colleges will remain Arabic. Yet, we have tendered out international coaching teams for the first 11 of those 54 colleges, with a maximum capacity of 2,500 to 3,000 students each. Those teams have started operating in March this year. Coaches are tasked to lead TVTC colleges into autonomy; to advice and to coach college leadership; to modernize and to upgrade administrative services; and—last but not least—to coach, modernize and upgrade teaching methods and skills.

As outlined above, the TVET transformation process involves creating enormous capacities. In this context, Colleges of Excellence is preparing for Waves 3 and 4 of international tenders for the operation of vocational schools in Saudi Arabia. Those tenders are likely to be issued later in 2015 and in 2016. Given requirements of the Saudi Arabian government, and in full congruence with the demands of sustainability, the emerging PPP system for vocational training also needs *Saudi teachers*.

Since 2014, the CoE system, therefore, has integrated the “German University College” (formerly Technical Trainers College), a specialized teacher training facility, which has been under German operation since 2009 and which is undergoing a process of adaptation to the requirements of the new Colleges of Excellence.

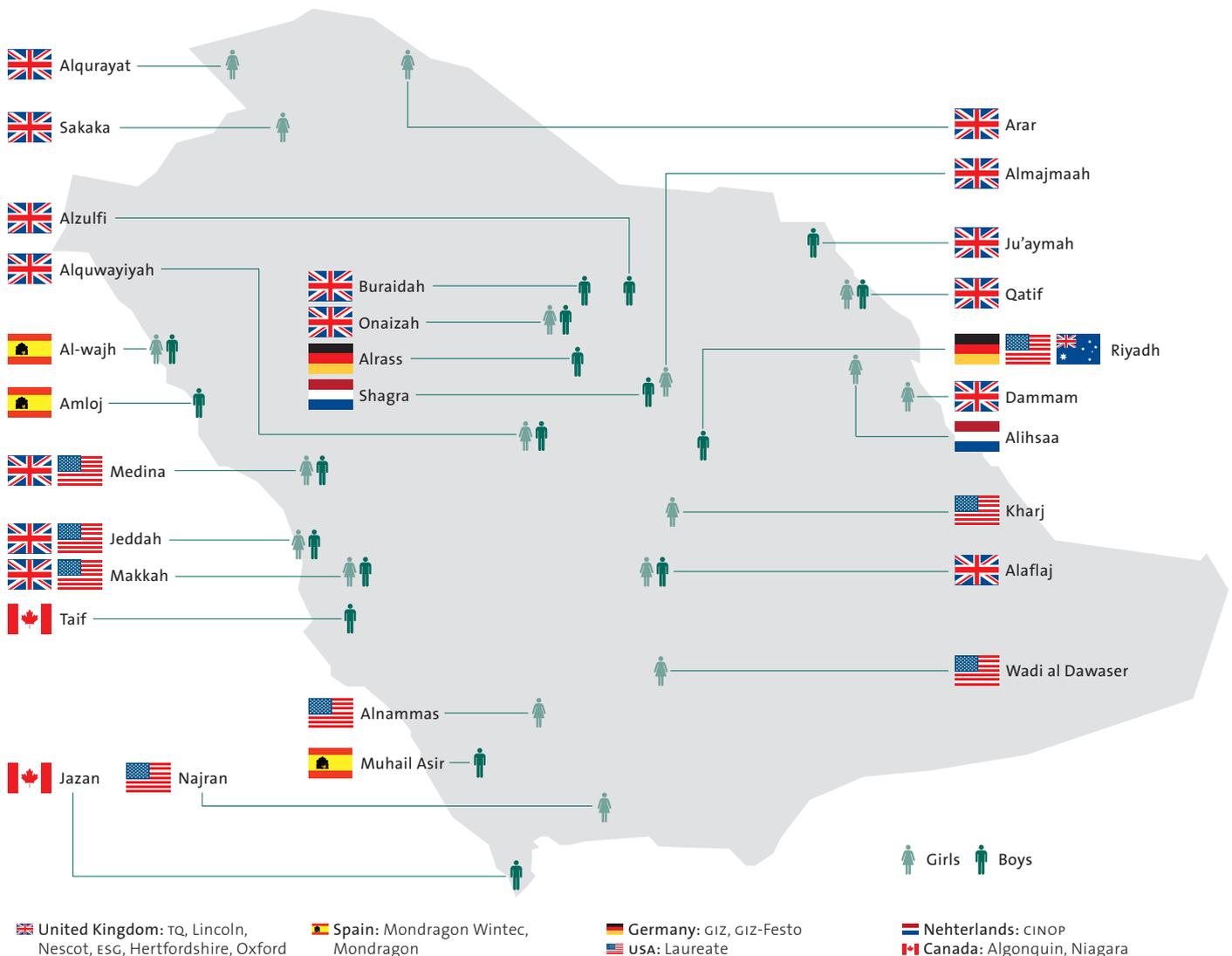
Many of our best students continue to express a strong desire to go beyond the “diploma” degree associated with a skilled technician. Our providers are therefore working together, with strong involvement of the German University College, to develop a specialized vocational bachelor’s degree, as an option for the very best of our graduates.

The Saudi Arabian vocational training arena is thus one of the most exciting environments in the field worldwide. There are risks, and there are enormous opportunities—opportunities for the Kingdom, for an emerging young generation of Saudi technicians, and even for the international providers themselves. A “universe” has been given birth that harbors and nourishes the

energies of entrepreneurship and competition, but also of cooperation and joint search for excellence. This universe is also a place for encounter and dialogue, for comparison and innovation, all under a shining star that leads towards the best possible vocational education. The CoE venture is unfolding in commitment to the future of young Saudi men and women. With 19 educational providers from 8 countries pursuing this goal, in this new TVET universe in the midst of the Kingdom of Saudi Arabia, world is at home!



Dr. Michael Klees
*Director, Research and Development
 Colleges of Excellence*



Ghorfa

Building Bridges between Germany and the Arab world

The Arab-German Education and Vocational Training Forum is with over 300 participants the most important Arab-German business platform for the education sector.

A constant flow of valuable information ensures that Ghorfa members are up-to-date on relevant economic and industrial development trends, growing markets, investment opportunities and legal issues.



Ghorfa Arab-German Chamber of Commerce and Industry

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 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 represents 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.



Building Bridges between Germany and the Arab World

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, Forum)
- 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 and legalisation services

Information

- Early information about projects and tenders
- Monthly issued Arabic and German newsletters
- Quarterly bilingual business magazine SOUQ
- Arab-German Business 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

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Numerous high-ranking speakers like f. e. Dr. Saleh Al-Amr, Vice Governor for Strategic Partnerships, Technical and Vocational Training Corporation (TVTC) from Saudi Arabia participated at the 5th Arab-German Education and Vocational Training Forum

Contributing Companies and Institutions



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tmw@a2s.com | www.a2s.com

Headquarters: Stockheim/Germany
Founded in: 1937

Sector:	Furniture
Business activities:	Manufacturing of furniture for educational establishments.
Products/Services:	Furniture for educational establishments, e.g. schools, vocational training, universities, colleges, all-purpose halls, boarding housing, dinning halls, libraries and offices.
Facts & figures:	Family-owned company one of the market leaders in the educational sector 75 years of experience 4 production plants € 70 millions turnover per year



Festo AG & Co. KG and Festo Didactic GmbH & Co. KG

Festo AG & Co. KG Automation

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1 | Festo AG & Co. KG headquarters in Berkheim, Germany

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Business sector Education: Didactic Learning systems, Training & Consulting
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Festo Didactic GmbH & Co. KG Technical Education

Festo Didactic is the world-leading equipment and solution provider for industrial education. The product and service portfolio offers solutions for rapid learning and retention in a broad spectrum of technologies, including a complete coverage of automation and meshes the technical learning content with training courses from the areas process optimisation, management and communication.

Learning Systems:

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Training and Consulting:

Experienced instructors and consultants provide standard and tailor-made training and consulting solutions on the basis of comprehensive analysis of needs within a company. Competence programmes consist of training courses and project work focusing on technology and productivity. They are specifically geared to the employee's role and the industry needs.



2 | Training situation on a fully automated learning factory

Year of foundation: 1925
Turn-over (Festo Group): 2.3 billion €
Employees (Festo Group): 16,700 globally
R & D investment: more than 7% of the annual turn-over

Companies: in 62 countries
Branch offices: over 250 branch offices
Representatives: authorised representatives in 176 countries
Festo customers: more than 300,000 in 176 countries



1 | Training System Renewable Energy

Lucas-Nülle training systems are in operation around the Arab countries, wherever they are, they represent the standard for quality, efficiency and technology. We cover a multitude of topics in different training levels. Our solutions are suitable for colleges, vocational schools, universities, chambers of trade, and the industry.

The synchronizing of theory and practical application, the safe and self-explanatory experiment set-ups combined with a positive learning experience that comes from doing experiments on one's own makes learning with our systems fast and more efficient than with any other competing products.

For more than 40 years, Lucas-Nülle has stood for the development, manufacturing and setting-up of high-quality, state-of-the-art training systems and education equipment for further and advanced technical, engineering and vocational education. In addition to course offerings, covering a wide range of basic theoretical material, project-oriented and didactic training receives special focus.

Lucas-Nülle provides complete training concepts and solutions for electrical/electronic engineering, automation technology, mechatronics, communications, drives, automotive and refrigeration technology. All training systems come together with comprehensive PC-based training courses, adapted to the local language, which run in the LabSoft environment.

Lucas-Nülle's core services include consultation and planning for the construction and installation of training centers. Additional value is added for their customers through specialized training seminars and intensive after sales service. With its long-term international expertise, high customer satisfaction and most innovative products, Lucas-Nülle stands out as global market leader.

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Head of Company: Rolf Lucas-Nülle
Year of foundation: 1973
Employees: 120
Production Facilities: Kerpen, Germany
R & D investment: more than 12% of the annual turn-over

Products:
Training systems for professional and technical education
Facility planning, laboratory layout
Curriculum planning
Installation, training and after sales service

Training Software and Simulation for Better Training Results



1 | e-learning and simulation "Water Tank Container"



2 | Remote Controlled Vehicle Simulation (RCVS)

The training and simulation experts for learning at the computer szenaris GmbH creates learning programs and simulations for learning at the computer. From computer or web based training programs (CBT/WBT) to virtual reality simulations: We are your partner for e-learning in training and further education with an unbeatable price-performance ratio.

Training Software — supports learning processes effectively e-learning provides ideal options: images, text, sound, two or three dimensional animations, and videos are all arranged to make the learning contents a multimedia-based experience. To meet this challenge, our team is multi-talented; educators, graphic designers, engineers, and software developers work side by side to produce a mature product. No matter if you are looking for Computer Based Training (CBT) on a disk, Web Based Training (WBT) via networks, or mobile learning applications for tablets and smart phones: We offer the perfect solution, tailored to your needs. Our products range from multi-media learning materials to assist your trainers and lecturers through learning programs right up to complete Learning Management Systems (LMS).

Simulation — train in a safe environment

Learning with virtual reality simulations means taking the user into a virtual test environment. These can be rooms, landscapes or underwater worlds where machinery is operated, vehicles are controlled or superstructures are built. Recovery or destruction of hazardous materials with remote controlled robotic vehicles, or so-called manipulators, is an example of Virtual Reality Training developed by us. The user can learn and practice the handling of such virtual manipulators while avoiding the danger of causing costly damage. To achieve a simulated scenario like this, a realistic 3D model of the vehicle is produced first. Then realistic environmental conditions can be developed and physical properties can be produced for the vehicle. And: To adapt the learning and practicing even more to realistic conditions, the operators control the vehicle in the virtual world with the original, real-world operating console connected to the pc.

Services

szenaris GmbH creates training and simulation solutions for education and training. To enable our customers to get a maximum added value out of our products, our portfolio comprises the following services: consulting, visualization, training software, simulation, team training, and research. Of course, we offer maintenance and support for all products that we create for you.

szenaris GmbH
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info@szenaris.com | www.szenaris.com
Phone: +49 421 59647-0 | Fax +49 421 59647-77

Klaus Bock-Müller | *Managing Director*
Dr. Uwe Katzky | *Managing Director*

Year of foundation: 2009
Employees: 28

WALDNER Laboreinrichtungen GmbH & Co. KG



1 | Leadership in innovation does not come about by chance: we are building the laboratories of the future. Safely and securely. We know how things are done and our customers appreciate that. Worldwide.



2 | Customers across the globe value our products and services “made in Germany”. Our modern laboratory production facilities extend over 15,000 square metres that enable us to meet the high demand for our products with ease.

Companies Overview

Waldner Laboreinrichtungen GmbH & Co. KG is a company of the Waldner Group, which employs approximately 1,100 employees worldwide. The Waldner Group consists of three legally independent companies with head office in Germany and eight subsidiaries worldwide.

Research and Development

Which factors characterize a laboratory furniture system, which will equip you well for the future? We have been able to answer this question with innovative ideas since we have been building mass-produced laboratory furniture ranges. Our developments have already had a significant influence on the laboratory working environment. We are frequently one step ahead of the competition.

Business Activities in the Arab countries

Waldner Laboreinrichtungen GmbH & Co. KG runs a branch office in Dubai, from which all activities in the Arab market are managed.

“Acting rather than reacting” has always been one of our strengths, and many of our innovations are regarded by experts as setting the benchmark and significantly influencing laboratories as places of work. We have raised the benchmark with SCALA: functional technology combined with a unique design and outstanding quality guarantees a maximum return on your investment, ensuring that you are ideally equipped to face the future. We work with a wealth of ideas and total commitment for the benefit of people who work in laboratories. As we understand their needs, we do everything to design laboratories as perfect places of work — down to the very last detail. As the innovative leader in the field of laboratories, we meet the exacting user requirements. When developing our laboratory systems, our knowledge and expertise concerning construction is complemented by input from outside, from the current requirements of customers and the market. For more than 60 years, we have been producing our laboratory components at our headquarters in Germany. Our developments have shaped the workplace in laboratories all over the world.

Waldner provides the full value chain from planning through production and installation to servicing. We offer the best possible security, quality, technology, project management, and service. Numerous industrial property rights & patents prove our technological leading position.

Waldner looks forward to helping your project be one of the best in the world!

Waldner Laboreinrichtungen GmbH & Co. KG
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info@waldner-lab.de, www.waldner-lab.com

Dubai Biotechnology and Research Park
P. O. Box 502454, Dubai, UAE
Visiting address: Al Thuraya Tower 1, 9th Floor, Office 906

Contact: Peter Schmid, *Director Middle East & Africa*
Phone: +971 44504167 | Fax: +971 44504168 | peter.schmid@waldner.de

Year of foundation: 1908 — Waldner Group
1950 — Waldner Laboreinrichtungen GmbH & Co. KG
Employees: approx. 1,400
Production Facilities: Wangen, Germany

Products: Laboratory furniture for laboratories and school labs, incl. fume cupboards, service modules, laboratory benches and sinks, storage cupboards, supply and disposal systems



ARAB-GERMAN
YOUNG ACADEMY
OF SCIENCES AND
HUMANITIES

The Arab-German Young Academy of Sciences and Humanities (AGYA) has been established in 2013 at the Berlin-Brandenburg Academy of Sciences and Humanities (BBAW) and the Arabian Gulf University (AGU) as the first bilateral young academy worldwide. The AGYA promotes the exchange between outstanding early career researchers from various fields in natural sciences, life sciences, humanities, social sciences, technical sciences, and arts. Its main goal is the support of interdisciplinary research projects and collaborative initiatives from different areas of science policy, academic management and education. Moreover, the AGYA fosters the intercultural experiences of its 25 Arab and 25 German members and promotes them as ambassadors of sciences and culture.

Arab-German Young Academy of Sciences and Humanities (AGYA)

Project: AGYA — Unleashing the Potential of Early Career Scholars from the Arab World and Germany
Contact: Prof. Dr. Verena Lepper | *Project Leader*
Dr. Sabine Dorpmüller | *German Managing Director*

AGYA at the Berlin-Brandenburg Academy of Sciences and Humanities
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dorpmueller@bbaw.de (Arabic speaking) | www.bbaw.de/agya

AGYA at the Arabian Gulf University
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Phone: +973 17 239 436 | agya@agu.edu.bh



BILDUNGSWERK
der Baden-Württembergischen Wirtschaft e. V.

The “Bildungswerk der Baden-Württembergischen Wirtschaft e.V.”, a Vocational Education Centre, has been the strategic education service provider for companies and their associations, schools, universities, politicians, and administration since 1971. As a provider of professional further education courses, qualifications, re-training, career preparation, and training, the Educational Centre is an important partner on forward-looking projects.

Bildungswerk der Baden-Württembergischen Wirtschaft e.V.

Project: BRIDGE — Technical and Managerial Trainings via Remote Service in Tunisia
Contact: Susanne Dieing | *Coordinator International projects*

Bildungswerk der Baden-Württembergischen Wirtschaft e.V.
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Phone: +49 761 15077326
dieing.susanne@biwe-bbq.de | www.biwe-bbq.de

Rexroth Bosch Group

As a member of the Bosch Group, with over 270 production plants located all over the world, Rexroth knows from its own experience the current needs for efficient training. Under the umbrella of Drive & Control Academy, Bosch Rexroth offers an extensive portfolio of knowledge products. The training systems allow extensive training in hydraulics, pneumatics and automation. Rexroth also provides comprehensive teaching and learning media.

Bosch Rexroth AG

Contact: Rayyan Ahmad | *Sales Arabia*

Robert Bosch Middle East
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Brandenburg
University of Technology
Cottbus - Senftenberg

BTU has 10,000 students and its degree programmes are highly regarded within Germany and worldwide. Key to this success are the many collaborations in both teaching and research that BTU actively pursues not only with other universities and research institutions but also with local small and medium-sized companies as well as large international organisations and enterprises.

Brandenburg University of Technology Cottbus – Senftenberg

Project: Studying Urban Design in Egypt and Germany
Contact: Christoph Wessling | *Coordinator Master Programm Urban Design*

Brandenburg University of Technology Cottbus – Senftenberg
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The Charité is one of the largest university hospitals in Europe where medical research and treatment is carried out with excellence and expertise. More than half of Germany's Nobel Prize winners in the field of medicine originate from this renowned institution, which is comprised of more than 100 specialized clinics and institutes. With its 13,000 employees and an annual turnover of more than € 1.4 billion, the Charité is one of the greatest entrepreneurs in Germany's capital and its agglomeration.

Charité Universitätsmedizin Berlin

Project: Medical Specialist Training in Berlin
Contact: PD Dr. med. Joachim Seybold MBA | *Deputy Medical Director*

Charité Universitätsmedizin Berlin
Charitéplatz 1, 10117 Berlin, Germany
Phone: +49 30 450570351 | Fax: +49 30 450570941
medical-specialist.training@charite.de | www.charite.de



Project: Salahaddin University-Erbil: Work-based Learning in the Automotive Sector
Contact: Markus Milwa | *Director Export*
Fathi Jamal | *Export Manager*

Dr.-Ing. Paul Christiani GmbH & Co. KG
Technical Institute for Vocational Training
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Christiani — your Expert in technical training and work-based learning. Work-based learning is a fundamental aspect of vocational training — it helps learners to acquire knowledge, skills and competences which are essential in working life since they are close to the needs of industry. With its products and activities Christiani is promoting and implementing this learning model. Christiani has been active in the field of technical vocational training for over 80 years and stands for high-quality, hands-on training and continuing education. Christiani is a competent partner at all levels of technical education, from schools through vocational training, colleges and universities, to advanced learning at all ages.

CLIC — Center for Leading Innovation & Cooperation HHL Leipzig Graduate School of Management



Project: BRIDGE— Technical and Managerial Trainings via Remote Service in Tunisia
Contact: Claudia Lehmann | *Executive Director*

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HHL Leipzig Graduate School of Management
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HHL Leipzig Graduate School of Management — Center for Leading Innovation and Cooperation (CLIC) is a think tank for innovation management in organizations and markets, chaired by HHL Leipzig Graduate School of Management, a highly ranked university-level business school. CLIC is a joint initiative driven by scientists from Friedrich-Alexander Universität Erlangen-Nürnberg, HHL and Technische Universität München. It is supported by a strong international network of experts in the field of innovation research.

Colleges of Excellence



Project: Trailblazing TVET reform: Saudi Arabia Drives Innovation
Contact: Dr. Michael Klees | *Director, Research and Development*

Colleges of Excellence
Granada Oasis Business Park, Building A4, 9th Floor,
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Colleges of Excellence (CoE) is a publicly funded private company that is responsible for overseeing the rollout of public-private partnership (PPP) technical and vocational colleges in the Kingdom of Saudi Arabia. CoE acts as a “one-stop-shop” for international training providers. The technical and vocational training colleges managed by this company are also called “Colleges of Excellence”.

Didacta — Association of the German Education Industry



Project: Competence from Germany in Vocational Training and Education
Contact: Reinhard Koslitz | *Managing Director*
Stefan Schliesing | *Project Manager International*

Didacta — Association of the German Education Industry
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Didacta represents the interests of the German education industry and promotes the application of high-quality teaching and learning aids, furnishings and equipment designed to meet the unique needs of all learning environments. Didacta joins hands with associations and organizations, political bodies, educational facilities, and the media in order to promote the German education industry worldwide.

Festo Didactic GmbH & Co. KG



Project: FACT Center for Mechatronics and Automation
Contact: Jeremy Duggan | *Manager Sales MENA*

Festo Didactic GmbH & Co. KG
Rechbergstraße 3, 73770 Denkendorf, Germany
Jeremy.Duggan@festo.com

Festo Didactic is the world-leading equipment and solutions provider for industrial education. We design and implement learning laboratories, educational equipment, and programs that train people to perform in highly dynamic and complex industrial environments. Our Goal and Perspective: Industrial technologies are changing rapidly. To meet constantly rising targets in productivity, manufacturing companies urgently need a workforce that is qualified in modern technologies and has the skills to contribute quickly and efficiently to the production process of a company. Festo Didactic, as a global partner and part of a leading supplier of automation technologies, provides education solutions that are relevant to the demands of the market and prepare a workforce to increase the productivity of industrial companies.



The German University of Technology in Oman (GUtech) is affiliated with RWTH Aachen University in Germany. Founded in December 2006 in Muscat, the University is the sole German University of Technology in the Gulf region. In winter 2014/15 a total of 1,124 students have been studying at GUtech and 173 international staff have been working at GUtech. The University offers five BSc, three BEng and one MSc programme.

German University of Technology in Oman (GUtech)

Projects: GUtech — Providing German Excellence in Technology
GUtech — The Gateway to Oman for German Training Providers

Contact: Dr.-Ing. Tobias Effey | *Head of Training and Smart Solutions Center*
Manuela Gutberlet | *Public Relations Manager*

German University of Technology (GUtech)
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The "German-Arab Master's Programmes" is a project that is jointly implemented by GIZ and DAAD and five university tandems from Germany and the Arab Region. The project is financed through BMZ. Increasingly, external partners like OFID join the GAMP network to support the programs or individual students (scholarships). Participating universities include: Egypt: Ain Shams University, Cairo University, Helwan University. Jordan: University of Jordan. Lebanon: Lebanese American University. Germany: Cologne University of Applied Sciences, Kassel University, Philipps-Universität Marburg, PH Ludwigsburg and Stuttgart University.

GIZ — Deutsche Gesellschaft für Internationale Zusammenarbeit

Project: German Arab Master's Programs (GAMP)
Contact: Werner Wasmuth | *Project Leader*

GIZ — Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH
Dag-Hammarskjöld-Weg 1–5, 65760 Eschborn, Germany
Phone: +49 6196 79–1279 | gamp@giz.de | www.gamp-online.net



The new GIZ-Festo Ar Rass German College is a joint venture between two German companies with extensive experience in the Kingdom of Saudi Arabia and the vocational training field: German International Cooperation (GIZ) and Festo Didactic, Germany. Both companies operate under the joint name of GIZ-Festo Training Services LLC, Saudi Arabia. The operation of the Ar Rass German College has started in Sep. 2014, after winning an international tender. The contract is valid for 5 years with the intent to be renewed. GIZ-Festo Training Services LLC has a strong commitment to the Saudi Arabian vocational training strategy and it is striving to operate more colleges within the next years. This expertise and knowledge will also be available to community and industry.

GIZ — Deutsche Gesellschaft für Internationale Zusammenarbeit

Project: GIZ-Festo Ar Rass German College, operated by GIZ-Festo Training Services LLC
Contact: Patrick McLaughlin | *Dean Ar Rass College*
Manfred Off | *Chief Executive Officer*
Marc R. Steib | *Chief Operating Officer*

GIZ-Festo Ar Rass German College
Patrick McLaughlin | patrick.mclaughlin@arrass-college.com | www.arrass-college.com

GIZ-Festo Training Services LLC, Office Riyadh
Leader Tower, Office 16, King Fahad Road, Riyadh, Kingdom of Saudi Arabia
Manfred Off | manfred.off@giz.de | www.giz.de
Marc R. Steib | marc.r.steib@giz-festo.com | www.giz-festo.com



The Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH is a German federal enterprise which offers workable, sustainable and effective solutions in political, economic and social change processes. The services delivered by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH draw on a wealth of regional and technical expertise and tried and tested management know-how. As a federal enterprise, we support the German Government in achieving its objectives in the field of international cooperation for sustainable development. We are also engaged in international education work around the globe.

GIZ — Deutsche Gesellschaft für Internationale Zusammenarbeit

Project: Arabterm: A Technical Directory for the Arab world
Contact: Guido Zebisch | *Principal Advisor*

GIZ Office in Morocco
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ARABTERM/GIZ, c/o BCA, 82, rue Oued Ziz, Rabat-Agdal
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www.arabterm.org | www.facebook.com/Arabterm



Horváth & Partners are specialists for the corporate performance management and performance optimization of private and public sector organizations. As such we offer our clients consulting services from developing the business concept through to anchoring the solution within the company. Horváth & Partners is German based with additional offices in Abu Dhabi and Jeddah.

Horváth & Partners Management Consultants

Project: Performance Management in the TVET System
Contact: Tobias Kern | *Managing Director*
Horváth & Partner Middle East GmbH

Horváth & Partner Middle East GmbH
Al Mamoura Building B, Mohammed Bin Khalifa Street (15th St), Muroor District, Abu Dhabi, UAE
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**imOVE at the Federal Institute
for Vocational Education and Training (BIBB)**



Project: Striving for Progress in Arab-German Training Co-Operation
Contact: Ulrich Meinecke | *Head of Division imOVE at the BIBB*

imOVE at the Federal Institute for Vocational Education and Training (BIBB)
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imOVE is an initiative of the German Federal Ministry of Education and Research to promote and facilitate global business and co-operation between German training providers and international public and private organizations. imOVE provides collaboration opportunities and helps to establish contacts with high-ranking officials and individuals from the education sector.

Karl Kolb GmbH & Co. KG



Project: Campus El Gouna — Showcase for International
Collaboration in Vocational Education
Contact: Bernd Herrmann | *Export Sales Director*

Karl Kolb GmbH & Co. KG
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Karl Kolb GmbH & Co KG is a leading German supplier for laboratory instruments and accessories with over 60 years of experience in the education, health, research, and industrial sector. True to our corporate philosophy: "All from one reliable source" we cover all services from full procurement of the required laboratory equipment, through delivery and installation, to subsequent maintenance, and finally, training and aftersales services.

Kraftwerksschule e. V.



Project: Training for Power Plant Staff in Saudi Arabia:
You can only Fill Gaps if You Know Them
Contact: Uwe Möller | *Senior Project Manager
(International Activities)*

Kraftwerksschule e. V. (KWS)
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www.kraftwerksschule.de

The kws PowerTech Training Center is a service provider for training of operating and maintenance personnel from power plants of all kinds. International clients who are operating power plants with German technology or wanting to have their operating personnel trained to German standards will find optimum training offers at the kws, and thus, reinforce a power company's competitiveness.

Lucas-Nülle GmbH

Project: SESP: Educational Push for the Saudi-Arabian Energy Sector
Contact: Christian Staab-Schmidt | *Chief Executive Officer
of Lucas-Nuelle Middle East FZE*



Lucas-Nülle GmbH
Siemensstraße 2, 50170 Kerpen, Germany
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Lucas-Nuelle Middle East FZE
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For more than 40 years the Lucas-Nülle company has stood for the development, manufacture and marketing of high-quality, state-of-the-art training systems and education equipment for further and advanced technical, engineering and vocational education. In addition to course offerings covering a wide range of basic theoretical material, project-oriented and didactic training receives special focus.

Osaily Trading Contracting Co.



Project: Unleash the Potential of Palestinians
Contact: Najah Osaily | *MBA, Administrative & Financial Manager*

Osaily Trading Contracting Co.
Osaily Trading Contracting Co.
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Osaily is a private shareholding company, established in Palestine 1987; specialized in construction. Its classifications are the highest in all kinds of engineering contracting projects. The company executed large number of the fundamental and distinctive projects. Our implementation is with best quality, within budget and time and with Zero incidents. Osaily is considered as one of the largest construction companies in Palestine



The Philipps-Universität Marburg, founded in 1527, is a classical German university with 26,727 students and 4,451 employees. It ranks among the top universities in the state of Hesse in terms of obtaining external research funds and also due to the fact that its scientists have received coveted awards such as the first Nobel Prize for medicine. Currently, it also boasts 13 Leibniz Prize winners.

Philipps-Universität Marburg

Project: Fostering the Entrepreneurial Spirit for Academic Innovations in Information and Communication Technology
Contact: Prof. Dr. Bernd Freisleben | *Department of Mathematics and Computer Science*

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Across the world and for many decades now, the Laboratory for Machine Tools and Production Engineering (wzl) of RWTH Aachen University has stood for successful and forward-thinking research and innovation in the area of production engineering. The department of Quality Management develops practically relevant and target oriented approaches seeking to solve current challenges of higher education institutions like the implementation of management systems.

Laboratory of Machine Tools (wzl) of RWTH Aachen University

Project: Establishment of a Technical University according to German Standards in the Sultanate of Oman
Contact: Dr. Patrick Beaujean | *Executive Chief Engineer*

Laboratory of Machine Tools (wzl) of RWTH Aachen University
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SAP Training and Development Institute FZCO supports in the creation of sustainable workplaces by boosting the business system knowledge of students, young graduates, and the experienced workforce in the region. Founded in November 2012 in Dubai, UAE, the SAP Training and Development Institute offers a host of programs tailored to bring SAP business skills to those who have a cultural and social understanding of a local region.

SAP Training and Development Institute

Project: SAP Builds Students' Skills to Combat Unemployment in the MENA region
Contact: Marita Mitschein | *Managing Director*

SAP Training and Development Institute
SAP Training & Development Institute FZCO
P. o. Box 341200 | Dubai Silicon Oasis Headquarters, B-wing, 1st Floor,
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Siemens in Saudi Arabia — “We make real what matters”
Siemens is a global powerhouse that stands for engineering excellence, innovation, quality and good corporate citizenship. Siemens is positioned along the electrification value chain — from power generation, transmission and distribution to smart grid solutions and the efficient application of electrical energy — and in medical imaging. Our strengths in automation equip us for the future and the age of digitalization.

Siemens Limited Saudi Arabia

Project: Localization — Advancing Business and Society
Contact: Waleed Hefni | *Head of Human Resources*

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With more than 11.000 participants per year, skz is the European leader in education and advanced training of specialized and executive personnel for the plastics industry. skz offers mechanical and industrial training as well as practice-oriented events for merchants, skilled workers, technicians, and engineers. We cover testing and quality assurance, product certification, consulting, training, and certification of management systems.

skz German Plastics Center (Middle East)

Project: BRIDGE — Technical and Managerial Trainings via Remote Service in Tunisia
Contact: Reda Ashkar | *Business Development Manager (Mena Region)*

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University of Hamburg



Project: Professional Joint Master
"Law and Economics of the Arab Region"
Contact: Dr. Nora El-Bialy | *Coordinator*

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The Institute as a research center started with the theoretical analysis of civil law more than 40 years ago. Today, the Institute applies the instruments provided by the economic analysis of the law to most aspects of the legal field, including public and international law and contributes with innovative cutting-edge research. Since 2012, the Institute has been cooperating with universities in Egypt and Tunisia. Further partnerships with the rest of the Arab region are foreseen.

University of Leipzig

Project: BRIDGE — Technical and Managerial Trainings
via Remote Service in Tunisia
Contact: Romy Hilbig | *Research Associate*

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www.wifa.uni-leipzig.de/isrm/innovationsmanagement.html



The University of Leipzig is the second oldest University in Germany and has more than 30.000 students. The department of Innovation management and Innovation Economics is part of the institute for Service and Relationship Management at the economics faculty. It is led by Prof. Dr. Thorsten Posselt, who is also the head of Fraunhofer MOZ in Leipzig.

Waldner Laboreinrichtungen GmbH & Co. KG

Project: Best Practice Laboratories made in Germany for Saudi Arabia
Contact: Peter Schmid | *Director Middle East & Africa*



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Haidoesch 1, 88239 Wangen, Germany
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Waldner manufactures laboratory systems for just about any requirements since 60 years now. In the meantime Waldner Laboreinrichtungen is Europe's leading manufacturer of laboratory furniture systems for the industrial sector as well as for universities, schools and hospitals.

Waldner Laboreinrichtungen GmbH & Co. KG
Dubai Biotechnology and Research Park, P.O. Box 502454, Dubai, UAE
Visiting address: Al Thuraya Tower 1, 9th Floor, Office 906

Waldner's laboratory program meets the highest standards in quality, energy saving, life time and functionality. However, the new technology behind the fume cupboards is particularly significant.

Imprint

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Arab-German Chamber of Commerce and Industry

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