

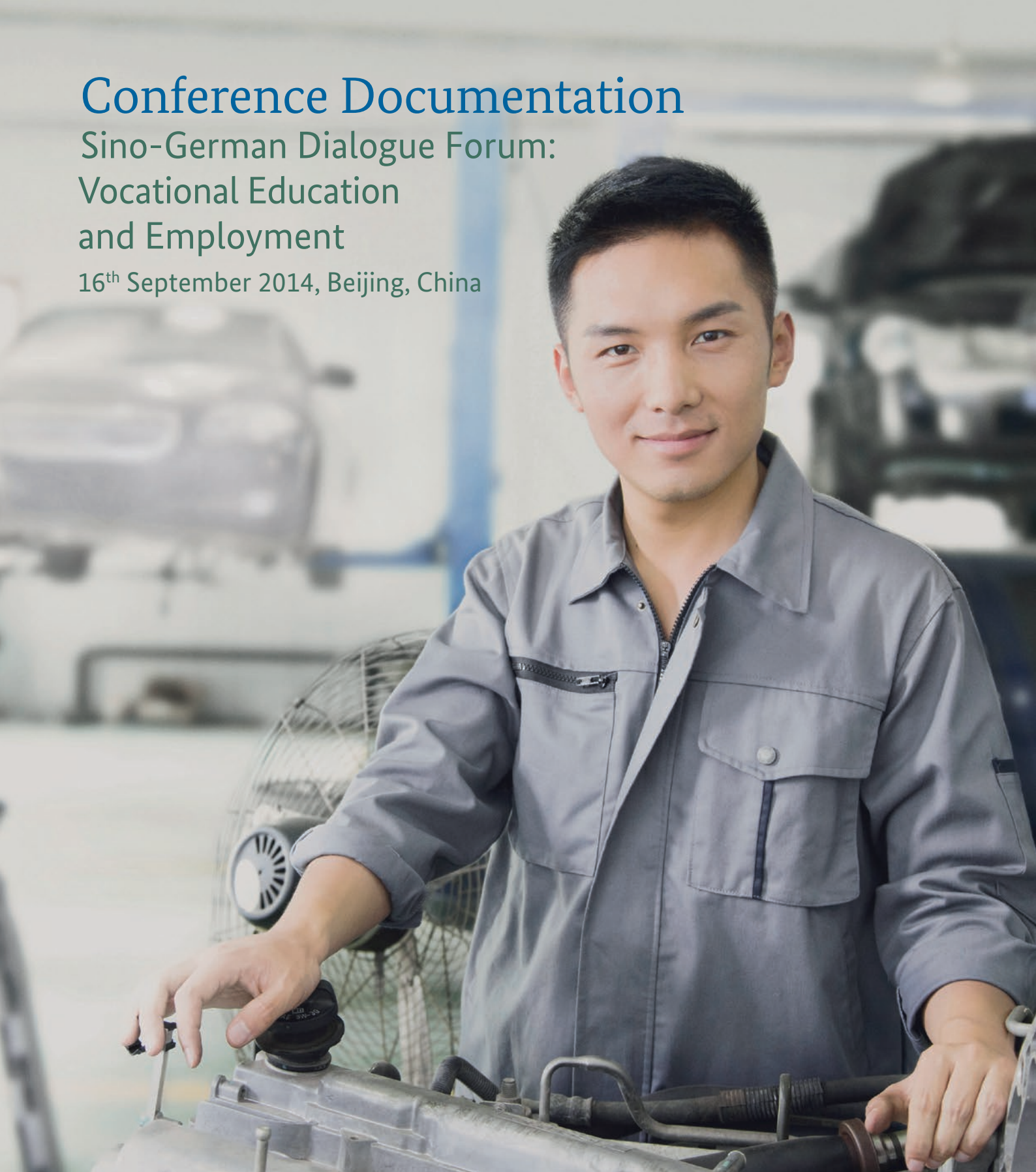
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Conference Documentation

Sino-German Dialogue Forum:
Vocational Education
and Employment

16th September 2014, Beijing, China







Introduction

The “Sino-German Dialogue Forum on Vocational Education and Employment” took place in Beijing, China on 16 September 2014. The conference was co-hosted by the **German Federal Ministry for Economic Cooperation and Development (BMZ)** and the **Chinese Ministry of Finance (MoF)**, in cooperation with the **German Federal Ministry of Education and Research (BMBF)**. It was implemented by the **KfW Development Bank** with the support of the **Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ)**.

The dialogue forum was the fifth of its kind, highlighting long-standing cooperation between the two countries. The one-day conference brought together more than 250 decision-makers, professionals from vocational education institutions, researchers and finance experts from both China and Germany. The conference

provided a platform for dialogue and for the exchange of knowledge and practical experiences. Major conference themes included opportunities and challenges in demand-driven and labour-market oriented education, such as public-private-partnership approaches and different forms of cooperation between educational institutions and the private sector. The conference further explored new opportunities for cooperation between China and Germany. There was a general consensus that continuing exchange is beneficial for both countries and that deepening Sino-German cooperation is highly desirable in that it can assist the reform of the Chinese vocational education system.

This report summarises all speeches, presentations and discussions from each session of the conference.



“We shall further enrich our cooperation”

Mr Li Xinhai, Deputy Director General, International Cooperation Department, Ministry of Finance, P. R. China

The conference was opened by **Mr Li Xinhai**, Deputy Director General at the Chinese Ministry of Finance. He stressed the importance of vocational education as a key component of the current Chinese reform strategy, which is pursuing development through innovation and economic restructuring. In this regard, cooperation with Germany, a country world famous for its vocational education and training (VET) system, will greatly assist the Chinese government in achieving its goal of establishing a modern VET system by 2020. Mr Li was confident that cooperation will continue to improve the quality of educational and employability of graduates.

Sino-German financial cooperation – with the participation of the MoF – started in 2010. Since then, German promotional loans have already had positive results. Going forward, Mr Li made two suggestions to further improve cooperation between

both countries. Firstly, the scope of cooperation should be extended. In particular, this would involve the transfer of knowledge; concepts of vocational education should be equally as important as the improvement of schools and import of advanced technology. In order to learn from the German system, he actively encouraged importing advanced and modern concepts and quality educational resources, such as modern curriculum systems. Secondly, Mr Li said that experience clearly shows that successful projects are always based on effective communication and trust. Furthermore, identifying potential challenges and new areas of cooperation will also strengthen Sino-German partnership. This year’s forum was an excellent platform for communication and exchange of ideas between governments as well as other stakeholders such as academics, business representatives and project staff.



“The German VET system ensures access, quality, mobility and capacity for innovation”

Dr. Frank Rückert, Head of Economic Department,
Embassy of the Federal Republic of Germany, Beijing

Dr. Frank Rückert, Head of the Economic Department of the Embassy of the Federal Republic of Germany in Beijing, said that Germany and China can look back on many years of successful cooperation in the area of education and training, the first cooperation agreement having been signed in 1983. Since then, numerous training courses and joint projects have been developed and more than 100,000 experts from Germany and China have exchanged knowledge of and experiences in vocational education.

One reason for this successful track record is the success of the German VET system. Mr Rückert explained the long history of vocational education in Germany, one that can be traced back to the Middle Ages and has evolved into Germany's modern dual VET system (Duale Berufsausbildung). Furthermore, combining workplace-based learning and vocational schools in a standardised and comprehensive system for many apprenticeship-based professions is a major factor in Germany's economic strength. Companies and young people can expect that their efforts in the field of vocational education are part of a system that ensures access, quality, mobility and innovation. Vocational education is thus viewed as an auspicious starting point for professional careers in Germany.

As in recent years, the importance of VET has risen worldwide thanks to globalisation and increased competition, shorter innovation cycles and new global trends in the division of labour. This has resulted in an ever growing demand for specialised technical experts to sustain economic growth. China has become a major world economic power and aspires to be a technological frontrunner. Consequently, the Chinese economy needs not only scientists, academics and managers, but also skilled employees with a strong technical background. This exacerbates the skilled labour shortage. Skilled labour has similarly become a major concern for subsidiaries of German companies in China. The Chinese government is aware of the need to improve VET, both to make it more attractive to talented young people and to address the skilled labour shortage in the Chinese economy. This is also in the interest of Germany, as it helps German companies' subsidiaries to fulfil their need for qualified personnel. Germany appreciates the strong Chinese interest in this area, values joint efforts made, and looks forward to further cooperation in the future.



The German-Chinese Alliance for Vocational Education

Mr Christian Stertz, Head of Division, Federal Ministry of Education and Research, Germany

As the first key note speaker, **Mr Christian Stertz**, Head of Division at the BMBF, presented the development of Sino-German cooperation in vocational education and introduced the BMBF's policy concept for international VET cooperation.

Sino-German cooperation in VET can look back on a history dating back more than thirty years. Cooperation began under the framework of development cooperation and has since developed into an educational policy dialogue of mutual learning achieved through sharing experiences of common interest. In 2011, a new initiative started when the Chinese Ministry of Education (MoE) and the German BMBF declared their partnership, giving birth to the German-Chinese Alliance for VET.

The work of the alliance, like all BMBF international cooperation initiatives, is oriented around the five core principles of the German dual system: cooperation and consensus between social partners, economic organisations, and the state; learning through work processes; accepting national standards; engagement and development of qualified staff; and institutionalised research and consultation. These core principles form the basis of Germany's world renowned dual VET system, but Mr Stertz pointed out that such a system cannot be directly transferred from one country to another but needs to be adapted to the specific partner country. One example is cooperation between social partners, industry and government, where a different approach is often necessary. The general aim of the exchange is to advise and support a partner country, like China, in their endeavours to modernise their own system. This means the reform process is led by the partner country, which has to define a clear objective for itself. The result of the ongoing dialogue and mutual learning process is to find the Chinese path to a dual system. This means that understanding of the Chinese system, its framework and setting must be shown by the German side if good advice is to be given. Equally, Chinese partners have to fully understand German principles in order to identify elements of a dual system suited to the Chinese system.

For implementation, the BMBF uses various different instruments and measures. Firstly, there are bilateral working groups for professional training which function as platforms for learning and political dialogue. Here, German representatives, under the leadership of the BMBF, discuss current developments in VET with the relevant Chinese partners. Such issues range from VET standards, occupational profiles and the overall curriculum to further education programmes for training staff, inter-company training centres and approaches to cooperative management. Meetings take place at the ministerial level, bringing together different ministries that may not have previously worked together. Other VET stakeholders are also welcome to take part.

Secondly, one of the alliance's key objectives is to establish cooperation centres for VET in China, in order to advance cooperation between companies and providers of professionally-oriented training. It also aims to further support the development of competency standards and the recognition of qualifications. The first Sino-German cooperation centre in professional training, with a focus on automotive mechatronics, was opened in August 2012 in Chongqing. Other cooperation centres, focusing on education and teacher training in Shanghai and environmental technology in Qingdao, have also commenced work. All pilots are tailored to their regional contexts, but provide pertinent examples for the whole of China.

These initiatives are accompanied by other BMBF programmes; the VET export funding priority and the iMOVE marketing initiative, for example, which supports German education and training providers in developing an international market in education. Furthermore, the central office at the German Federal Institute for VET (BIBB) for international cooperation and exchange in VET offers expertise and roundtable discussions, providing for a continuous exchange on issues concerning, for example, the political sphere.

Vocational Education in China

Mr Liu Hongjie, Director, Department of Vocational & Adult Education, Ministry of Education, P. R. China

The second key note speech was delivered by **Mr Liu Hongjie**, Director at the Department of Vocational & Adult Education of the Chinese Ministry of Education. Mr Liu described the current lay of the land regarding vocational education in China, current reform efforts, major policies and further steps. Mr Liu stressed that vocational education is already an important pillar of the Chinese education system, with millions of students in vocational education programmes in secondary and higher vocational education institutions. Furthermore, vocational education plays a crucial role in the general reform of the economic restructuring strategy and in accelerating the implementation of the innovation-driven development strategy, which poses higher requirements for labour supply as well as new opportunities. The aim is to develop a modern vocational education system by 2020 as stipulated in the Outline of National Education Reforms and Development Program (2010-2020).

Since reform of China's VET system began, the employment rate for graduates from secondary vocational schools has been over 95%; for higher vocational colleges the employment rate six months after graduation is 90%. These are excellent statistics, especially compared to general employment rates. In the last decade, there have been 80 million graduates from vocational education institutions, accounting for 60% of the newly increasing employment population. VET graduates are becoming a major source of technical staff in fast developing industries, such as manufacturing, transport, electronic business and service sectors. Indeed, over 70% of new employees in these sectors are from vocational schools.

Nevertheless, the reform process is not yet complete and the continuing importance of this issue was underlined by the new Chinese government this year. During high-level meetings, both President Xi Jinping and Premier Li Keqiang stressed the national strategic importance of vocational education. 2014's publication of the State Council's Decision on Accelerating the Development of Modern Vocational Education and the Construction Plan for Vocational Education System (2014-2020) by the Ministry of Education together with five other ministries outlined new aspects of the overall strategy and action plans for accelerating the development of modern vocational education in China.

The new policy framework for vocational education consists of six core building blocks. The first is the reaffirmation of vocational education as a strategically vital component in transforming the model of economic growth. The government should therefore strengthen regulation and supervision of the sector. Second, vocational education should be developed as a multi-tiered system that produces a variety of skilled workers who meet the demand of the market, but more importantly, offer workers the opportunity to advance their own careers. Therefore, the Chinese government wants to build a bridge between the general and vocational education sectors – including secondary, higher education, undergraduate and postgraduate programmes – and provide various channels for people to continue their education and give them the opportunity for continuous and life-long learning. The third core building block is to give greater importance to enterprises and industrial associations, deepening their integration and partnerships with vocational education institutions. By offering diverse incentives, industry will be encouraged to become more involved in the operation of or even to run vocational schools.



Fourth, partnerships between vocational schools and employers would be encouraged and supported by government policies and financial endorsements. To better combine work with vocational education, it is essential to engage employers in the process of designing curricula, teaching methods and internship patterns. This will also ensure that students are trained in a manner consistent with the requirements of the labour market. Fifth, use is to be made of market mechanisms for supporting non-governmental sectors developing vocational education more independently of government administration. Furthermore, innovative models for the ownership and management structure of schools should be developed; industrial associations, businesses and community representatives will be allowed on the management boards of vocational schools, giving them the capacity

to make joint decisions on school-related issues. Finally, the government guarantees the development of vocational education with supportive policies and regulatory supervision. In particular, guaranteeing the basic principles of equality and providing equal chances and access for employment and development. This especially means a continuation of the support of vocational education in poverty-stricken, rural and ethnic minority areas.

Mr Liu said that the importance of VET is especially clear in the context of economic globalisation and in order to reach its targets, China should be open to international cooperation. He expressed his hope that Sino-German efforts will continue going forward, widening the scope of this fruitful cooperation and supporting China's reform efforts.



Session 1

BEST PRACTICES OF SINO-GERMAN COOPERATION



The Sino-German Automotive Vocational Education Project – SGAVE

Mr Uwe Heider, Manager Vocational Education Major Automobile Technology and Assembly Processes, Volkswagen Group China & Mr Dennis Horch, Senior Project Manager, Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

In a joint presentation, **Mr Horch** and **Mr Heider** presented best practice from the Sino-German Automotive Vocational Education project (SGAVE). Active since 2011, the project is implemented by GIZ on behalf of BMZ and the Chinese Ministry of Education. It follows a unique approach, bringing together five German car manufacturers (Volkswagen AG, Dr.-Ing. h.c. F. Porsche AG, Daimler AG, BMW AG and AUDI AG) with the aim of improving the qualification standard for the education and training of car mechatronics in China. For German car manufacturers, China has become the most important and fastest growing market. In addition to growth, technological innovation puts additional pressure on the availability of qualified personnel in

production plants and, increasingly, in the dealer network in after-sales. All car manufacturers run in-house training and qualification programmes, but resources are limited.

The project follows a comprehensive and holistic approach and takes action on three different levels: individual (students, teachers), institutional (school management) and on system level (decision-makers). In addition to the introduction of modern curricula and teacher qualification, the project also aims to improve the relationship between dealerships and colleges, and to introduce and implement quality management systems and practical examinations.

The concept of SGAVE is to implement a modernised curriculum in 25 VET colleges located in 22 cities across China. Each college has to set up at least one model class of 30 students. The student training programme takes three years and includes one of the most important elements of the German VET system: a strong focus on practical lessons in the classroom and in companies, where students have the opportunity to gain more experience and develop practical skills. This practical orientation is, of course, also found in the curriculum that was developed in cooperation with dealerships, to ensure that it covers the required competencies. In addition, the curriculum was created in a manner which simulates real customer orders and is the basis for training at the colleges. Based on this idea, the final examinations are also similarly structured. The students have to run through five stations: chassis, engine, electricity, gear boxes and maintenance. At each station, a real life customer order is simulated. The student has 75 minutes to solve the task including a technical interview (so called Fachgespräch) with the two assessors, one from the college and one from the dealership.

In order to ensure the effective implementation of the action-oriented curriculum – a concept that is very new in China and demanding for teachers, the project also focuses on getting competent teaching staff qualified. Each SGAVE college has

to provide a minimum of four teachers who, as part of the programme, are trained both in Germany and China and take the necessary theoretical and practical examinations to become a certified SGAVE teacher. After obtaining the certificate, teachers will continue their education with annual manufacturer-led training on new technologies in order to cope with innovations.

Over the three and a half years that the project has been running, a wealth of experience has been gained and the students of the five pilot colleges who started in 2011 have finished their apprenticeships as car-mechanics and started their professional lives. The SGAVE students also gave positive feedback, stating that they increased their level of confidence and significantly improved their communication skills, particularly in comparison to their fellow students. Mr Horch and Mr Heider explained that the impact of the project on the colleges was tremendous as it not only introduces a new curriculum and materials, but also targets changes in the management of the colleges and the teaching approach in general. Here, SGAVE is in line with the Chinese reform strategy; particularly in terms of its aims to have a bigger impact on the general management and teaching approaches of the colleges, to foster cooperation between colleges and enterprises, and to introduce modern internships and practical examination.





Sino-German Promotion of VET in Xinjiang: Joint Development of the Star Project

Mr Yan Minfan, Party Secretary and Vice President, Xinjiang Vocational University

Picking up on the previous presentation, Party Secretary and Vice President of the Xinjiang Vocational University **Mr Yan Minfan** gave an overview of the Sino-German cooperation project that his university has established and the progress and lessons learned from the partnership. The project is an excellent example of Sino-German cooperation, not only because the university is a SGAVE school, but also as it implemented the programme with a loan from the KfW Development Bank. As a result, the university has since been approved by the MoE. Furthermore, the Xinjiang Vocational University is cooperating with over ten universities in China and, with support from the government, strengthened cooperation between academia and industry. It has also improved teaching conditions, focusing especially on higher vocational subjects. The cooperation project has had a great impact on vocational education in China, drawing national media attention.

Mr Yan Minfan highlighted three workshops (automotive, automation systems and electric) that will be constructed in the near future to provide high-quality training facilities for the trainees at Xinjiang University. The aim is to facilitate partnerships between universities and German car manufacturers. For this reason, delegations of teachers and faculties have been sent to Germany to learn VET best practices in order to successfully replicate the German model in China. Mr Yan emphasised the high quality of the manufacturing sector in Germany and that German manufacturers never compromise on quality. This is also the reason for the esteem in which VET is held in German society.

Looking ahead, Mr Yan Minfan expressed his goal that after the completion of the new training facilities, the university will further expand the scope of cooperation and that the Sino-German (Xinjiang) Vocational Education Cooperation Demonstration Base will be able to contribute to Xinjiang's economic development and social stability with highly qualified and technically skilled personnel.



Financing Vocational Education in Yunnan

Mr Yang Jinhua, Professor and Senior Engineer and President at Yunnan Jiaotong College

The third presentation by **Mr Yang Jinhua**, Professor, Senior Engineer and President at Yunnan Jiaotong College, focused on the contribution of German funding sources, e.g. the KfW Development Bank promotional loan received by Yunnan Jiaotong College and how this loan helped the institution to maximise its potential.

Mr Yang first gave an overview on the college's background. The Yunnan Jiaotong College is located in Yunnan province in the South-West of China and was established in 1952. Since then, it has taught over 60,000 students, providing strong support to the Yunnan province transportation industry in terms of talent. In order to further develop vocational education, the Yunnan government acknowledges the great importance of the vocational educational industry by way of setting policy incentives. The aim of the university is to cultivate a large pool of talent with comprehensive and unique skills that can support the further development of the local economy.

Through the partnership, the college has introduced advanced VET concepts and made use of German experience in terms of project conceptualisation, execution and management. The German promotional loan of 43 million Euros from the KfW Development Bank has not only financed the college's equipment to train the students, but has also given the college a chance to learn from the German dual VET system in order to more easily incorporate it into the Chinese educational system. With the successful implementation of the project, the college will become an important centre of talent and expertise cultivation, as well as serving as a gateway to other South- and South East Asian countries. Mr Yang Jinhua's wish for the future is that his university can be both a vocational and academic institution, working closely with industry in order to be a key site of talent development and the training of highly skilled workers for the transportation industry in Southwest China.



The Sino-German Automotive Qualification and Certification Centre in Chongqing

Ms Cao Qingying, Chief Representative of the Shanghai Representative Office of the German Central Agency for Vocational Continuing Education and Training in the Skilled Crafts (ZWH)

Ms Cao, from the ZHW, introduced the Sino-German Automotive Qualification and Certification Centre in Chongqing (SGAQCC), the first cooperation centre under the framework of the Sino-German alliance. The project is funded by the BMBF with support from the Chinese MoE and the Office of Education in Chongqing. The SGAQCC project started in 2011 and is located at the Chongqing University of Technology (CQUT). It is also a sister project of the SGAVE project, supported by the Chongqing Education Commission.

Ms Cao stressed that the Chinese are very familiar with the dual system in Germany. For them, it is the perfect combination of theory and practice. Vocational education guarantees the quality of future talent and alongside sound and healthy economic development by providing highly technically skilled workers. In recent years, the inverse relationship between a strong VET system and low levels of youth unemployment became once again very clear in the economic developments in Europe.

Taking a look at the situation in China, Ms Cao explained that in contrast to developments in Germany, the overall number of

pupils is rising along with an increase in the number of apprenticeships. After their vocational training, young applicants often have difficulties finding a suitable job in their professional field. This is because entrants lack practical experience, as vocational training in China is often largely theoretical. In light of these circumstances, the project's aim is to build and run SGAQCC in order to sustainably provide China's growing industry with well-trained and skilled employees. The project focuses on training up new trainers, and uses a modular structure and action oriented methodology. Their training programme, which was jointly developed by the Germans and Chinese, lasts eight months and participants come from vocational schools, colleges and universities in Chongqing. Initially, most of the course takes place in China but participants also spend some time in Germany – the share will decrease as the program advances. Currently, with the support of the Chongqing government, infrastructure in China is being developed with workshops following German standards so that in the future, 100% of the training can be done in China. The project will serve as a model and inspiration for Chinese enterprises to understand the significance of and become involved in practical training.

Session 2

FINANCING, PLANNING AND MANAGING VOCATIONAL EDUCATION





Preparing for Successful Technical VET

Mr Bernhard Streicher, Consultant, Senior Expert Technical Vocational Education & Training

The first presentation of the finance, planning and management session was given by **Mr Bernhard Streicher**, senior expert in technical VET, who has done extensive international work within the field, including with the KfW Development Bank in China. Mr Streicher set the stage for the session by giving an overview of the four main bases to be covered in the preparation and implementation of a successful VET project that can prepare students for successful employment in industry: demand analysis; training preparation and methodology; teacher training; and setting up efficient technical training centres.

The first step is a demand analysis, in order to ensure the relevance of the training programme to the companies and employment opportunities within the industry. Mr Streicher proposed cooperating with industry and outlined various methods of developing a programme that reflects the needs of industry. Without the cooperation of industry, there is a danger of the programme being overly academic. Germany can serve as a positive example as industry is not only a partner, but also has a leading role in vocational training.

The next stage, training preparation and methodology (curriculum development), involves translating the needs established in the demand analysis into training programmes which will best prepare students for the working world. Here, academics should do the job. One important factor is that the curriculum is designed in a way that students learn Handlungs-kompetenz, meaning they have the capacity to be able to make decisions by themselves depending on the situation, and have the confidence to act on these decisions. A combination of theory and practice is crucial in order to prepare students for lifelong learning, as technologies will constantly change. Schools should focus on the principles of technology and build a good practical and theoretical foundation on which students can build their competencies. However, as schools will not necessarily have all the latest technologies, internships, apprenticeships and cooperation with industry are also important in order to address this technological gap.

Thirdly, teacher training: the teacher is one of the most important resources in VET. They have to conduct courses, work with students and industry, and keep up with new technological developments. With these demanding and challenging tasks, it is important to find the mechanisms which will best prepare and support teachers. Mr Streicher praised the Chinese approach in this regard. Under the Chinese system, teachers are allowed to first gain experience in the industry and have an experienced teacher as a mentor at the beginning of their career. Mr Streicher suggested setting up a network of training centres in China to coordinate the exchange of teachers to different institutions

(to learn new technologies etc.). Ideally, this network could be extended internationally, for example, with other German cooperation centres in Asia.

Finally, setting up efficient technical training centres on a realistic budget is also crucial. Early planning with architects and relevant departments will ensure nothing is forgotten. Safety is also of primary concern, not only for the wellbeing of those who use the training centres, but to instil a careful attitude towards safety among the students.





Education and Training Infrastructure

Mr Gao Qi, Head of Sales, Festo Didactic China

Picking up on the ideas presented in the previous presentation, **Mr Gao Qi**, Head of Sales with Festo Didactic China in Shanghai, went into more detail on the education and training infrastructure. Festo is a leading German company for industrial training and education programmes, starting its business in China back in 1985 with a focus on training equipment for education in electronics and mechanics and training industry. Based on advanced technology and high-quality service, Festo Didactic China has established long-term partnerships with more than 600 educational institutes, offering complete packages of end-to-end solutions.

In terms of teaching and training philosophy, Mr Gao emphasised the importance of really meeting the needs of the market, which he sees as the cornerstone of development. Questions to bear in mind are whether the education system provides the right quality and quantity of skilled graduates, whether there are enough jobs available in the labour market and what skills these jobs require. The benchmark for education institutions should therefore lie in the confidence and satisfaction of the industry.

This evolution involves continuous adjustments and adaptations to ensure the training quality and to make sure that trainees and students are equipped with the right set of skills to be qualified for their future jobs. Their skills must not only be suitable for industry but also allow them to keep pace with the new products and technologies these companies are embracing. Furthermore, educational institutions should not just train fundamental basic skills, but also master advanced skills. In practical terms, this means that universities should teach their students how to operate mechanical and electrical equipment, including pneumatics, hydraulic, electric equipment etc. At the same time, cross-disciplinary talents should also be developed and more broadly, a modern learning environment should be fostered at the institutions.



Financing Vocational Education in China

Mr Wang Zheng, Officer, Department of Education, Science and Culture, Ministry of Finance, P. R. China

Mr Wang Zheng introduced funding mechanisms for VET in China. The Vocational Education Law of the People's Republic of China clearly says that "the state encourages raising funds from various channels according to law for the development of vocational education". China has already developed a model for the government and the market to jointly organise vocational education with diversified, multi-channel funding, the major part of which is covered by the government. In 2012, for example, government spending accounted for more than 70%; the non-governmental share is dominated by tuition fees.

In recent years, the central government committed itself to the concepts of "pushing the reform and promoting development" and breaking the boundaries between industries, companies and establishing new modes of ownership. To this end, it introduced a series of policy measures to guide and support efforts at the local level to increase investment, and gradually formed an inclusive and preferential financial supporting framework covering all aspects from school capacity and infrastructure building, to student aid, to teacher quality enhancement.

From 2005 to 2012, every level of government increased its average annual spending on VET by more than 20%. During this time, China also established a productive relationship with the German government cooperating to enhance the quality of VET teachers. Currently, the major sources of VET financing come from the government and tuition fees paid by the students. There is however still large potential to increase the amount of social funding that can be tapped. In June 2014, China held a national conference on vocational education and published the "Decision on Accelerating the Development of Modern Vocational Education", defining clear goals and tasks to accelerate the development of modern vocational education in the future. For the Ministry of Finance, the next phase will focus on three aspects: first, managing the relationship between the government and the market and promoting and shaping the reform and development of modern vocational education; second, ensuring that the VET sector is results- and performance-oriented in order to maximise the potential of public finance; and third, to guide and encourage social forces to provide vocational education.



German Financing of Vocational Education Projects in China

Mr Jens Bessai, Head of Division for Sustainable Economic Development in East Asia and Pacific, KfW Development Bank

Mr Jens Bessai, Head of Division with KfW Development Bank, focused on financing of vocational education by KfW in China. KfW Development Bank acts on behalf of the German government in implementing financial cooperation for over thirty years. Higher Vocational Education has become a priority area in the Sino-German cooperation in recent years. VET Institutions in China can apply for KfW Promotional Loans and benefit from long term lending and extended grace periods. Currently, KfW is financing equipment and minor civil works for eighteen projects in China, in ten provinces, with a total of more than 370 million Euros. Eight additional projects with a volume of approximately 160 million Euros are in preparation.

Mr Bessai emphasised the principles of Promotional Loans. First of all the projects supported should be technically and economically sustainable and the overall financing of the project must be secured. Minimum loan amounts for individual projects are 20 million Euro, but higher volumes are appreciated. KfW loans require a transparent tender process including international

competitive bidding. Additionally, the equipment share should be at least 70 % of the loan, while the education equipment should be at least 50 %. As a result, technical vocational institutions are the main target of KfW loans. Long loan maturities of between twelve to fifteen years are offered, with a grace period of two to five years. A fixed interest rate ensures reliable planning.

Finally, Mr Bessai elaborated on the Chinese approval process, which requires the support of both local and central government institutions. Interested parties can get more information via the KfW Beijing office or find information on the Chinese Ministry of Finance's website.



Session 3

STRENGTHENING EFFICIENCY IN VOCATIONAL EDUCATION



Quality and Efficiency in Vocational Education through Sino-German Cooperation

Prof. Zhao Zhiqun, Professor, Beijing Normal University

Moving away from the focus on specific projects, **Prof. Zhao Zhiqun** from the Beijing Normal University took a critical look at the quality and efficiency of vocational education in China, especially through in the realm of Sino-German cooperation. Firstly, Prof. Zhao pointed out the fact that in China, vocational education is generally believed to be in the public interest, especially in supporting vulnerable groups' social mobility. Therefore, these criteria have a great deal of influence on the assessment of VET policies. There is relatively little research on the effectiveness of vocational education and there are few empirical studies assessing the benefits of Sino-German cooperation projects. A few papers studied the characteristics and effects of these projects at different stages. They found that the benefits of cooperation were perceived differently by staff members, depending on their background. Nevertheless, their understanding of "benefits" is only conceptualised in terms of "outputs". Prominent examples are "the number of trained

teachers and the management team members" or the "introduction of concepts of vocational education". Studies show that the correlation between output and impact on vocational education practice is often rather low. Little attention has been paid to the analysis of the actual long-term impacts of cooperation on China's vocational education sector, such as changes in the teaching methodology and the education system as a whole.

Prof. Zhao explained that this gap needs to be filled via the establishment of internal and external quality assurance systems for vocational education. For example, increasing the impact of Sino-German cooperation projects in vocational education should be achieved via more cooperation in terms of scientific monitoring (*wissenschaftliche Begleitung*) and continuous third-party quality control, as well as greater intergovernmental cooperation on policy.



Efficiency in VET

Dr. Hannelore Kress, Project Manager at GOVET China, Russia, Italy and Slovakia, Federal Institute for Vocational Education (BIBB)

Looking at the question of efficiency in vocational education from the German perspective, **Dr. Hannelore Kress** of the BIBB stressed the importance of the definition of indicators in order to determine whether investment in vocational education is being optimally allocated. Data is crucial to providing a solid basis for the assessment of a VET system which ensures sustainability and long-term high-quality. For Germany, the BIBB publishes an annual report on the state of German vocational education and training and an accompanying data report that covers comprehensive information and analyses as well as key indicators and benchmarks.

Dr. Kress expanded on the issue by providing three different perspectives with regard to the question of efficiency: young people, enterprises and the government. For young people, the major reason for undertaking VET is to find a secure job. Data clearly shows that while the risk of VET graduates going through long period of unemployment is significantly smaller than in an academic career, it is still a challenge to successfully match students' preferences and market demand for VET skills. Further, it is very important to provide long-term career opportunities for VET graduates such as longer term prospects for management positions.

For business, investing in VET secures a skilled work force, tailor made for their own business needs. It poses only a small net loss when an internally trained skilled worker leaves. Dr Kress stressed that reliable forecasting on recruitment is key for businesses; they therefore have to think of the longer term. If companies do not invest in VET, it is much worse. In Germany, industry invests 24 billion Euros in VET each year, while the government only spends eight billion Euros. Obviously, businesses are aware of the need for investment in education and are the driving force in German VET as they benefit from highly skilled workers in the long run.

Policy makers are interested in matching demand and supply since their objective is mainly to maintain a high employment rate, but also to promote vocational education as career path for young people and as tool to include vulnerable social groups. In order to meet these objectives, the government should try to provide a good framework that sets incentives for companies to take part in this very important process. Working towards this goal, governments need to establish a legal framework which facilitates dynamic and effective action.



Outlook of Vocational Education in China and Germany

Mr Roland Siller, Member of the Management Committee,
KfW Development Bank Europe and Asia

Mr Liu Hongjie, Director, Department of Vocational & Adult Education, Ministry of Education, P. R. China

Mr Christian Stertz, Head of Division, Federal Ministry of Education and Research, Germany

Mr Wang Rongsan, Vice-President, Dongying Technician College

The closing panel reflected on the discussions and presentations of the day and took a look at the road ahead. **Mr Roland Siller**, Member of the Management Committee of the KfW Development Bank Europe and Asia, said there was a large consensus on the importance of quality within a system of vocational education. Only quality can ensure that vocational education is able to fulfil its potential with regard to stability of economic development and employment opportunities for young people. In order to ensure quality, a focus on demand and working together with

industry is crucial, as are quality infrastructure and high-quality instructors. In its engagement with China, the KfW sees all these factors as important and it allows no compromises on quality as it wants its investment to be both high-quality and sustainable. The KfW has built up a substantial vocational education portfolio of 400 million Euros in China in the last couple of years and can offer a great deal of international experience, including networks of companies and international experts to support Chinese institutions in their work on quality.

But at the same time, it is clear that Sino-German cooperation projects cannot have a mass impact in a country the size of China. Instead, an approach must be taken of selecting and assisting high-quality showcase projects that can serve as an example. The next step would then be to follow up on the projects, monitor progress and take advantage of lessons learned.

Mr Siller reminded the audience that changing an educational system, especially such a radical reform of a whole system, is a long-term project and several factors such as culture and market demand have to be taken into account. As an intermediate target, a critical mass of companies that have realised that investing in vocational education is worthwhile is needed. Here, the showcase projects will serve as an example and show that results can be replicated. In doing so, they will contribute to the Chinese reform strategy.

Going into more detail on how positive results from pilot projects can be fed back to the general system and how lessons learned can be best incorporated into the larger strategic policy process, **Mr Liu Hongjie**, Director of the Department of Vocational & Adult Education at the Chinese Ministry of Education, explained that at the government level, it was important to continue dialogue and exchange with Germany. Information sharing and

assessment mechanisms need to be enhanced in order to identify best practices that are suitable for the general reform process. China will also work on providing more data on VET. He suggested that Sino-German cooperation should intensify research on VET to support the process. Furthermore, both governments should exchange annual reports and supporting research; of course, the China must follow up successful experiences with legislation, education pedagogy and the design of suitable programmes and curricula.

From the industry perspective, Mr Liu stressed again that one important aspect of educational reform in China is that companies should play a bigger role, most importantly in defining curricula and providing courses, as well as by offering corresponding jobs and training opportunities. Here, he said, much still can be learned from Germany's private sector involvement and cooperation. Further to this, Mr Liu said that the Chinese government wants to encourage industry associations and large enterprises to participate in Sino-German cooperation in vocational education. By involving companies, they can contribute both to VET cooperation and be a part of policy decision making processes and overall planning. Chinese champions in VET should cooperate with German partners. Liu believes that this would yield positive results.





Mr Christian Stertz, Head of Division at the German Federal Ministry of Education and Research, added that if there is to be a move from the bottom-up process of pilot projects to a systematic change, a top-down agenda is necessary; defining criteria and the lessons and elements of successful pilots should be integrated in the reform agenda. Pilot projects have very different incentives and opportunities. He reminded the participants that not all of the new pilot projects correspond to a dual VET system or reflect the core principles. It has to be ensured that best practices are also sustainable in a wider setting and that they can contribute to systemic reforms. Mr Stertz suggested using the core principles of a dual system for the selection of beacon projects in China. Defining the core principles that characterise a Chinese dual vocational education system is an issue being addressed in the bilateral working group. Furthermore, it is important for China to gain consensus on these principles, which is achieved in Germany for instance through roundtables including all principal stakeholders. Roundtables have even been used to define how the core principles of the German VET system can be presented in international cooperation in VET.

From the perspective of a vocational school, **Mr Wang Rongsan**, Vice-President of the Dongying Technician College, added that he appreciated the strong political will and ambition to further vocational education in China. This was very encouraging for his work in vocational education. The same was true for Sino-German cooperation, which brought inspiration and new ideas to the schools' work. Despite the very positive general trend, Mr Wang reminded participants that there were still many challenges ahead that will demand persistence if real change is to be achieved; he named the persistently low reputation of vocational education and training in China as one example.

All four panellists agreed that Sino-German cooperation has been very fruitful, trustful and beneficial for both countries up until this point. When continuing the cooperation, mutual understanding of what the other side has to offer and the specific challenges they face was important. Therefore, sharing of experiences, and discussion of challenges faced in developing new solutions at the Sino-German dialogue forum provided an excellent basis for continued Sino-German cooperation in VET.



Closing Remarks

Mr Lu Zhenyu, Deputy Director, Ministry of Finance, P. R. China

In his closing remarks, **Mr Lu Zhenyu** from the Ministry of Finance highlighted the importance of exchange and open debate, as in the example of the Sino-German dialogue forum, in order to foster better understanding of Sino-German cooperation in VET and develop a common vision for successful future cooperation. An open and informed dialogue has also proven to be helpful for both partners in generating new ideas for Sino-German cooperation.

Mr Lu encouraged both partners to continue to improve the efficiency and quality of their joint projects and to enrich the cooperation with even more profound expertise. More specifically, he recommended that the scope of the Sino-German finance cooperation platform, which currently focuses on

equipment imports and school construction, could be broadened to cover the introduction of advanced concepts and ideas from the German VET system. During the project implementation phase, communication and information exchange could also be more effective – which he argued were critical to the success of a project. Finally, he expressed his hope that in reforming China's educational policy, both sides would take the opportunity to expand their mutually beneficial cooperation.

In conclusion, today's forum provided a very good platform for VET stakeholders to talk to each other and encourage the advancement of VET in China, and Mr Lu expressed his gratitude to all German partners, the Chinese Ministry of Education and all other colleagues for making the dialogue forum a success.



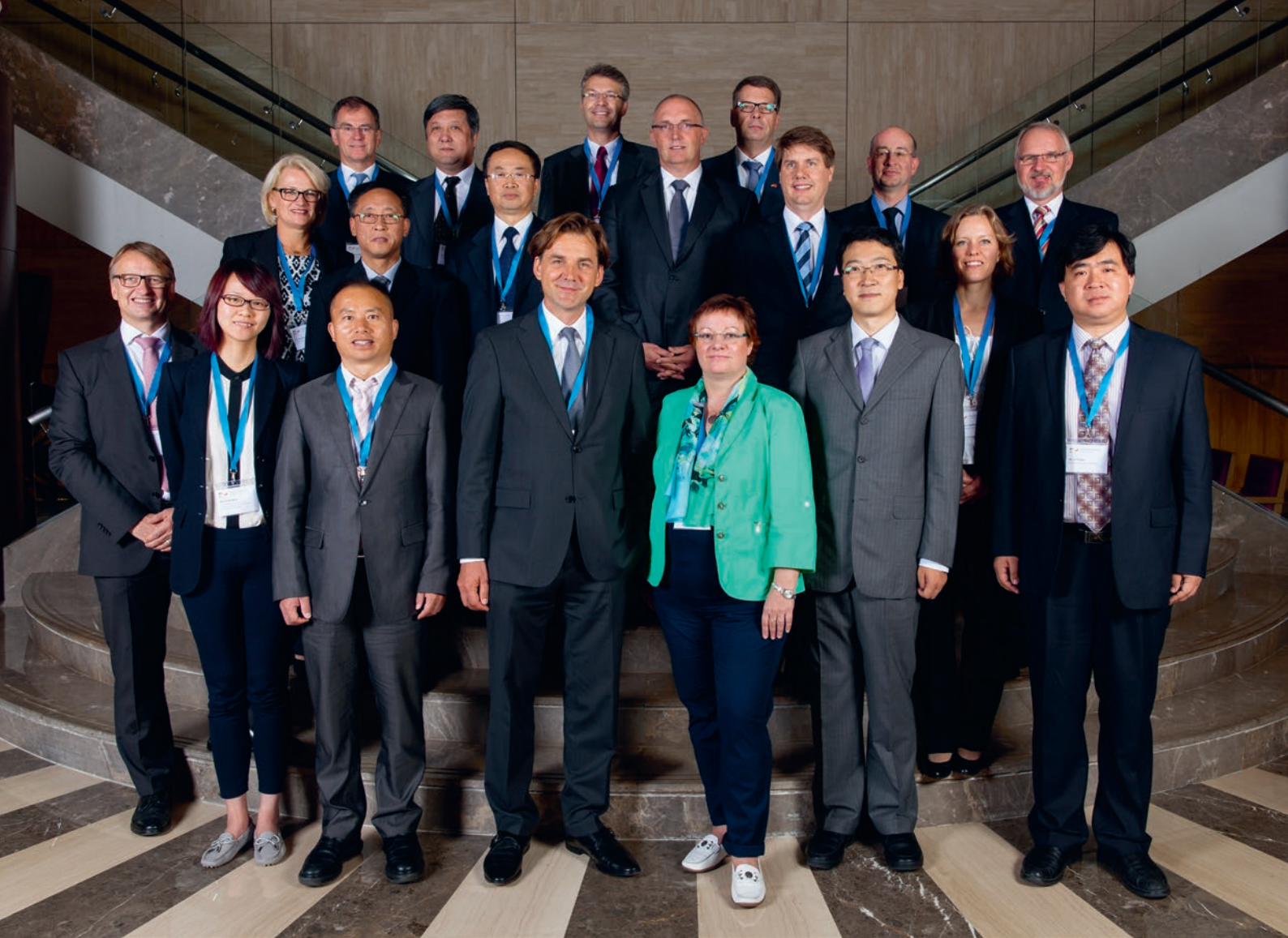
Ms Ulrike Lassmann, Country Director, KfW Development Bank

As the final speaker of the day, **Ms Ulrike Lassmann**, the newly appointed director of the Beijing office of the KfW Development Bank, explained that the Sino-German dialogue forum has developed into a fixed event, funded by the BMZ and organised in close cooperation with the Chinese MoF. With 250 participants, this year's forum had a record attendance, proving that this forum is seen as a great platform for discussion and the exchange of knowledge and practical experience. This year's topic addressed the challenges being faced in China as are experienced in daily life. Indeed, the importance of qualified personnel in a dynamic economy that is also facing huge challenges in a globalised world is more than obvious. It is central for both individual development and that of the society as a whole.

Summarising the discussions of the day, Ms Lassmann said that continuous exchange with the private employment sector is crucial if high-quality vocational education is to be maintained, and if it is to be capable of combining practical and theoretical knowledge. Based on Germany's long standing experience with the dual vocational system, German Financial and Technical Cooperation have supported the introduction and further development of VET in China.

The conference provided an opportunity to learn from best practice examples and to talk about the importance of diligent preparation and how to build up strong and efficient institutions. It became clear that good preparation is essential, but that it is at the same time vital to keep political frameworks and changes within industry in mind. Additionally, teachers need good training and curricula need to be set up very carefully. Training programmes should also cover both technical skills and capacity building, ensuring that graduates meet the demands of the employment market.

Despite the very positive track record of Sino-German cooperation in the field of VET, Ms Lassmann pointed out that there was still room for improvement and that the development of interconnected issues like urbanisation, rural-urban discrepancies and the employment sector in general called for constant adjustments and refinements. Still, positive outcomes from Sino-German cooperation, as highlighted by this year's forum, provided more than enough motivation and inspiration to continue and extend the partnership. Ms Lassmann thanked Chinese partners from MoF and MoE and the German ministries BMZ and BMBF for making this forum possible.



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