WORLDSKILLS LEIPZIG 2013 CONFERENCE PROGRAM

GLOBAL SKILLS MARKETPLACE

DISCOVER SKILLS UNLIMITED

worldskills Leipzig2013

Presented by SAMSUNG

Abstracts

The Global Skills Marketplace (GSM) is the international forum where WorldSkills Members and guests are invited to "Discover Skills Unlimited". It takes place in the Congress Center (CCL) on Friday, 5 July, from 10am to 4pm, in five different topic related seminar sessions. This specific seminar series aims to demonstrate the broad spectrum of current developments in vocational and education training worldwide and to share successful best practice examples.

The GSM is a series of interactive and engaging 45-minute seminars that will run throughout the day.

GSM sessions are dedicated to global skills issues and are offered as part of the overall WorldSkills Leipzig 2013 Conference Program – an international conference and seminar programme that will bring together leaders from around the world to network, share best practices and learn from others.

In the following descriptions you will find further information on each presentation.
(for up-to-date information please visit www.worldskillsconference.com)

Cisco NetSpace – a new dimension of interactive learning
Cisco Systems, Laura Quintana
Learning platforms have made incremental steps over the last two decades. With the introduction of NetSpace the Cisco Networking Academy enters a new era of interactive teaching. It was recently made available globally to more than 10,000 Academies and one million students. The platform provides cutting edge technology for virtual classroom learning and is open for content from third parties. NetSpace integrates learning material for teachers and students, simulation tools, serious games and interaction. New forms of social learning inside and outside the classroom are made available for many partners and students.

The presentation will demonstrate central features of the learning platform and explain the Networking Academy as a partnership program for vocational training schools. In an interactive segment of the session the audience will have the chance to explore the online learning platform.

Future Skills – a view from industry. The impact of change in market trends, economics, technology and industry practices 3M, Autodesk, Cisco, Festo, Fluke, Lincoln Electric, Saint-Gobain and Siemens
Market dynamics, technology, changing industry practices and standards, together with expectations of a new generation of workers, is driving significant change in the work environment and in workforce education, hiring and the actual job function. Reaction to those changes must involve all stakeholders - business, education and all levels of government - including public/private partnerships.

Relating this change to selected skill and industry sectors – Construction & Building Technology; Manufacturing & Engineering; Information & Communications Technology and Creative Arts – industry will discuss the need for improved productivity tied to business metrics, government economic policy and a suitably skilled workforce.

That workforce must adapt to – new technology and tools; training in new skills and a wider set of soft skills; cross-functional work teams; data collection and interpretation, and online delivery of training and support via portable devices. Traditional trades will need to learn new skills while experienced workers still contribute and help train the next generation.

Growth in new and emerging markets relies on having an available, properly trained workforce. Worker mobility and skill portability are critical in early market expansion, when a local workforce is not available. That mobility also requires we address recognition of qualifications and industry certifications across borders, regions and the world.

Tradition and Future – VET in Hong Kong, a New Perspective Vocational Training Council, Carrie Yau

As the Hong Kong economy had experienced several rounds of structural changes during the past 30 years, the vocational education and training (VET) systems in Hong Kong had also undergone much transformation throughout the same period. In particular, modern VET in Hong Kong, which started to take root in mid-2000s, has gradually evolved through a series of well-planned, pro-active and concerted efforts masterminded by the Vocational Training Council (VTC) of Hong Kong.

VTC turned out a quarter of a million trainees per year to meet industries' need at the craftsman, technician and technologist level. Riding on a conceptual framework of VET principles, VTC aims to solve the imminent labour mismatch problem, enhance Hong Kong's manpower competitiveness as well as extend its presence as a VET pioneer/leader in the regional context.

Modern VET in Hong Kong operates hypothetically on three structural building blocks, viz., the system of qualification standards, the collaborated model of VET assessment and the integrated model of VET delivery. The system of qualification standards mainly comprises the Qualification Framework (QF) benchmarked against international standards and the Specifications of Competency Standard developed and recognized by local industries. The collaborative VET model is actualized through various initiatives such as the "one-examination-multiple-certifications" scheme as well as the "one-course-dual-qualifications" system, which enable practitioners' qualifications to be recognized and certified in Mainland China and overseas hence realizing portability of qualifications at both national and international level.

The integrated VET model combines on-the-job training at the workplace and off-the-job vocational education at the campus. Together with the process of "workplace recognition", a trainee undergoes an "integrated" package of training and attains one total and integrated qualification under an increasingly popular "earn and learn" mode of VET. It helps trainees to master the required practical and vocational competencies through workplace training effectively while at the same time acquire the corresponding qualifications recognizable by the industry.

International Standards – Global Partnerships

North Warwickshire and Hinckley College, Dr. Sally Messenger & Charles Anderson, British Council, Julia Smith, RMIT, Helen Smith, British Council/British Embassy China, Kathleen Zhong

This session will provide an insight into three projects with the common theme of 'working in partnership to develop international standards'.

In the UK, at North Warwickshire & Hinckley College, a small team is undertaking a government funded project (Skills Funding Agency) to identify the high level standards and assessment contained within the model of the WorldSkills Competition (WSC). Working with the WorldSkills International (WSI) community the team has facilitated draft Skill Standards Specifications which the UK hopes can also be adapted to form a potential future platform for teaching, learning and qualifications, including apprenticeship programmes, in the UK. Part two of the project will focus on transferring aspects of the WorldSkills model across ten skills.

In Australia RMIT has a strong track record in supporting WSI through the Models of Vocational Excellence (MoVE) research and related projects. Now in conjunction with partner institutions and industry it aims to transfer the WSC model for standards and assessment to TVET practice in Victoria, Australia.

The China/UK Project stems from two Memoranda of Understanding between the Ministry of Education (MoE) and the Ministry of Human Resources and Social Security (MoHRSS) in China and the Department of Business, Innovation and Skills (BIS) in the UK. The partnership with MoHRSS has created eight China/UK college partnerships, together with a series of Roadshows across China to encourage the use of the WSC standard and associated training and development programmes as an aid to excellence in Chinese TVET.

Vocational education, new technologies and new approaches to teaching and learning City & Guilds Centre for Skills Development, Charlynne Pullen

In 2009, the Institute for Learning surveyed its members (UK and international) on the use of new technologies to support teaching and learning. The survey provided a snapshot of the many different ways in which new technologies are currently being used. Whilst the majority (60%) stated they felt confident with new technologies with more than half using either video, digital technology or interactive tools in their teaching. Confidence with using new technologies was higher for those under 30 than for other age groups. Just over half of the respondents called for more training in how to use new technologies.

New research conducted by the City & Guilds Centre for Skills Development (How to teach vocational education: a theory of vocational pedagogy, December 2012) argues that, to ensure learners are equipped with the skills employers need it is important to recognise that there are different types of vocational education and this has clear implications for how vocational education is taught.

The seminar will explore: The ways in which new technologies are currently being used to support teaching and learning in vocational education and some of the challenges currently faced by practitioners, desired learner outcomes, as well as the implications for developing teaching and learning strategies and the importance of context.

Social learning with design probes: Scaffolding shared learning about the future between design engineers and users Utrecht University of Applied Sciences, Dr. Remko van der Lugt

The main focus of this presentation will be on how engineering design students can learn about the possible implications of their design efforts in a future world, by shaping possible futures and then engage users to reflect on these future perspectives.

Engineers develop many new products and systems, most of which are bound to fail as they are not sensitive to the context and needs of the people that are going to have to live with these products. At the same time, we cannot just 'ask' people what they want, as people find it difficult to reflect and interpret what isn't there yet.

We propose using 'design probes' as a means to scaffold a social learning process between engineering designers and users. Such design probes are prototypes of plausible future products. These prototypes function primarily as catalyzers in the learning process. By discussing these prototypes, users and design students learn together about the current and future needs and desires of their prospective users.

One area in which this is particularly relevant is the transition toward sustainable energy. This is a complex issue that is going to change the world of people dramatically, so refelecting on the present use of energy does not sufficiently inform the design process.

We will present a project in which we used this approach to explore how people will experience balancing their energy consumption with the energy available from local sources.

What is a skill? WorldSkills France, Laurence Gates, WorldSkills UK, Eugene Incerti MBE
In 2007, the carpentry skill was put on notice by WorldSkills International, as not enough countries were taking part in the competition. To save the skill from disappearing from the WorldSkills Competition, a thorough reworking of the technical description was undertaken, which resulted in substantial changes to the test project. As a result of this work, more countries were able to register Competitors to this skill, as it again reflected the needs of their respective industries and the training given to their Competitors in their national training programs. In 2011, the same happened in the stonemasonry skill. In some other cases, the names of skills have to be changed to keep up with developments in the industry.

As can be seen through the examples of carpentry and stonemasonry, the WorldSkills Competition is a mirror of what happens in skills worldwide: skills and the trade they represent evolve over time, whilst some simply disappear and new skills appear in the industry. Some skills also have to merge in order to survive.

Are these new skills really representative of new trades or just a passing phase? How do you actually define a trade? How do they evolve over time?

WorldSkills France and WorldSkills UK propose to have a closer look at how a skill/trade can be defined, and how skills and the trades they represent evolve over time.

Enhancing the attractiveness of VET by means of skills competitions; reducing qualification cycle times; proven best practice models WorldSkills Germany, Danny Gauch, Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), Michaela Opfermann-Gärtner
Reducing Qualification Cycle times: Combining the dual system approach with innovations and latest technology skills competititons taking into consideration labor market demand and educational supply. Change of technology & methods versus labor market supply.

Session includes best practice partnership example: GIZ VET Programme Southcacasous & WorldSkills Germany skills competitions help set-up WorldSkills Georgia and WorldSkills Armenia in less then one year (2012). Both Teams are already competing WorldSkills Leipzig 2013.

The following items are key issues on the way to skills competitions: cooperation between industry and government (dual system approach), change of technology versus continous identifcation of educational change, investment in education versus return on investment, continous identifcation of international skills requirments versus international benchmarking and the importance of recognitition & networking.

The District of Tomorrow; a European real life living lab Zuyd University of Applied Sciences, Ludo Kockelkorn
The District of Tomorrow is an innovative programme of Zuyd University in which educational institutions, researchers, businesses, and public authorities join together to create an exciting environment for the transition to a

sustainable built environment at the European Science and Business Park Avantis in Heerlen (NL) / Aachen (D).

Four buildings, each year more ambitious than the previous one in terms of energy producing and sustainability up to 100% made of renewable and recycled materials used or partly grown in the garden. The (small) district itself, should be 0-energy as well and produce and clean its own water. Together developing a 0-impact district, and a learning and research environment for the students, market stakeholders and the region together.

This project is part of a transition programme for the region, to cope with climate change, fossil fuels depletion and resource scarcity. It becomes very special due to the fact that students design the projects and is constructed by pupils of construction schools. The professional market is involved by helping constructing the projects, and research for innovative products and management .

The European Real Life Learning Labs Alliances (EURL3A) is a EU project to strengthen these kind of programs with Czech, Solvenian and other partners.

Redefining the Welding Classroom through American Welding Online American Welding Society (AWS), David Hernandez

For decades the art of welding has been taught in the traditional classroom setting, with teachers and students interacting in a shared space. Technological advancements have allowed for many of these barriers to be eliminated, expanding the classroom to the outside world. This redefining of traditional spaces also involves a redefining of traditional roles. The role of the teacher is changing from that of a sage to that of a guide.

This presentation will introduce educators to the new AWS global welding community American Welding Online and demonstrate the advancements made to meet its core competency: making welding education accessible to anyone, anywhere and at any time. American Welding Online provides learners and teachers with tools facilitating virtual, distant, social and informal learning.

This presentation will consist of a theoretical discussion based on providing more relevant education to new generations of learners utilizing the tools and technologies that integrate into their everyday lives, as well as a variety of product demonstrations based on the American Welding Online catalogue. As well as a group activity to illustrate how these types of tools can be integrated into any curriculum with the purpose of engaging students.

Export Hit German Dual System – its Successful Implementation in China Festo, Stefan Dietl

This session will present and explain - against the background of the development of the Chinese economy and market requirements - how Festo is currently implementing the German Dual System of TVET in its Chinese production plant in Jinan.

The audience will learn about the requirements on-site and planning of the concept. They will be able to share knowledge about the actual set-up of the training facilities as well as the co-operation with schools and colleges and the possibilities of recruiting suitable trainees. As Festo is in the process of implementing the German Dual System of TVET (launched in 2010) the presentation is almost a real-time experience where the audience can share sucessful achievements as well as pitfalls.

JOBSTARTER – Vocational Education and Training for the future JOBSTARTER-program-office at BIBB, Guido Kirst

The German Economy (more than 99% small and medium-sized enterprises) seems to have succeeded in overcoming the European Economic Crisis well:
The number of employed rises, the rate of unemployment is on a comparatively low level and also the unemployment amongst young people is as low as in no other country of the EU.

But with the economic growth and the technological development also the demands on companies and employees rise. Companies need more highly qualified staff. This leads to a demand on skilled workers that, in some regions and branches, cannot be currently covered today. This slows down the economic growth and is an existential problem for some branches. Germany´s demographic development will intensify it.

One approach to face this situation in the medium and long-term is to convince companies of the purpose of VET. Every year several hundred thousands of young people pass through the German VET-system and get a modern, high quality education. At the same time the training companies get well qualified skilled workers that fit perfectly to their requirements, know the company´s processes and operational sequences and even contribute to the adding value of the company already during their apprenticeship.

The Funding-programme JOBSTARTER supports SMEs in terms of VET. It funds regional projects that offer free support and services, improve the regional VET-structures and test new forms of VET in cooperation with local stakeholders.

Exporting the German dual TVET model – challenges and opportunities of a German mining company doing business in Vietnam and Chile

MIBRAG Consulting International, Heike Christoph

The lignite mining company MIBRAG was incorporated in 1994 and has been one of Germany's top three lignite producers ever since. Out of the company's approximate 2,000 staff, 150 are trainees. The company boasts high standards in occupational safety, productivity and environmental protection which are largely attributed to continuing training of managerial and technical staff and the company-owned training facility for qualifying young skilled labour.

For more than ten years, MIBRAG has been successfully internationalizing its comprehensive expertise in mining and training through its subsidiary MIBRAG Consulting International.

In the light of the current global economic developments and the continuously increasing demand for highly qualified human resources, the company has extended its current portfolio with a view to "Resourcing the Future".

The presentation will focus on two international projects carried out in Vietnam and Chile in the field of TVET. Both countries are lacking qualified skilled labour and a TVET system which integrates practical training. The frame conditions in terms of state-of-the-art technology, labour organization as well as the general cultural mind-sets, however, are fairly different and constitute major challenges for the MIBRAG experts. Both challenges and applicable approaches shall be addressed and shared with the audience. MIBRAG's experience shows that it is inevitable to adjust to local conditions and to develop training even beyond existing German TVET standards in order to remain competitive with other TVET systems in the world.

Excellence and Technology and Didactic Solutions

Lucas-Nülle, Marc Woerner

The knowledge society is a cornerstone for health and wealth. We are in one of the biggest transformation processes from the industrial age to the knowledge age. In the center, stands the transformation from knowledge to value. In the future, whoever has the best educated engineers,technicians or skilled workers will have the competitive advantage. At the end, the best implemented education system is the base of the future health and wealth.

The technology possibilities are given to optimize the education system in a more effective and efficient way. The main challenge is to integrate the relevant learning processes with the state of the art technology all under the objective to reach the highest learning curve with minimized total cost of owner ship.

Comprehensive solutions to maximize learning speed are: managing complexity, individual learning, practical skills, solving problems through an understanding of systems, latest multimedia technology, interaction between training systems and real industrial equipment, assessment of acquired skills and integration of learning processes.

Key success factors for international cooperation in the field of Vocational Education and Training

German Federal Foreign Office, Heiko Schwarz

Vocational Education and Training worldwide is in great demand. In this context many countries are especially interested in the German Dual Training System.

What is the Strategy of the German Federal Government regarding international cooperation on VET? What does the Federal Foreign Office do in this area - and why is it involved? What are success factors for international cooperation?

"Greening of Curricula": Green Skills in Swiss VET Programmes

Swiss Federal Institute for Vocational Education and Training (SFIVET), Eva Heinimann

Social, economic and technical changes are the main factors influencing the development of occupations. In recent years, environmental aspects have also become increasingly important. Examples include general construction workers who are called upon to assemble solar power systems, bakers who use waste heat to fire up their ovens and gardeners who advise their customers in the proper use of fertilizers: many professionals now-a-days are confronted with "cleantech" in their day-to-day work and must therefore acquire the corresponding knowledge and skills.

How can green skills be incorporated in VET programmes? SFIVET has been commissioned by the Confederation to conduct a comprehensive study on how green skills are interwoven and implemented in VET programmes.

Analysis of over 200 training plans enable us to identify green skills that are already being imparted in the training content of each VET programme and determine potential cleantech content that may be added. Interviews with representatives of professional organizations responsible for selected occupations as well as an online survey of 700 companies provide an in-depth understanding of the importance given to and progress made towards green skills training objectives.

In the seminar study findings will be presented along with two specific examples illustrating how green skills may be included in the training plans of VET programmes.

Promising Practices from UNESCO's global UNEVOC Network: Innovative use of ICT for improving access and quality of vocational training in Brazil, the Philippines and Canada UNESCO-UNEVOC with UNEVOC Network members from Brazil, Philippines, Canada: Dr. Shyamal Majumdar (UNESCO-UNEVOC), Max Ehlers (UNESCO-UNEVOC), Sonia Ana Leszczynski (UTFPR), Maria Susan P. Dela Rama (TESDA)
Promoting learning for the world of work.
That is the aim of the UNEVOC Network of Technical and Vocational Education and Training (TVET) institutions. The UNEVOC Network is an exclusive global platform with the aim to further mainstream South-South and North-South-South cooperation. The Network is made up of UNEVOC Centres, which are established in TVET institutions in UNESCO Member States and serve as focal points in the provision of services for international and regional cooperation in TVET. By collaborating internationally we intend to improve TVET worldwide by sharing promising practices. The hub of the Network is the UNESCO-UNEVOC International Centre, located in Bonn, Germany.

In this session we bring together representatives from UNEVOC Centres from three different continents, and from developing, as well as highly developed countries. We intend to showcase examples of the effective use of Information and Communication Technology (ICT) in education and training in these different contexts. We will see whether and how approaches differ. Do the promises of new Information and Communication Technologies hold true? What pre-conditions must be met for effective digital learning? How can not only access be improved, but also the quality of teaching and training?

Development of ICT based teaching and learning media: "Global Campus 21" as an effective digital tool for online learning: Examples from Indonesia and Laos UNESCO-UNEVOC in collaboration with the UNEVOC Centre Magdeburg "TVET for Sustainable Development": Johannes Fleischle (UNEVOC Centre Magdeburg (GIZ)), Bakti Gunawan (P4TK), Hardianto Hardianto (STTT), Khamnothammackak Vixayher (IVETS)
Capacity building by improving skills education for the world of work in the context of North-South-South cooperation.

The UNEVOC Centre "TVET for sustainable development" in Magdeburg is an important actor in the global UNEVOC Network. Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), GmbH, Otto-von-Guericke University Magdeburg and Fraunhofer Institute for Factory Operation and Automation. Through GIZ International Leadership Training programmes like "Media Development in TVET" and "Master Trainer in TVET", participants from Laos, Vietnam and Indonesia will be empowered to become familiar with and use digital tools like Virtual Classrooms and Digital Learning Platforms (e.g. Global Campus21) to develop blended learning sessions, design curricula and develop modern training materials like video tutorials or e-Learning modules according to their specific requirements and for their TVET schools . Participants of the "Master Trainer in TVET" programme from Vietnam, Indonesia and Laos will share their experiences in the "ILT Master Trainer in TVET" their plans and experiences in developing modern curricula and training materials as well as their function as multipliers in the context of training the trainers, and improving the quality of learning in TVET school.

Industrial robots in factory automation – Global trend, local friend Mitsubishi Electric Europe, Jan-Philipp Liersch
Since more than 30 years robots are used in industrial automation. Their development from a simple manipulating machine changed during the years to a high dynamic and full flexible mechatronic system. Most of these changes have been driven in parallel to boost the

development for IT-Systems. Precision, speed, flexibility and simulative planning are needed to fulfill the exceeding demands of industries.

Integrating a robot into an application now-a-days can easily be realized. Programming and connecting the system to sensors and other peripheral devices is as easy as connecting hardware to a PC. But there is still a distance to robots and human-like machines that also differs from country to country and also by the educational level. How can we improve the thinking about robots globally and what is the easiest way to bring this knowledge to pupils and sensitize people towards robots? What can be done by development and which opportunities need to be caught during early education?

The GSM schedule is available on www.worldskillsconference.com

Further key facts on:
Global Skills Marketplace
"Discover Skills Unlimited"

With the GSM accreditation, you participate at your choosen seminars and the Networking Session. You have access to the conference center (CCL) and WorldSkills Leipzig 2013's main event, the 46 skill competitions, Competition on Friday, 5 July.

Seminar presentations and discussions will be in English.

Friday, 5 July
Schedule seminar sessions:
Session 1: 10:00am - 10:45am
Session 2: 11:00am - 11:45am
Session 3: 1:00pm - 1:45pm
Session 4: 2:00pm - 2:45pm
Networking session:
3:00pm - 4:00pm

Registration fee
Half Day: two seminar sessions + networking session
30,00 € (incl. VAT) / per person

Full Day: four seminar sessions + networking session
45,00 € (incl. VAT) / per person

If you would like to register a group please send your request to conference@worldskills.org for a group registration form.

Please note: Teachers are invited to participate.
The Global Skills Marketplace will be acknowledged as further teacher training.

For further information, schedule, and fee-based registration please visit www.worldskillsconference.com.