



issa

INTERNATIONAL SOCIAL SECURITY ASSOCIATION

Section on Prevention in the Mining Industry

NEWSLETTER | # 11 | May 2018

VISION ZERO

For a world of work
without accidents, diseases or harm



www.visionzero.glo

SEVEN GOLDEN RULES NOW GLOBAL

PAGE 2

INTERVIEW WITH ISSA MINING'S NEW VICE PRESIDENTS

PAGE 14

THAILAND IN VISION ZERO POLE POSITION

PAGE 19



From mining to all sectors: VISION ZERO and the 7 Golden Rules. Worldwide!

The XXI World Congress on Safety and Health at Work in Singapore 2017 proved to be a true milestone for Vision Zero and the Seven Golden Rules, highlighted in literally every keynote. Singapore demonstrated impressively that the country was the ideal host, showing a true commitment by experts and the industry alike. Businesses in Singapore proved how serious health

and safety at work are taken in all facets.

With impulses from the International Labour Organization (ILO), the International Social Security Association (ISSA) and Singapore's Ministry of Manpower, Congress President Ho Siong Hin created an event the delegates will never forget.

In the end, every delegate was convinced that Vision Zero is definitely possible; the address of Dr William Tan would have ultimately made the last person in doubt realize this. The Neuroscientist, physician, marathon finisher and Paralympic athlete told his personal story of mastering challenges and seizing opportunities where others would see problem: In his words, "I-m-possible". Singapore could not have concluded with a better final chord.



"See opportunities when others see problems," recommended physician, neuroscientist and Paralympic William Tan.



VISION ZERO has arrived on the international stage – ISSA’s new prevention strategy was visible in every facet of the congress and part of every keynote. VISION ZERO and the 7 Golden Rules found a huge support by all present international key stakeholders of prevention.

Vision Zero – ISSA launches global campaign for zero accidents, diseases and harm at work

The ISSA launched its worldwide prevention strategy in a first ever global ISSA campaign to improve safety, health and wellbeing at work. ISSA’s Vision Zero prevention strategy and the “Seven Golden Rules” are an adaption of ISSA Mining, now made available to all sectors of industry. ISSA’s global approach aims to engage companies worldwide to systematically cut down on occupational accidents and diseases by investing in a healthy and motivated workforce. Is a world without accidents, diseases or harm at work possible? “Yes” says the

not bad luck or predetermined but has specific causes” says ISSA President Dr Joachim Breuer. “That’s why all occupational accidents and diseases are preventable”.

This objective can be achieved by integrating prevention systematically in all aspects of business and by going beyond the classical safety issues. “While it is important to further reduce accident risks we strongly believe that in today’s complex and demanding world of work, companies need to focus more on health risks including those that negatively influence people’s wellbeing” adds ISSA’s Secretary-General Mr. Hans-Horst Konkolewsky. “A workplace without



From mining to all sectors, now in seven languages: The guide to VISION ZERO for employers and managers

Seven Golden Rules: Now across sectors

To support a more systematic and integrated approach to prevention the campaign provides Vision Zero Companies and Partners with seven golden rules and practical checklists, as well as training material, published on the campaign website.

The seven golden rules have been developed in mining with prevention experts from companies, authorities and social partners and have been successful-

VISION ZERO

Safety.Health.Wellbeing.

ISSA at the XXI World Congress on Safety and Health at Work in Singapore 2017. “‘Vision Zero’ stands for the belief that any workplace accident or a disease is

accidents, diseases and harm is only possible if both the safety, health and wellbeing of people is properly looked after”.



Vision Zero ambassador Michael López-Algeria, former commander of the International Space station spoke about the importance of Vision Zero: "Vision Zero is a very effective strategy to ensure safety, health and wellbeing, in space as on Earth. [...] Risk assessment, preparation and training are key for a safe return to Earth. However, nothing can substitute good leadership and commitment to 'safety first.'

ly tested. Together with additional material they form a practical toolbox for companies to build a strong workplace prevention culture.

Prevention pays

Implementing the seven golden rules obviously represents an investment for companies – but one that pays off. International research by the ISSA on the return on investments shows that every dollar invested in safety and health generates a potential positive economic benefit of more than two dollars. "It is widely recognized that prevention pays and that a healthy and motivated workforce is critical to business performance. This is why many important companies have expressed a strong interest in joining the Vision Zero campaign." Mr Konkolewsky comments.

Businesses and institutions around the globe take action

The success of the Vision Zero strategy depends on the active participation by

international and national partner organizations to reach out to as many companies worldwide as possible. Positively, important partners such as WHO, US OSHA, Singapore Ministry of Manpower, US Department of Labor - Bureau of International Labor Affairs (ILAB) and prominent companies including Siemens, Rolls Royce, Keppel Offshore & Marine and Boehringer Ingelheim have already pledged their support.

Lars Hoffmann, Head of Safety at Siemens adds "Everyone should be able to rely on a safe working environment at all times so that they can return to their family and friends healthy and safe. Caring for people and the environment is a commitment that goes beyond profit. Siemens takes this social responsibility for occupational health and safety very seriously. Vision Zero starts with those who hold responsibility, but it can only become a living culture if everyone contributes."

Mr Konkolewsky expects that following the launch many companies, governments and OSH institutions and networks will join the campaign: "It is time for action and only together can we improve the safety, health and wellbeing of millions of people and turn Vision Zero into reality".

Renowned personalities have offered their support as Vision Zero Ambassadors. Mr. Michael López-Alegría, a former NASA astronaut and Commander of the International Space Station is one of the first: "Vision Zero is a very effective strategy to ensure safety, health and wellbeing, in space as well as on earth. Risk assessment, preparation and training are keys to return safely to the earth. But most important was my leadership and commitment to 'safety first'. That's why safety issues were part of any single decision I made in orbit and on the ground."

Next step towards the aim of "zero harm": Canada

The XXII World Congress on Safety and Health at Work will be hosted by Canada 2020.

LINK

.....
<http://www.visionzero.global>
<http://www.safety2017singapore.com>



Ho Siong Hin President of the XXI World Congress on Safety and Health at Work in Singapore 2017, welcomed 4,000 prevention experts from all over the world.



Answers to respond to VIZION ZERO from all over the world at ISSA Mining's Symposium

Mining Symposium at XXI World Congress on Safety and Health at Work

On 5 September 2017, nine international speakers shared their experience on implementing the measures as prescribed by the Seven Golden Rules in the Symposium "Management of OSH in the mining sector: Seven golden rules in mining".

No less than 34 contributions of an excellent quality were submitted from all over the world. With a total presentation time of 2 hours, the organizers at ISSA Mining opted to give as many submitters

as possible a chance to speak, resulting in nine presentations representing a large regional diversity. The speakers from all continents gave first-hand insight considering all facets of prevention and touching each one of the 7 Golden Rules.

Find the speakers' insights in the presentations available for download on ISSA Mining's website

www.issa.int/preventon-mining

All presentations are available for download at

<https://www.issa.int/en/web/event-248902-mining-symposium-at-xxi-world-congress-on-safety-and-health-at-work>



ISSA Mining President Ulrich Meesmann explained how the "7 Golden Rules", the key topic in Singapore, started in the mining industry.





Moderated by Helmut Ehnes, the Singapore mining symposium combined insight by...



... Mr Cristian Moraga, Mutual de Seguridad, Chile



... Joachim Löchte, RAG Aktiengesellschaft, Germany

The program

Symposium 03 at the XXI World Congress on Safety and Health at Work – Global Forum for Prevention 5 September 2017

OPENING ADDRESS:

VISION ZERO & 7 GOLDEN RULES – SUSTAINABLE MINING FOR PEOPLE
Ulrich Meesmann, President ISSA Mining

FOR GOOD PRACTICE OF LARGE RUSSIAN POTASH MINING COMPANY
Prof Grigorii Fainburg, Perm National Research Polytechnic University, Russian Federation

A MULTICOMPONENT WORKPLACE INTERVENTION FOR MENTAL HEALTH IN THE MINING INDUSTRY
Prof Carole James, University Of Newcastle, Australia

VISION ZERO: PRACTICAL APPLICATIONS OF THE 7 GOLDEN RULES
Mr. Cristian Moraga, Mutual de Seguridad, Chile

CRITICAL CONTROL MANAGEMENT IN THE MINING AND METALS INDUSTRY
Mr Mark Holmes, International Council on Mining and Metals (ICMM), United Kingdom

THE HUMAN FACTOR FRAMEWORK FOR MANAGING RISK IN EXTRACTIVE AND HIGH RISK INDUSTRIES
Mr. Leigh McMaster, Chamber of Mines of South Africa, South Africa

VISION ZERO – RAG'S WAY TO ZERO ACCIDENTS
Mr. Joachim Löchte, RAG Aktiengesellschaft, Germany

OCCUPATIONAL HEALTH AND SAFETY PHILOSOPHY VISIÓN ZERO AND WELLNESS PROGRAMS AT GRUPO PROGRESO
Dr Roberto Hermosilla, Cementos Progreso, S.A., Guatemala

MODERATED DIALOGUE SESSION & CLOSING
Mr. Helmut Ehnes, Secretary General ISSA Mining

THE EXPERIENCE OF APPLICATION OF OSH MS AND SEVEN GOLDEN RULES



Dr Roberto Hermosilla, Cementos Progreso, S.A., Guatemala



Leigh McMaster, Chamber of Mines of South Africa, South Africa



Mark Holmes, International Council on Mining and Metals (ICMM), United Kingdom



Prof Grigorii Fainburg, Perm National Research Polytechnic University, Russian Federation



Prof Carole James, University Of Newcastle, Australia

Poster presentations

Symposium 03 at the XXI World Congress on Safety and Health at Work – Global Forum for Prevention 5 September 2017

Application of Job Safety: Analysis and William Fine Methods to Identify and Control OHS Hazards in a Uranium Mine

Mehrzad Ebrahemzadih, Shahid Sadoughi University of Medical Sciences, Yazd, Iran

Safety Study of Safety Culture Matrix in a Marble Quarry

Mehmet Çobano lu, Ministry Of Labor and Social Security - General Directorate of Occupational Health and Safety, Turkey

Work-Disabling Musculoskeletal Pain in Chilean Copper Miners: A Cross-Sectional Study

Jose Mendez, CODELCO, Chile

The Role of Earthing For Preventing Of Electrical Accidents in Underground Mines

Ali Mozafari, Ministry Of Cooperatives, Labor and Social Welfare, Iran

New Approach in Turkish Mining "Vision Zero"

Ali Rıza Ergun, Ministry Of Labor and Social Security, Turkey

Effective and Safe Mining - The Integrated Approach Experience from the Czech Republic

Vladimir Budinsky, Sd Severoceske Doly A.S., Czech Republic

Assessment of Work Related Diseases and Risk Factors among Gem Miners in Sri Lanka

Shaluni Tissera, International Institute of Health Sciences, Sri Lanka

Safety Investigation of Personnel Tracking and Communication Systems in Underground Mines

Mehmet Eren Sökmen, Ministry Of Labor and Social Security - General Directorate of Occupational Health and Safety, Turkey

Vision Zero Training in Practice: A Tailored Example for Mining in Mongolia

Christian Bochmann, Institute for Work and Health (IAG) of the DGUV, Turkey

State of Accident in Working Situations in Mining: Ethics, Dialogue And Human

Jose Reginaldo Inacio, Nova Central Sindical De Trabalhadores – NCST, Brazil

VISION ZERO - Successful Risk Management Requires Sustainable Leadership

Wolfgang Bartsch, German social accident insurance institution for the raw materials and chemical industry, Germany

VISION ZERO - Best Practice: How to involve people and improve their competence in OSH

Kai Rabald, German social accident insurance institution for the raw materials and chemical industry, Germany

Conditions for a Safe Integration of New Workers in the Mining Sector

Elise Ledoux, Institut de Recherche Robert Sauvé en Santé et en Sécurité du Travail, Canada

Anti-Bribery and Corruption Laws and the OSH Profession: Everything You Need To Know

Norm Keith, Fasken Martineau DuMoulin LLP, Canada

Certified Occupational Safety and Health at AKW Ukrainian Kaolin Company – UKC

The Quarzwerke Group – Our Way from Local to Global Approach in OSH

Dr Hans-Peter Justen, Quarzwerke GmbH, Germany

Vision Zero on the go

A view from different perspectives in ISSA's Technical Session T1

ISSA's Technical Session T1, 4 September 2017, shed a light in Vision Zero from different perspectives: Those of companies, agencies, research, insurers and regulators. During the introduction, Moderator Walter Eichendorf, explained how Vision Zero evolved in road safety and described the history throughout the World Congresses. Mr Eichendorf introduced the role of the International Labour Organization, administrating the "Vision Zero Fund" and the role of the ISSA in implementing the strategy and reaching out to companies worldwide.

Mr Michael Lopez-Algeria, former commander of the International Space station spoke about the importance of Vision Zero in space:

"Vision Zero is a very effective strategy to ensure safety, health and wellbeing, in space as on Earth. As commander of the International Space Station, I was responsible for the safety of my crew. It was my prime objective to make sure that they were unharmed during our mission. Risk assessment, preparation and training are key for a safe return to Earth. However, nothing can substitute good leadership and commitment to 'safety first.' For this reason, safety concerns were at the core of every decision I made both in orbit and on the ground. I am delighted to be an ambassador of Vision Zero to raise awareness that all accidents and diseases are preventable."

The business perspective

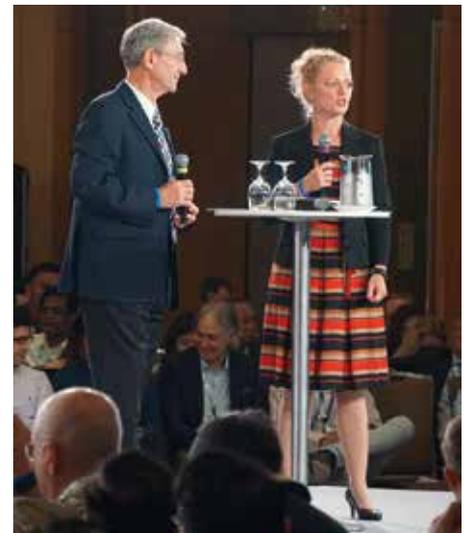
Mr Patrick Murphy, Senior HSE Business Executive of Origin Energy and Chairman of the Safety Institute of Australia, Australia, shared the keynote "Why companies should support Vision Zero". Three renowned business leaders who believe in Vision Zero explained their view on Golden Rule No 1, leadership, and on companies' success in reducing harm:

- Mr. Wong Chit Sieng, Chief Corporate Officer, Singapore Power,
- Mr. José Raúl González, Chief Executive Officer, Grupo Cementos Progreso, Guatemala and
- Mr. Brian Long, Group Head of Safety and Sustainability, Lendlease, Australia.

Mr Wong Chit Sieng explained Singapore Power's safety pledge: "Safety is our highest priority. Every life is precious. Every accident is avoidable. We uphold safe practices and strive for zero accident." Thousands of management walkabouts, safety inspections, safety meetings and individual safety goals laid the foundation for the impressive reduction in accident figures the enterprise achieved

Mr José Raúl González Merlo, CEO of Grupo Progreso, had a powerful message to share with the audience regarding accident statistics, having managed to reduce the number of accidents to an historic all low. The commitment of the board of directors and the top management played a vital role, including monthly visits to plants. Recognized by the certificate "Great Place to Work" repeatedly, three consecutive years "World's Most Ethical Company" and winners of the International Safety Award of the British Safety Council 2016 and 2017.

Mr. Brian Long, heading the Sustainability & Safety Branch of Lendlease, Australia, discussed his experiences with leadership



How qualification plays a vital role in prevention was shown by Mrs Shelly Frost, Director for strategic development at IOSH, UK.

and safety and health at work, leading to a continuous decrease in fatalities, with no more occurring since 2013.

Leadership has contributed to establish a safety culture (or zero harm culture). If somebody asked you to help them to set up a similar zero-harm culture in their company, what would you tell them? What should they do to succeed?

Mr Long stated six key lessons were learned:

- Inspire with a vision;
- Leader must have a felt and genuine commitment
- Focus on fatalities and potential fatalities
- Be willing to adapt as you go
- Leverage the skills and knowledge of a partner
- Always demonstrate humility and unease



As a central event of the World Congress combining different views on solutions towards VISION ZERO, the Technical Session 1 attracted a huge audience.



The mind behind the 7 Golden Rules: ISSA Mining's Helmut Ehnes (left) explained what motivation led to the concept that is gaining a vast momentum in Singapore.



What drives Singapore to the strong mindset in VISION ZERO? Congress President Er. Ho Siong Hin (left) explained.

The organizations perspective

The second group of Vision Zero supporters came from non-profit organisations, policy makers, researchers and accident insurers contributing to Vision Zero.

- Mr. Cristian Moraga Torres, General Director, Mutual for Safety CChC, Chile, represented social security institutions
- Mr. Cameron Mustard, President & Senior Scientist from the Institute for Work & Health Ontario, Canada, represented OSH Institutes
- Mr. Ho Siong Hin, Commissioner for Workplace Safety and Health at the Ministry of Manpower, Singapore, represented governments.

Mr. Cristian Moraga Torres explained how Mutual took Vision Zero as reference to improve the safety model as the rules are simple and clear and can be applied by almost any company regardless of size or economic activity.

Mr. Cameron Mustard showed how the Institute for Work & Health conducted a case study in Canada on the electrical utility sector, representing 50,000 workers. The injury frequency could be reduced from 1,100 to 390 over a ten year period, considering cases resulting in lost work time.

Er. Ho Siong Hin explained Singapore's strong motivation to support Vision Zero, as clearly visible in the 2017 World Congress.

Supporting Vision Zero – moving forward

The session "Supporting Vision Zero – moving forward" put the emphasis on the next steps of the Vision Zero Campaign. Mrs Shelly Frost, Director for strategic development at IOSH, UK, and Mr Helmut Ehnes, heading the prevention department of the German Social Accident Insurance Institution for the raw materials and chemical industry (BG RCI), explained

their views of Vision Zero. Both are board members of ISSA prevention sections and driving forces behind ISSA's new approach and material, including the Guide and seminars. Their outlook pointed to events in Thailand in Germany, in which regional launches of Vision Zero will follow in September and October. Helmut Ehnes how the VISION ZERO prevention strategy and its Seven Golden Rules started: While being asked for a talk on the occasion of Vietnam's National Safety Week in 2012, Ehnes aimed to explain the essentials of prevention, using a simple approach, easy phrasing, using common sense, to appeal to employers and managers as well, not only prevention experts. The audience's positive response as well as future experienced confirmed the approach works well.

The Technical Session ended with an impressive Vision Zero trailer, produced by ISSA Electricity and ISSA Mining (see ISSA Mining Newsletter #10 for a "behind the scenes" report).



Mutual de Seguridad's mandate is prevention and rehabilitation in Chile, including mining. 70,000 companies and 1.9 million insured persons are spanned by the insurer's work. General Director Cristian Moraga Torres shared the positive experience of adapting the 7 Golden Rules at a very early stage.



Mr. José Raúl González, CEO of ISSA Mining member Grupo Cementos Progreso, Guatemala (left) shared how his company achieved remarkable results in prevention with moderator Walter Eichendorf.



International Media Festival for Prevention Singapore 2017

Safety 'Oscars' awarded in Singapore

The International Media Festival for Prevention at the World Congress for Safety and Health at Work in Singapore attracted 235 entries from 38 countries, and nine entries - six films and three multimedia products - were selected for awards by international juries of media and prevention experts.

According to Martina Hesse-Spötter, Secretary General of the ISSA Electricity Section and responsible for the Festival: "The countries of origin were as diverse as the approaches of the producers." She added: "Films are much shorter today. Many films are no more than 60 seconds. And, we see much greater use of emotion in films and the impact of accidents not only on workers but also on their family, friends and work colleagues."

"Let's live safely"

Music and song are traditional, well-established forms of communication. Inspired by a song competition organized by the Workplace Safety and Health Council of Singapore, singer-songwriter Boon Hui Lu, with "Safety, Your Word Your Life" scooped another award at the Media Festival with her powerful vocal message.

"L'asthme d'Antoine le Boulanger" ("The asthma of Antoine the baker", France) received an award for its use of humor and direct communication. Antoine, a young baker, discovers the risks linked to his job and the significance of flour dust as a hazard in the artisanal baking. The jury was attracted by the engaging, light-hearted treatment, and the performance of Antoine.

The kitchen may be overflowing with tasty food but it is also filled with many hazards. In making their award to the film "OSH Master Chef II" (Hong Kong) the jury enjoyed the humor in the relationship between the Master Chef and his apprentice Billy; and the clarity and simplicity of the messages.

"Work accidents hurt your family the most"

"Shoelaces" (Singapore) used powerful emotion and the producer's skill to present a serious message in a short time without dialogue. In making a Special Award, the jury was impressed that the background music set the tone and the images were allowed to tell the story. Inspired by a true event, the film showed how accidents at work affect the family, and was part of a campaign in 2016 in support of 'Vision Zero'.

The jury also identified the growing influence and importance of social media and its ability to attract and reach out to a young audience. In making a

Special Award to the "#safe4life project" (Canada), the jury recognized the new and emerging world of the video blog, and appreciated Canadian 'vlogger' Michael Rizzi's unique style in communicating potential safety hazards to young workers.

Heat stress is a serious and significant hazard in the Gulf States, where workers in the oil, gas and construction sectors come from distant parts of the world with their own language, culture and understanding of risk. In making a Special Award to the film "The Heat is On" (United Arab Emirates), the jury applauded the effective use of animation and its ability to convey an important message without dialogue.

Multimedia wins too!

The first award winner in the multimedia competition was the e-learning application "Safety and Health with George and Hazel" (Singapore) produced by the WSH Council of Singapore. The jury felt that the animated presentation was clear and

The people behind the best out of 235 entries from 38 countries received acclaim in Singapore.



engaging, and successful in crossing language barriers.

A second award winner was the e-learning application "Balansguiden – om livet med jobbet" ("Balance Guide – life with work", Sweden) produced by Prevent. The guide was designed for people managing their own working hours and work environment to achieve a good work-life balance. The jury liked the approach, and the use of short questions and video sequences.

The third multimedia award winner was the game app "Rette Murphy" ("Save Murphy", Germany) produced by Verwaltungs-Berufsgenossenschaft (German Social Accident Insurance Institution for the administrative sector). Eight games featured sympathetic and humorous animations which corresponded to the eight hours of a working day and address hazards in the workplace to bring Murphy safely through the working day. The jury welcomed the fresh and playful approach

as a part of a safety campaign directed at young, male temporary workers.

Raising awareness and disseminating information

According to Martina Hesse-Spötter, "Visual media plays an important role in safety and health at work: It can reach out and address a large audience, and has the ability to overcome language and cultural barriers. Without good communications no prevention message will reach the workforce."

Background

Since 1990, the Festival has been organized by the ISSA Section for Electricity, Gas and Water. It takes place every three years in the framework of the World Congress for Safety and Health at Work. Originally, the Festival was solely devoted to films but since 1999, submissions of multimedia products have been included. Since

then, the ISSA Section on Information is a co-organizer of the Festival.

Watch the contributions online

All entries for the International Media Festival on Prevention 2017 can be viewed at

.....
www.mediainprevention.org

Organizers

ISSA Section for Electricity, Gas and Water:

.....
<https://www.issa.int/de/web/prevention-electricity>

ISSA Section on Information:

.....
<https://www.issa.int/de/web/prevention-information/about>

Future forms of work and impact on occupational safety and health

To discuss differences in the OSH balance among individual countries and sectors, experts met at a high-level event 3 September 2017. At the summit moderated by ICOH President Dr Jukka Takala, Ms Pirkko Mattiila, Minister of Social Affairs and Health Finland, shared the 100-year perspective of her country. Minister of State Mr Sam Tan, Ministry of Manpower and Ministry of Foreign Affairs Singapore, discussed the advancement of workplace safety and health in Singapore. ILO Director General Mr Guy Ryder looked into future forms of work in relation to ILO's "Safe Work" and their Centenary Initiative. The agenda of modernizing OSH legislation and policy in the European Union was introduced by Mr Micel Servoz, Head DG EMLOI, EU. Mr Sun Huashan, Vice Minister at the China State Administration of Work Safety, gave an overview of China's transition from agriculture to industry and service.

Refined statistics show increase in accidents and diseases

At the event, new figures were introduced, assembled by the ILO and the WHO. According to the latest estimates 2017, the yearly number of fatal work accidents increased to 380,500 compared to an estimated 341,373 determined in 2014. In the same

timeframe, the non-fatal accidents leading to at least four days of absence from work increased from 302 million to 374 million. The fatalities caused by work-related disease went up from 1.98 million per year in 2014 to 2.4 million per year 2017; the cases of occupational cancer account for 742,000 (666,000 in the 2014 figures).



ILO Director General Guy Ryder explained the latest figures in work-related accidents and disease worldwide, showing a vast need for improvement.



The Bangkok Strategy Workshop carried over the spirit of the international VISION ZERO launch in Singapore a few days earlier.

Strategy Workshop: How to align ISSA Mining's work?

Extending the VISION ZERO prevention strategy and the application of the "7 Golden Rules", strengthening alliances, open new access paths into the mining industry and increasing the number of ISSA Mining members including mining universities: These are the results of an ISSA Mining strategy workshop 11 September 2017, hosted in conjunction with the FIRST INTERNATIONAL THAILAND

VISION ZERO CONFERENCE, 12-13 September 2017 in Bangkok, Thailand (see pages 19 – 26).

New Board elected: Vice Presidents for North America and Africa

In parallel to the Strategy Workshop, ISSA Mining held its General Assembly including elections of the board.

While President Ulrich Meesmann, Vice Presidents Cristian Moraga, Peter Schrimpf, Doan Mau Diep, and Secretary General Helmut Ehnes were confirmed, Vic Pakalnis was voted Vice President North America and Leigh McMasters Vice President Africa. Read about the introduction and views of both new board members in the interviews on pages 14 and 15.



The new board members Vic Pakalnis (center) and Leigh McMasters (right) with Helmut Ehnes (left), Cristian Moraga (second left) and Ulrich Meesmann (second right).



The delegates discussed approaches to involve the matching stakeholders.

Program
ISSA Mining Strategy Workshop 2017
11. September 2017

9 a.m. – 3.30 p.m.

Welcome address and Opening

Ulrich Messmann
 ISSA Mining President
 Executive Board Member of the German Social Accident Insurance Institutions
 for the Non-Metals and Chemical Industry (BG RC)

Introduction of the Moderators

Wolfgang von Bichhofen
 International Consultant in Labour Protection
 for World Bank, ILO, EU
 Senior Technical Advisor to IRLI

Helmut Ehnas

Secretary General of ISSA Mining
 Director for Prevention of BG RC

Short Introduction of the Participants

**Timetable of ISSA Mining Activities
 in Bangkok and Structure of the Day**

Input: What did we achieve so far?

Helmut Ehnas

**Remember Malkammer –
 Results from the 1st Strategy Workshop**

Matthias Stenzel

**TOPIC 1: How can ISSA Mining increase
 its influence and visibility?**

- How to strengthen ISSA Mining in the regions / continents?
- How to find more members?
- Do we need other ISSA Mining products?
- Do we need new alliances and how can these become active?

**TOPIC 2: How can ISSA Mining spread
 VISION ZERO in mining industries globally?**

- What new activities should we establish or increase?
- What are the right motivational elements?
- Can we improve synergy developments?
- Do we need new VISION ZERO products / projects for mining?

TOPIC 3: What is our requirement or recommendation for VISION ZERO to ISSA and its Special Commission on Prevention?

- What are our expectations from ISSA?
- What can be done better by joint activities from all sections?
- How can we use the ISSA global structures?

**Summary – Conclusions –
 Work Plan for the Section**

**2ND ISSA MINING STRATEGY WORKSHOP
 IN BANGKOK, THAILAND**

Program
 11. September 2017, 9 a.m. – 3.30 p.m.

VISION ZERO
 Safety Health Wellbeing

issa International Social Accident Insurance
 Institute on Prevention in the Mining Industry



How to bring VISION ZERO on was part of the discussions at the 2nd ISSA Mining strategy workshop.

Interview with ISSA Mining's new Vice Presidents

At ISSA Mining's General Assembly 11 September 2017 in Bangkok, Thailand, the delegates unanimously voted for Vic Pakalnis and Leigh McMaster as new Vice Presidents for the regions North America and Africa. We talked to the new board members about their background and views.

Congratulations on your new role as an ISSA Mining Vice President! Could you tell us a little bit about yourself and your background?

Vic Pakalnis:

I was born on June 29th, 1950 in Northern Canada, a place called Malartic in the province of Quebec. It was a major gold mining center and it still is. My father was a mining engineer, my brother as well. I graduated with a B.Eng and M.Eng in Mining Engineering from McGill University in Montreal. As most mining people, I worked in various places in British Columbia, Quebec, Ontario. Kerr Addison Exploration for 3 summers, bank stability engineering at Iron Ore Company of Canada, Senior Ground Control Engineer at Falconbridge

Nickle Mines. Then I went to work for the Ministry of Labour in Ontario; I was Chief Mining Engineer, Director of Industrial Safety as well as a Regional Director in Ottawa. Then decided to try academics – taught at Queen's University in the School of Policy Studies – Policy Implementation and Occupational Health and Safety and then as Kinross Professor in Mining and Sustainability, I taught introduction to Mining and a 4th year and Master's course in Health and Safety in Mining Practice. In July 2012, I was appointed President and CEO of MIRARCO Mining Innovation in Sudbury. As well in 2016 I was appointed Associate Vice President Mining Innovation and Technology (LMIT). My son Peter lives in Ottawa and I'm still trying to get him into mining in some way. Hobbies: Philosophy, Mining History, Scotch, Travel.

Leigh McMaster:

I am a proud millennial born in the early 1980's in Johannesburg. I spent the first 4 years of my working career in the SME environment really finding my feet after completing my undergraduate degree at the University of Pretoria. I started my career in Health & Safety and Risk

Management in 2008 and have been in love with the discipline since then. I have completed qualifications in Industrial Psychology and Health & Safety which is partly why my main interest lies with the Human Factor in Occupational Safety & Risk.

Which role do health and safety play in your daily work?

Leigh McMaster:

I work for the South African Chamber of Mines which is the main employer organization for the South African mining industry. The Chamber of Mines represents 71 Member companies who are collectively responsible for over 90% of South Africa's mineral production. The Chamber has specialists in various disciplines responsible for industry wide policy and projects.

My main role as the behavioural specialist in the Chamber is to oversee all projects related to safety leadership and behavioural change, change management as well as specialist support to the technical disciplines related to Mining Engineering, Health & Hygiene. Some of the current projects that we are busy with includes a new innovative assessment technique and development framework for leadership, Critical control management and a longer-term people-centred approach to modernizing the SA mining industry.

Vic Pakalnis:

MIRARCO's mission is safe productive and sustainable mining so safety is always front and center. One of MIRARCO's Centers is in Mining Safety Research – we offer executive level course called Global Minerals Industry Risk Management and we've provided government with policy advice on



Vic Pakalnis is the new ISSA Mining VP for North America.

Technology and the Management of Change. We've undertaken research on Underground Diesel Emission Mitigation. Part of LMIT is the Center for Research in Occupational Safety and Health. They are doing breakthrough research on mental health in mining workplaces. MIRARCO-Laurentian has just partnered with the Northeastern University, Shenyang to establish the China Canada Deep Mining Research Center – one of our focus areas is Mining Safety.

You are connected to ISSA Mining for several years and experienced the development and spread of VISION ZERO and the 7 Golden Rules for Mining. What is your experience in your region? How do managers react when introduced to the concept?

Vic Pakalnis:

At our last ISSA Mining Conference in Thailand in September, I addressed Canada's approach to Mining Safety and the fit is perfect - Vision Zero is not just a dream but is reality for many companies and many jurisdictions. In Ontario – in Canada's largest mining jurisdiction – with 40 mines, we achieved zero fatalities in 2016. It can be done. Every country will have some differences in approaching the Road to zero but ISSA Mining was prepared to be flexible and Universal. Mining is a global industry – what happens in one corner of the world affects us all. Recall the Chilean Mine Rescue where 33 workers were saved – everyone was watching - more than watched the moon landing (probably more TVs today!) Proud moment for Chile and mining around the world.

Leigh McMaster:

The African region is somewhat still in its infancy with regards to the global vision zero program. There are however pockets, including individual organizations and country specific programmes that are well aligned with the objectives of vision zero and the principles of the 7 golden rules. The main objectives for the African region is to extend vision zero wider and share the tangible results amongst all members.

In Singapore, we saw a huge supportive feedback of international OSH experts when ISSA launched VISION ZERO and the 7 Golden Rules as a global strategy for all sectors of industry. What is your hope for this remarkable extension, and which potentials do you see for your region?

Vic Pakalnis:

ISSA took the good work that ISSA Mining did and adopted it for all sectors. Very courageous move but I think it was justified. Given how complicated and risky mining is, if Vision Zero works there, it can work anywhere. I was

asked to talk about Mining Safety to a group from the Health Care Sector – government, labour and industry representatives. In Ontario, their Lost Time injury frequency is twice that of mining. I went through the culture, technology, and practices in mining that can easily be adopted in Health Care if there was a will to do it. In mining engineering schools, Occupational Health and Safety is mandatory. Not so in Schools of Nursing or Schools of Medicine. Other sectors will have to adapt and manage the change that is inevitable and they will have the mining industry to look to for inspiration.

Leigh McMaster:

There is immense opportunity to share Health and Safety and Risk strategies and initiatives amongst different industries, especially those with similar risk profiles. The age is long gone where industries work on their own solutions for zero harm. The African Region is an ever-growing minerals jurisdiction and it is therefore imperative that the region employs technology and processes that is benchmarked to the best in the global minerals industry.



Leigh McMaster was voted Vice President for Africa.

Safety and Health unite miners from Canada and Germany

A two day event in Canada's mining capital Sudbury united mining professionals from both sides of the Atlantic. Professionals of the industry and research centered on safety and health, exchanging on insight in research and best practice in safe mining. The Mining Association of Canada and the Canadian German Chamber of Industry and Commerce joined ISSA Mining.

Sudbury is home to the largest integrated mining complex in the world. At the heart of Nickel mining, the Competence Centre for Mining and Mineral Resources ran the first German Canadian Workshop together with ISSA Mining and MIRARCO Mining Innovation (Sudbury). Taking place in the Auditorium at Laurentian University, Canada's youngest mining university, the workshop brought together around 40 German and Canadian experts primarily from the field of Health, Safety and Prevention in mining. The Canadian German Workshop "Challenges & New Developments for Safe, Productive & Sustainable Mining" in Sudbury was conducted 29 June 2017 at the Laurentian University.



"Zero' is without doubt ambitious, but there is no other way from an ethical point of view", was the message of Ulrich Meesmann's keynote.

How many fatalities are acceptable?

In the Plenary Session "State of the Art Practices for Health & Safety in Mining", ISSA Mining President Ulrich Meesmann explained how many successes throughout the world show that Vision Zero is not an illusion, including the examples of the innovation drivers around the Sudbury Basin.

He explained how formerly accepted risks are controlled today, and underlined that no other result than zero fatalities and zero severe accidents is ethically acceptable.

ISSA Mining Secretary Helmut Ehnes explained how the Seven Golden Rules for Safe and Healthy Mining systematically support companies in reaching the aim of zero harm.



"Today is all about health and safety. Safety is a core Canadian mining brand," stated MIRARCO's Vic Pakalnis.

Mining stakeholders connect

The workshop was an opportunity to evaluate not only best practices and benchmark frameworks for health and safety in both Germany and Canada but also to launch a longer term collaboration between Germany and Canada, and, more specifically, between the region of Greater Sudbury and the region of North Rhine-Westphalia. To that effect, a letter of Intent was signed between the two regions to officially kick off the cluster-to-cluster collaboration. In Germany, the North Rhine-Westphalia Network Mining Economy (NRW Netzwerk Bergbauwirtschaft) with its over 700 members, will be the main contact to foster collaboration with the region of



ISSA Mining was honored to welcome two new members: The Canadian German Chamber of Industry and Commerce, represented by Aarti Mona Soerensen (center), and the Mining Association of Canada (MAC), represented by President Pierre Gratton (second from right).

Sudbury, where the Sudbury Area Mining Supply and Service Association (SAMSSA) and the Greater Sudbury Development Corporation are going to be the main drivers to launch activities within the collaborative framework. NRW already extended an invitation for a Canadian delegation to visit Germany and the mining region of North Rhine-Westphalia in 2018.

Valuable new members

The Mining Association of Canada (MAC) joined ISSA Mining in a signing ceremony during the workshop. Thereby, MAC gets access to the worldwide network of ISSA Mining to promote its benchmark

Towards Sustainable Mining (TSM) framework, which was presented by Pierre Gratton, MAC’s president, in Sudbury. ISSA Mining, on the other hand, will be able to work more closely with Canada and introduce its “7 Golden Rules”-Framework to Canadian mining companies and start a dialogue on how zero harm can become a realistic goal in mining in Canada, and worldwide.

The Canadian German Chamber of Industry and Commerce became a member of ISSA Mining as well, bringing in its competence and connections for the benefit of miner’s health and the economic success of mines on both sides of the Atlantic.

Research collaboration

An agreement for closer collaboration could be reached between the Bergakademie Freiberg and Laurentian University. Prof. Helmut Mischo and Viktor Pakalnis were able to sign a Memorandum of Understanding the day after the workshop and are looking to establish a collaboration in research, student exchange, and experiential testing of equipment and technologies in underground test centers in Germany and Canada.



MAC President Pierre Gratton explained the role of safety in the “Towards Sustainable Mining” Network.

XV Latin American Congress of Occupational Health – ALSO 2017

When the Scientific Coordinator Dr Roberto Hermosilla invited to the XV Congreso Latinoamericano de Salud Ocupacional in Antigua Guatemala, ISSA Mining gladly joined its member of the ISSA Mining Advisory Board.

Organized by the Association of Occupational Health of Guatemala and Latin American Association of Occupational Health, the congress on 9-13 October 2017, the congress combined a wide array of speakers from South America and Europe in five plenary sessions.

Plenary 1
Perspectives of workplace health for the sustainable development of South America
 Dr. Juka Takala, Singapore and President ICOH

Plenary 2
Vision Zero: Working together in a safe and healthy world
 Helmut Ehnes, Germany

Plenary 3
Health, work and women in the targets of sustainable development
 Dr. Julietta Rodriguez Guzman, OPS/OMS

Plenary 4
Challenges and paradigms in applied and accepted ergonomics
 Dr. Carlos Espejo, Mexico

Plenary 5
Return on Investment in occupational health and safety
 Lic. Jose Raul Gonzalez, Guatemala

Joining for ISSA Mining: Helmut Ehnes explaining VISION ZERO and the 7 Golden Rules...



... and Mark Fülleemann, discussing the role of management behavior in respect to safety and health at work.



FIRST INTERNATIONAL THAILAND VISION ZERO CONFERENCE

Thailand in the VISION ZERO pole position

More than 100 industry professionals and prevention experts joined the Thai VISION ZERO launch at the FIRST INTERNATIONAL THAILAND VISION ZERO CONFERENCE, 12-13 September 2017 in Bangkok, Thailand. Conducted in close cooperation between the Safety and Health at Work Promotion Association (Thailand), in short SHAWPAT and ISSA Mining right after the XXI World Congress on Safety and Health at Work 2017 in Singapore, the two-day conference combined excellent

presentations by Thai- and international speakers. The contributions underlined the high commitment of Thai businesses to reach VISION ZERO by an agile adaption of ISSA's 7 Golden Rules. Remarkable business cases from Thailand showed how enterprises use ISSA's Guide for employers and managers to identify deficits and how to use the balanced scorecard to evaluate the status.

The event found excellent support by the Thai Ministry of Labour, associa-

tions, social insurance institutions and the Asia Pacific Occupational Safety & Health Organization (APOSHO) next to the Thai industry.

At the opening of the conference, welcome speeches were given by a number of distinguished guests such as Dr. Chaiyuth Chavalitnitikul, President of SHAWPAT, Mr. Ulrich Meesmann, President of ISSA Mining, Miss Duangporn Pornpitakpan, Inspector General for Department of Labour Protection and Welfare, Ministry of



SHAWPAT President Dr. Chaiyuth Chavalitnitikul warmly welcomed the more than 100 delegates to an outstanding VISION ZERO event.



What can be the alternative to "zero" from an ethical point of view, asked Ulrich Meesmann, and the delegates agreed: There is no other way.



SHAWPAT's manager Dr. Dheera Phong-anant led through the successful event in Bangkok.



More than 100 participants, high quality presentations, excellent business cases from Thailand, support by the ministry, associations, social insurance, and APOSHO – in short, the FIRST INTERNATIONAL THAILAND VISION ZERO CONFERENCE.

Labour, and Mr. Law Chi-Ming, Secretary General of Asia Pacific Occupational Safety and Health Organization (APOSHO). Unfortunately, due to the urgent official engagement, the invited Minister of Labour, General Sirichai Distakul would not be able to attend and give his Opening and Inaugural Address. However, his address was instead presented by Mrs. Petcharat Sin-ay, Inspector - General Office of the Ministry of Labour.

The first welcome speeches to all participants in the evening were given by Dr. Chaiyuth Chavalitnitikul, President of SHAWPAT and Mr. Vic Pakalnis, Vice President of ISSA Mining. This was then followed by the opening address and presentation of awards and certificates of appreciation by M.L. Puntarik Samiti, Permanent Secretary, Ministry of Labor, acting on behalf of the Minister of Labour, to those Thai

enterprises participated as the first members of Thailand Vision Zero.

Which are the future steps to VISION ZERO, asked the Panel Discussion at the end of the event. The positive and helpful exchange and discussion between the panel and the audience was conducted by the panelists consisting of the President of SHAWPAT, the Secretary

General of ISSA Mining and the Secretary General of APOSHO. At the conclusion of the panel discussion, the participants showed and expressed their commitments for continuing support of the Vision Zero Campaign as well as looking forward to the future establishment of a Vision Zero Center in Thailand and further collaboration with the ISSA Mining in general.



ISSA Mining Vice President Leigh McMaster discussed the human factor framework for managing risk in extractive and high-risk industries.



“The most important thing to come out of a mine is the miner”: ISSA Mining Vice President Vic Pakalnis reminded of the famous words of Frédéric LePlay, valid today as in the 19th century when stated by the French Inspector General of Mines.



VISION ZERO finds a great momentum in SHAWPAT as well as in the Thai industry.

The program

KEYNOTE 1:

VISION ZERO & THE 7 GOLDEN RULES: THE GLOBAL PREVENTION STRATEGY BY ISSA FOR MINING AND BEYOND
Mr. Helmut Ehnes, Secretary General, ISSA Mining, Germany

SESSION 1: GLOBAL AND NATIONAL STRATEGIES

KEYNOTE 2:

VISION ZERO TOWARDS OSH CULTURE AND SUSTAINABILITY FOR THAILAND 4.0
Dr. Chaiyuth Chavalitnitikul, President of Safety and Health at Work Promotion Association (SHAWPAT), Thailand

Paper 1: VISION ZERO: PRACTICAL APPLICATIONS OF THE 7 GOLDEN RULES IN CHILE

Julio Franzani, Mutual de Seguridad, Chile

Paper 2: VISION ZERO: MINING SAFETY IN CANADA

Vic Pakalnis, President & CEO Mirarco Mining Innovation, Canada, Vice President ISSA Mining

Paper 3: THE STATE OF VISION ZERO IN THE INDIAN MINING INDUSTRY

Prof. Ashis Bhattacharjee, Department of Mining Engineering, Indian Institute of Technology, India

Paper 4: TRAFFIC AND VEHICLE SAFETY - THE VISION ZERO PREVENTION STRATEGY OF THE GERMAN ROAD SAFETY COUNCIL

Jochen Lau, Senior Consultant, DVR, Germany

SESSION 2: BEST PRACTICE IN LEADERSHIP

SPECIAL KEYNOTE by Wolfgang von Richthofen, ISSA Mining Senior Adviser, IALI Senior Adviser and Helmut Ehnes, Secretary General, ISSA Mining, Germany.

Paper 5: EMBEDDED SAFETY PROGRAM
Miss Sudarat Rattanasang, Senior Manager, Environmental Health and Safety Department, Western Digital Ltd., Thailand

Paper 6: VISION ZERO – RAG’S WAY TO ZERO ACCIDENTS

Dieter Mantwill, RAG AG, Germany

Paper 7: LEADERSHIP: A KEY APPROACH FOR MOVING TO VISION ZERO

Mr. Naram Thippharos, Safety Manager, Teijin Polyester Ltd., Thailand

Paper 8: LEADING SAFETY WITH NUMBERS

Dr. Mark Füllemann, Practice & Experience GmbH, Switzerland

Paper 9: ENGAGEMENT JOURNEY OF THE OCCUPATIONAL SAFETY & HEALTH MANAGEMENT THROUGH EVERYDAY SELF-MANAGING TEAMS

Mr. Buncha Sritanauthaikorn, ESH & Business Affairs Manager, NXP Semiconductors, Bangkok, Thailand

SESSION 3: LEADERSHIP AND RISK MANAGEMENT

KEYNOTE 4: VISION ZERO – A STRATEGIC FOCUS

Adam Dargusch, The InterSafe Group Pty. Ltd., Australia

Paper 10: “LIFE SAVERS” FOR MANAGERS AND EMPLOYEES: THE BENEFIT OF SYSTEMATIC ACCIDENT ANALYSIS

Matthias Stenzel, Senior Consultant, ISSA Mining, Germany

Paper 11: MANAGING INTEGRATED HSE IN THE CONSTRUCTION OF AN UNDERGROUND POTASH MINING AND PROCESSING PLANT TOWARD ZERO ACCIDENT

Sujja Sairotphant, Senior HSE Manager, Asian Potash Chaiyaphum Public Co. Ltd., Thailand

Paper 12: Seagate EHS Management System,
Metta Ruennusan, E.H.S. Director, Seagate Technology (Thailand) Limited, Thailand

Paper 13: SUCCESSFUL RISK MANAGEMENT REQUIRES SUSTAINABLE LEADERSHIP

Wolfgang Bartsch, Labour Inspector, BG RCI, Germany



ISSA Mining’s Peter Rödel (right) gathered management experience in safe cement production for decades.



SHAWPAT arranged for a site visit to The Siam Cement (Ta Lueng) Co. Ltd., Khao Wong Plant on 14 September 2017.

SESSION 4: TOWARDS VISION ZERO BY BUILDING A SAFETY CULTURE

KEYNOTE 5: VISION ZERO IN THE CONSTRUCTION SECTOR: HOW TO IMPROVE CONSTRUCTION OHS TRAININGS

Mr. Firat Sükdürü Eker, ISSA Construction

Paper 14: VISION ZERO IN ROUTINE DUTIES: OVER 20 YEARS WITHOUT OCCUPATIONAL ACCIDENTS IN HIGH-RISK INDUSTRY

Mr. Peter Rödel, Senior Expert, BG RCI, Germany.

Paper 15: CULTURE – ROAD TO ZERO FATALITY

Mr. Fernando Cavieres Parraguez Mutual de Seguridad, Chile.

PANEL DISCUSSION: FUTURE STEPS TO VISION ZERO?



Site visits to lime plants gave insight into an excellent OSH standard as well.

ILA GENERAL ASSEMBLY AND INFORMATION EXCHANGE FORUM IN KYOTO

VISION ZERO meets the lime industry

150 plant owners and CEOs of the international lime industry met in Kyoto, Japan 4 – 6 October 2017, to discuss innovation and challenges such as CO2 emissions. Safety and health in

lime production were in the focus when the representatives of 20 countries came together. ISSA Mining's Helmut Ehnes introduced the VISION ZERO strategy and the 7 Golden Rules.

The Information Exchange Forum (IEF) and the General Assembly of the International Lime Association (ILA) were hosted by the Japanese Lime Association.



Highest vigilance while driving backwards



"Secure forklift trucks against rolling off when parking" says this sheet...



Use the forklift with safety belt only



... and so it is actually done in reality!



150 plant owners and CEOs of the international lime industry discussed hot industry topics in Kyoto, among them health and safety.

Both ILA President Wayne Brown, South Africa and ILA Secretary General Thomas Stumpf underlined the increasing importance of safety and health in the lime industry. Other issues were Co2 emissions, currently leading to the production of more than one ton CO2 with every ton of lime, energy efficiency and the effects of Big Data and the Internet of Things/Industry 4.0.

Paul Ellis of Schaefer Kalk, Malaysia, responsible for Schaefer Kalk's market in Asia, raised the question of how changing traffic concepts with safe and connected autonomous vehicles will influence the demand for steel, one of the most important segments for lime. ILA's Frank Ohnemüller discussed the research development in the European Lime Association (EULA).



Clearly marked paths for pedestrians



Still a hot topic: Well-working safety devices to secure classic hazard spots.

Created date: 2017/02
Date of revision: 2017/11
Author: Masahiro Kozushima

Safety Measure Card

<Job name>
Cleaning work of foot chute
<Important point>
Be careful of hot air and sparks.
※Work is done by wearing protective surface.

Created date: 2017/02
Date of revision: 2017/11
Author: Yuma Nagasawa

Safety Measure Card

<Job name>
Cleaning work of product lines
<Important point>
Inhale dust. Dust enters the eyes.
Wear protective mask, glasses.
※Check the adhesion of the protective equipment and wear it correctly.



Safety briefings and operating directives in practice: Information crafted by the operators themselves can be found literally everywhere.

The Health & Safety Session made up a third of the Information Exchange Forum. Chaired by Kai Schaefer, Vice President of ILA, President of Federation of German Lime Industry (BVK), Germany, the part combined international perspectives.

Viv Russel, Tarmac, UK, spoke of Leadership behavior in the safety context.

Tokio Kawai of Kawai Lime Industry, Japan explained Disaster prevention

after Earthquake/Tsunami. The response strategy now takes Tsunami waves up to 10 meters height into consideration.

Mathieu Bouchard, Graymont, Canada, discussed the company's Safety Challenge; showing, how safety can be successfully boosted by adding fun components.

Shingo Kimura, Ubematerials, Japan, talked about their lime plant's way of coexisting with neighbors and shared space.

Helmut Ehnes showed the new VISION ZERO video clip to introduce the prevention strategy, explained the approach which just went global a month prior to the ILA Assembly and the 7 Golden Rules for Safety and Health.

6 October gave the chance for site visits to three medium-sized lime plants sharing a joint quarry.



This idea stems of the employees: As part of the Kaizen creative thinking, they suggested to weld round irons on the steps to increase step safety.



An interesting variant: These spats keep objects from getting into the shoes.



Here safety is improved by a wired mesh, securing against falling through the rails.

Experiences with the 7 Golden Rules in the industry

Which role does VISION ZERO play at Seagate Technology Ltd., Thailand? Environmental, Health and Safety Director Metta Ruennusan introduced the progress of the storage manufacturer at the First International Thailand VISION ZERO Conference 12 and 13 September in Bangkok. She shares with our readers how the 7 Golden Rules made a difference also in a corporation applying high standards in health and safety already before.

Seagate is the global leader in storage solutions. We are committed to fostering a safe workplace and supporting activities that provide good health and social well-being for all people involved with our operations. We also have improved our environment, health and safety on a continuous basis and have

been certified and awarded by many local and international standards such as the National Outstanding Safety Role Model Factory Award, Responsible Business Alliance (RBA), ISO 14001 Environmental Management, OHSAS 18001 Occupational Health and Safety Management, Thai Labor Standard, Corporate Social Responsibility, Department of Industrial Works (CSR-DIW) Award and Thailand Kaizen Award.

Seagate, Thailand is taking part in the VISION ZERO Program with passionate support by our senior management since they now foresee the opportunity to further strengthen our Occupational Health, Safety and Environment Management strategies. Management has asked the Environmental, Health, and Safety Committee of both the Korat and

Teparuk factories to implement their engagement plans immediately. Seagate is one of the first of fourteen companies in Thailand that have been selected by the Safety and Health at Work Promotion Association (Thailand) or SHAWPAT to take part in this project.

The Vision Zero training by our EH&S Committee followed by Senior Management's assessment of both Thailand factories were completed within two recent months. Senior Management is now educated and has adopted the 7 Golden Rules for self-assessment as an excellent tool to measure status and continuous progress. They have joined the assessment with an openness and the sincere desire to develop the company in a continuous and sustainable manner on occupational health and safety. More opportunities



have been identified than expected during the self-assessment, however we value the gains we will make from these findings. We have envisioned our end goal and have developed actions which will enable us to achieve such targets. Seagate has participated in presenting the results of the implementation, opportunities and actions to close these gaps in the First International Thailand VISION ZERO Conference during September 2017 in Bangkok Thailand. There was an exchange of information among the public and private sectors from many countries. Conference participants also discussed the benefits from their participation in the VISION ZERO and the International Social Security Association (ISSA).



Metta Ruennusan introduced Seagate's experience with the 7 Golden Rules at the First International Thailand VISION ZERO Conference in Bangkok.

The SHAWPAT* team has already visited and followed-up on the improvements at Seagate. Seagate is confident we have already learned and gained benefits from this project in a concrete manner after just 3 to 4 months of project implementation as follows:

1. The 7 Golden Rules are not distinctly unique guidelines, however the approach is **different from other strategies** such as there is no need for completing complicated documentation. Moreover, apart from the typical occupational environment, health, and safety systems, the effect of these rules **influence the working culture of other disciplines** as operations and engineering functions, for example.

2. **Leadership Demonstration** is the first key step for all organizations to implement this program.
3. The creation of a **Safety Culture** starts with a **Safety Agenda** in all meetings such as **expressing appreciation** to employee's whom act in a safe and healthy manner by sharing their opinion and identify any potential hazard or risk. These repeated methods will generate more employee participation in occupational health and safety activities.

"VISION ZERO" is a new approach on environment, health, and safety management which is complementing our current systems. Cooperation from all employees will eventually bring a comprehensive culture of sustainable safety for the organization.

* SHAWPAT: Safety and Health at Work Promotion Association (Thailand)



By Metta Ruennusan
Environmental, Health and Safety Director at Seagate Technology Ltd., Thailand

FORMAL AND INFORMAL MINING

More than 100 from over 30 countries join OSH Conference and Workshop

More than 100 participants from 34 countries joined the International Scientific Conference and Workshop on Occupational Health and Safety in Formal and Informal Mining. The array of delegates coming together 22nd to 25th of August 2017 in Odense, Denmark, spanned researchers, officers and delegates from authorities and independent organizations, mining corporations as the ICMM, medium-sized quarry operators and representatives of artisanal small-scale mining – about half of them from developing countries.

The scientific program covered major topics of interest related to current research and solution implementation in occupational health and safety (OHS) in mining. The conference aimed to promote the dissemination of findings from local and global research. The conference and its connected workshop focused on health and safety issues, the work environment, and sustainable alternatives for reducing mining-related health effects and environmental pollution.

The delegates stemmed from Denmark, Ghana, Uganda, Cameroon, Canada, Sweden, South Africa, Colombia, India, Indonesia, Kosovo, Germany, USA, Republic of Korea, Australia, the Kyrgyz Republic, Pakistan, Philippines, Norway, Romania, Italy, Ecuador, United Kingdom, Nigeria, Peru, Iran, Tanzania, Democratic Republic of the Congo, Netherlands, Russian Federation, Japan, Finland, Faroe Islands, and Spain.

Helmut Ehnes pointed out the value of the meeting and the spatial diversity:

“With globalization, the world is growing closer together; it is the responsibility of OSH experts to contribute to peace and to save lives”, ISSA Mining’s Secretary General said in his welcome address.

Conference Topics

The topics discussed at the conference 22nd to 24th of August were

- Surveillance, diagnosis and prevention of occupational diseases and injuries
- Occupational diseases in Mining – Noise induced hearing loss, musculoskeletal disorders, pulmonary diseases, stress, toxic effects of hazardous substances (e.g. heavy metals, chemical, dusts), cancer
- Special health issues affecting women and children in Mining – Intoxication, adverse effects on reproductive health and early-life development, child labor
- Community health – Effects of pollution and exposure to hazardous substances in mining communities, Worldwide
- Working conditions and safety in formal and informal Mining
- Exposures, hazards and prevention

Ulrich Meesmann, President of ISSA Mining, delivered the keynote “VISION ZERO: Yes we can! - Prevention in Mining”; Helmut Ehnes followed with his keynote “Excellence for Safety & Health in Mining. ISSA Mining – Your Global Partner”.

Mr. Meesmann showed how there is no alternative to committing to “zero harm”, and illustrated how investment in prevention is not just an added burden, but a hands-on economic benefit. He used the business case of Alcoa to show how improved work safety boosted communication, innovation and smooth production, thus leading to increasing and sustainable success.

Mr. Ehnes described the story and idea behind VISION ZERO, its spread around the world and the tools towards a working world without any serious accidents and adverse effects to health.

Together with Derk Henri Brouwer of the University of the Witwatersrand, South Africa, Helmut Ehnes chaired the Session “Preventive measures”, discussing the constitution of homogeneous exposure groups in South Africa as a key-factor to identify workers at high risk, a training program to assist mine inspectors of Ghana in respect



Dr Dirk Dahmann discussed new occupational exposure limits for nitrogen oxides and their challenges for the potash and rock salt mining industry.



Safety and health support economic success. How they can improve a business overall was explained by Ulrich Meesmann in his keynote,

to artisanal and small-scale mining, and occupational health risk management.

Workshop Topics

The workshops 24th to 25th of August provided in-depth information both theoretical and practical on some of the more relevant issues in OHS in mining, by means of sharing experiences, case studies and practical guidelines for prevention.

- Pneumoconiosis
- Toxic effects of exposure to heavy metals
- Practical tools and methods for prevention

ISSA Mining delivered a two-hour training session on VISION ZERO,

conducted by quarry CEO and ISSA Mining member Dr Bettina Nickel, Matthias Stenzel and Helmut Ehnes.

The Mercury-Free Gold Mining Project in Uganda

An example of solutions was given by mercury-free gold mining. Artisanal and small-scale gold mining is an emerging economic activity in thousands of communities in Uganda. The miners rely on inexpensive, outdated and polluting technology including chemicals such as mercury to extract fine gold particles. This process is inefficient as it only extracts a small fraction of the gold part in the ore, and poses a risk to the health of miners and the environment. With the mercury-free gravity concentration method, an

alternative is at hand, extracting a reasonable amount of gold from the ore in shorter time and without the need for investment. The Mercury-Free Gold Mining Project in Uganda aims to build capacity, advocate internationally and to create alliances both locally and on a large scale.

Huge success

In his closing remarks, Helmut Ehnes expressed the huge variety between advanced industrial mining and the informal sector with its many small-scale mines. With a past focus on safety in mines, he underlined that occupational health needs to be shifted more into focus together with safety, as VISION ZERO calls for. This will be in the vital interest of companies as well, as it does



An ISSA Mining Vision Zero Workshop explained the practical application of the 7 Golden Rules.



not make a difference if work time is lost due to a disease or due to injury.

“The different professions seemed to benefit from each other; we had doctors, miners, geologists, engineers, technicians, researcher, and anthropologist taking part in the conference and that was good”, said Erik Jørs, Chair of the conference. “The many collaborators laid the ground for the conference to become a success, among them ISSA Mining, NIVA, ICOH SC’s and the local Danish organizations.”

The conference evaluation showed an impressive feedback: Every single respondent stated to have been “very satisfied (76%) or “satisfied” (24%) with the event. 93% stated they were satisfied or very satisfied with the

scientific content. The delegates rated the keynote speakers, the oral sessions and the networking possibilities excellently as well.

United for miner’s health

The International Commission on Occupational Health (ICOH) Scientific Committee (SC) on Mining Occupational Safety and Health (MinOSH) together with the Nordic Institute for Advanced Training in Occupational Health (NIVA) organized the conference. A series of co-sponsors contributed in different ways to the event, among them ISSA Mining, ICOH Scientific Committees SCIH, SCOHSSEIS, SCOHDev, the Danish Society for Occupational and Environmental Medicine, Workplace Health Without Borders (WHWB), NGO Dialog-

os, the University of Southern Denmark (SDU), the Clinic of Occupational Medicine Odense University Hospital, Greenland Center for Health Research, and the Danish National Research Centre for the Working Environment.

ICOH MinOSH and ISSA Mining agreed to establish a permanent cooperation and developed the idea to co-organize a follow-up conference in 2019.

Resources online

Impressions, Conference Book, Evaluation and Videos of Keynotes:

.....
<http://www.icoh-minosh.com/>



The method of mercury-free extraction was presented first hand.



VISION ZERO has arrived in Europe

Just a few weeks after the global Vision Zero campaign was introduced at the XXI World Congress on Safety and Health at Work 2017 in Singapore, ISSA's new approach is starting to spread around the world. 220 prevention experts joined the official European campaign launch at the A+A Congress and Trade Show for Occupational Safety and Health in Düsseldorf, Germany, 17 October 2017, creating another milestone for the strategy's spread across the world. Lufthansa's Captain Manfred Müller introduced the inspiring example of mastering risks at a Gold Standard Level in his keynote.

From Singapore to Düsseldorf

ISSA President Dr. Joachim Breuer and Secretary General Hans-Horst Konkolewsky explained the aims and steps of the groundbreaking joint action of their international organization with its vast network around the world. Ho Siong Hin of Singapore's Ministry of Manpower shared impressions from the World Congress in Singapore, an event he offered successfully to 3,700 international prevention experts, opening a mindset for a new quality level of prevention and a joint approach across stakeholders, throughout the world.



Ho Siong Hin (left) carried over the spirit of the international VISION ZERO launch six weeks prior in Düsseldorf when explaining to MoC Sandra Berndt and Hans-Horst Konkolewsky.

Achieving the Gold Standard: Focus on people

Keynote speaker and Vision Zero-Ambassador Manfred Müller gave an impressive insight into what is possible and what needs to be the ambitious aim when dealing with safety. As Head of Flight Safety Research at German flight carrier Lufthansa, he compared risk perception in self-controlled and externally controlled environments. Mr. Müller showed how Lufthansa's steps led to outstanding safety results, multiple times better than the industry average or even intensive medicine. Tolerate the fact that human errors occur, was his message, and

establish a team setting based on a culture of communication and redundancy. In another model of Good Practice, Cpt. Müller showed how a reporting system is used to gain insight into unsafe conditions, invisible to traditional safety reporting and delivering valuable information for prevention.

How to disseminate the 7 Golden Rules?

How to get "From Vision to Strategy?" was the focus of a panel discussion by stakeholders, including the business owner's point of view.



The winners of the German OSH Awards 2017 included RAG miners for their prevention campaign.



Consider the human factor to excel in prevention, VISION ZERO Ambassador Manfred Müller called for.

What led ISSA Mining's Helmut Ehnes to the concept of VISION ZERO as a prevention strategy and the 7 Golden Rules for implementation at the company level? Why is this the right approach globally? Mr. Ehnes stated

- Because it is a practical, common sense approach;
- Because it involves all stakeholders, creating a common frame for businesses, managers, employees, labor inspectors, organizations, unions, government institutions;
- Because it is an emotional approach leading to the required mindset for true success in prevention;
- Because there is no acceptable alternative to "zero harm" – since how many fatalities would be okay?

Helmut Ehnes emphasized that the main reason for the approach: Everybody wants to return safe and healthy back from his work home every day. He described in detail the measures taken by the German Social Accident Insurance institution for raw materials and chemical industry (BG RCI – visionzero.bgrci.de).

The talk was followed by Gisela Derrick, Secretary General of ISSA's Education & Training Section and Global Engagement Adviser at IOSH: "I think we all agree that it's important that Vision Zero is brought to life by moving from theory to practice – it is why we are here, right?", she asked, and explained the VISION ZERO training concept, developed as an open and agile tool with practical applicability.

As a guide for experienced OSH trainers committed to Vision Zero, the material is available to accredited trainers at www.visionzero.global.

Disseminate and motivate: ISSA's Prevention Sections

The ISSA Sections Mining, Construction and Transportation shared their views and recommendations on Vision Zero and the 7 Golden Rules. Martina Hesse-Spötter, Chairperson of Special Commission on Prevention which leads ISSA's 13 Prevention Sections, emphasized the importance of video and multimedia to relay the core messages of the Vision Zero strategy to the different kinds of target audiences (www.mediainprevention.org).



Why are the 7 Golden Rules so popular around the world? ISSA Mining's Helmut Ehnes shared his thoughts.



Qualification will be a key of VISION ZERO's success. Gisela Derrick explain how it will be done.

Best Practice "to go" from the heart of the industry

The European Vision Zero launch was conducted in a package with the awarding of the 2017 German Occupational Safety and Health Award, offering Best Practice solutions as a bonus to the attendees. Nominees received the awards live on stage, awarded in the categories technical and organizational prevention solutions, for large companies and SMEs alike.

Among them was German coal mining operator RAG, winning with their integrative prevention campaign in the challenging phase-out process.

"From Vision to Operation"

The "Düsseldorf Round Table" concluded the remarkable event as a panel of experts from the construction, mining and the transportation sector together

with representatives of companies. Christian Felten, Secretary General of the Transportation Section, clearly stated that "The 7 Golden Rules have to be differentiated and adapted to needs of the sectors. This is especially important for approaching small and medium sized companies. The most important aspect in the transportation sector are fault-tolerating systems!" When talking about the causes of accidents, traffic is playing an important role. In implementing the Vision Zero strategy successfully within this sector a large part of the accident occurrence could be avoided. Vision Zero was first used in the road safety sector in Sweden in the 1990ies. In the transportation sector there are already subareas in which "zero" was nearly reached or is strived for, as it is the situation in the aviation sector. All sectors can learn a lot from the processes introduced by the aviation industry: Why not training bus drivers, waste collectors etc. as good and extensive as pilots and cabin crews? Are fatalities and injuries more acceptable

within these sectors? This thinking is not acceptable anywhere.

The representative of the construction sector, Karl-Heinz Noetel, stated that experience with numerous conferences, courses and workshops also with OSH experts, workers and employers from developing countries clearly shows that the concept of the Vision Zero strategy is easy to understand. This applies even in environments where safety and health are not yet as important as they should be. Following Mr. Noetel, the application of the 7 Golden Rules can be adapted to the individual needs of sectors and companies without losing the core content. Chimney sweeper Markus Wanck as a representative of a typical small sized enterprise claimed good practice examples especially for SMEs.

ISSA Mining's Ulrich Meesmann (center) explained the foundation of the strategy – to be a door opener to attract companies to safety and health - at the "Düsseldorf Round Table".



11TH OCCUPATIONAL HEALTH AND SAFETY FORUM

From Vision to Reality

The 11th Occupational Health and Safety Forum saw a full house on 5 October 2017 at the conference center of the Chamber of Commerce in Luxembourg with the participation of Social Security Minister Romain Schneider and UEL and INDR Chairman Michel Wurth. Two witnesses of the national VISION ZERO campaign, Cindy and Josy, also attended the event.

The Forum was organized by AAA, UEL and INDR in co-operation with ISSA and BG ETEM and dealt with the "Management of Occupational Health and Safety". The Forum is set in the national VISION ZERO strategy, which was launched on 24 March 2016 at the 10th edition of the Forum.

VISION ZERO in Luxembourg is set in a common and integrated framework with the objective to reduce the national frequency rate of occupational accidents by 20% compared with 2014, concerning all sectors on a timeline of 7 years (2016-2022), and more importantly to reduce the number of serious and fatal accidents.

The national and international developments of VISION ZERO were presented at the Forum, with a particular focus on existing standards concerning health, safety and wellbeing at work as well as corporate social responsibility. This movement has developed into a global action thanks to ISSA's initiative "Vision Zero Global", which includes the three dimensions of safety, health and wellbeing at all work levels.

At the national level, besides the VISION ZERO strategy, several initia-



How to include corporate health promotion into an OSH management? BG RCI's Nicole Jansen explained.



AAA, UEL and INDR ran a successful forum adding momentum to the national VISION ZERO initiative.



Keynoter Wolfgang Bartsch of ISSA Mining shared the spirit of Singapore, where the ISSA launched the global VISION ZERO campaign in September 2017.



Luxembourg's stakeholders as well as international delegates accompanied Luxembourg on its dynamic journey towards ZERO.

tives were presented such as the AAA label "Sécher a Gesond mat System", the national Occupational Health and Safety Award, the INDR label "Entreprise Socialement Responsable", the action "TRAJET, sécurisons-le!", psychological risk prevention schemes and the 7 Golden Rules of VISION ZERO.

Many businesses understand their responsibilities. More than a hundred companies have stated their commitment to the VISION ZERO strategy and will introduce an action plan.

At the international level, initiatives were presented: the "Vision Zero Global" campaign, the prevention culture campaign "komm-mit-mensch", the "Keiner kommt um – Alle kommen

an" campaign, occupational health and safety management systems, return on prevention systems and current developments of ISO 45001.

The next full-scale Forum with stalls and workshops will be staged on 19 April 2018 at LUXEXPO THE BOX, Luxembourg-Kirchberg.

More information online:

www.visionzero.lu

www.visionzero.lu/mediatheque/forum-sst-2017

www.youtube.com/watch?v=OyEmlkD5sh8&feature=youtu.be

www.facebook.com/visionzerolu

AAA

Association d'assurance accident

UEL

Union des Entreprises Luxembourgeoises

INDR

Institut national pour le développement durable et la responsabilité sociale des entreprises

BG ETEM

Berufsgenossenschaft Energie Textil Elektro Medienerzeugnisse

German Social Accident Insurance Institution for the energy, textile, electrical and media products sectors

ISSA Electricity

International Section of the ISSA for Electricity, Gas and Water

BG RCI

Berufsgenossenschaft Rohstoffe und chemische Industrie
German social accident insurance institution for the raw materials and chemical industry

Romania: VISION ZERO and OSH research

ISSA Mining member INSEMEX – the National Institute for Research and Development in Mine Safety and Protection to Explosion - Petroșani – invited to the 8th edition of the International Symposium on Occupational Health and Safety - SESAM 2017.

Taking place in Bucharest, Romania 19 October 2017, the symposium found the support and cooperation of the University of Petroșani and the Labour Inspection, hosted the auspices of the Ministry of Research and Innovation and under the high patronage of the Academy of Romanian Scientists - AOSR.



ISSA Mining's Matthias Stenzel shared the Keynote presentation "VISION ZERO AND THE SEVEN GOLDEN RULES. THE GLOBAL PREVENTION STRATEGY BY ISSA".

Some 100 scientists joined to discuss research on occupational safety and health. The speakers covered explosion protection, modern explosives, risk assessment, the prevention of mental stress, noise, radiation monitoring (radon) and databases of hazardous substances. Participants stemmed from Romania, Poland, Italy, Turkey, and Germany.

International ISSA Chemistry Symposium at ACHEMA 2018 about Safety and Health in the Supply Chain of Chemicals

At the ACHEMA fair in Frankfurt (Germany) the international symposium "Safety and Health Protection in the Supply Chain of Chemicals" will take place on Tuesday, June 12th, 2018. The significance of transport across borders of nations and continents is constantly increasing within the global network of our work and living environment. Safety and health protection of employees who might come in contact with the products at individual stations, are important concerns of ISSA Chemistry Section and ISSA Transportation Section. Both these sections are organizing the joint, international symposium. All contributions and discussions are

translated simultaneously into German/English/French.

The symposium is free of charge and open to all interested persons who register for it in connection with a valid ticket to ACHEMA 2018. Informal registration is possible with Michaela Frenzel, who will also answer all organizational questions. (e-Mail: michaela.frenzel@bgrci.de).

For content-related enquiries, please contact Antje Ermer (e-Mail: antje.ermer@bgrci.de, Tel.: 06221 5108-28380)

Please find up-to-date information, as well as the detailed program, at

.....
www.ivss-chemie.de
.....



issa



Section on Prevention in the Chemical Industry



issa



Section on Prevention in Transportation

Occupational Exposure to Respirable Coal Mine Dust in Underground Mines in the USA

An ad hoc committee of the National Academies of Sciences, Engineering, and Medicine (NASEM) in the United States has been founded in response to a US congressional mandate in 2016 to assess monitoring and sampling approaches for informing underground coal mine operators' decision-making regarding the control of respirable coal mine dust and mine worker exposure.

The committee will:

- Compare the monitoring technologies and sampling protocols (including sampling frequency) currently used or required in the United States, and in similarly industrialized countries for the control of respirable coal mine dust exposure in underground coal mines.

- Assess the effects of rock dust mixtures and their application, as required by current U.S. regulations, on respirable coal mine dust measurements.
- Assess the efficacy of current monitoring technologies and sampling approaches, and develop science-based conclusions regarding optimal monitoring and sampling strategies to aid mine operators' decision making related to reducing respirable coal mine dust exposure to miners in underground coal mines.

The committee will identify important research gaps regarding monitoring and sampling protocols for controlling miners' exposure to coal mine dust. Base of investigations will be the require-

ments of the US Mine Safety and Health Administration's (MSHA's) final rule for lowering miners' exposure to respirable coal mine dust. The mandate does not extend as far as a change in this regulation is concerned, as the development of those requirements involves considerations beyond the scientific and technical focus of this study. Additional information on NASEM is available at

.....
www.nationalacademies.org
.....

Dirk Dahmann, Bochum

RESEARCH ON PREVENTION

Findings on vulnerability, prevention in high-hazard industries addressing gaps in essential skills

The researchers at Canada's Institute for Work & Health (IWH) share their findings online. Latest publications include vulnerability, prevention in high-hazard industries and the improvement of OHS training programs to address gaps in essential skills.

Find the workers you need to protect: New video tells how

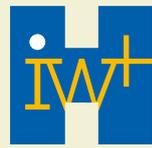
Do you know how to assess who is vulnerable to risk of work injury and who is not? Look beyond worker characteristics with the help of IWH's OHS Vulnerability Measure. A new video short explains.

Watch the video:

https://youtu.be/nT43__Y2r04

Vulnerable workers and risk of work injury: Issue Briefing by IWH

www.iwh.on.ca/summaries/issue-briefing/vulnerable-workers-and-risk-of-work-injury



**Institute
for Work &
Health**

Research Excellence
Advancing Employee
Health

High-hazard industries: Addressing safety culture, climate and leadership to improve outcomes

On November 1 at Toronto's Design Exchange, Dr. Linda M. Goldenhar, Director of Research and Evaluation at CPWR – The Center for Construction Research and Training in Silver Spring, Maryland, gave the 2017 Alf Nachemson Memorial Lecture. An expert in the safety culture and climate of construction workplaces, Goldenhar talked about the research that led her team to develop, first, a workbook to help strengthen jobsite safety climate by improving performance in eight areas identified as leading indicators of health and safety outcomes and, more recently, an online tool that assesses a workplace's safety climate maturity. She also shared preliminary evaluation findings of a program that she and her team developed to improve jobsite supervisory

leadership – one of the eight safety climate leading indicators identified as critical by construction stakeholders. You can listen to her presentation, with slides, at

www.iwh.on.ca/events/nachemson-lectures/2017-11-01

Addressing essential skills gaps in an OHS training program: a pilot study

Can an OHS training program be improved by modifying it to address gaps in essential skills? In a new study, a research team at IWH pilot-tested a modified version of a hoisting and rigging training program offered by the Labourers' International Union of North America (LiUNA) Local 506. The changes were made to address trainees' skills gaps in numeracy and document use that were related to the job. Last November, the team presented its findings, and that presentation is now available as a slidecast. Good news: it turns out the trainees in the program modified to address essential skills did better.

Watch the slidecast:

<https://iwhtest2017.iwh.on.ca/events/speaker-series/2017-11-28>



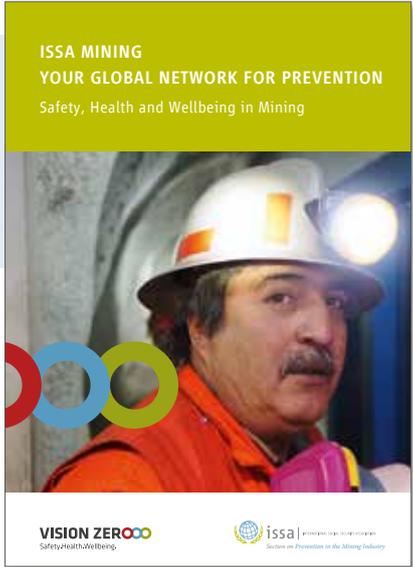
Source:
Institute for Work & Health (IWH),
Canada

ISSA Mining’s media portfolio updated

At the 2017 World Congress on Safety and Health at Work in Singapore, ISSA Mining introduced a new set of brochures to explain VISION ZERO and the 7 Golden Rules.

“ISSA Mining YOUR GLOBAL NETWORK FOR PREVENTION”

is a revised version of ISSA Mining’s introduction to its nature and work. The 2017 update explains the organization’s commitment to VISION ZERO and the 7 Golden Rules in Mining, as developed by its members. The profile explains what the international not-for-profit network does and the benefit to its members.



VISION ZERO –
THE GLOBAL PREVENTION STRATEGY
Towards Safety, Health and Wellbeing at Work

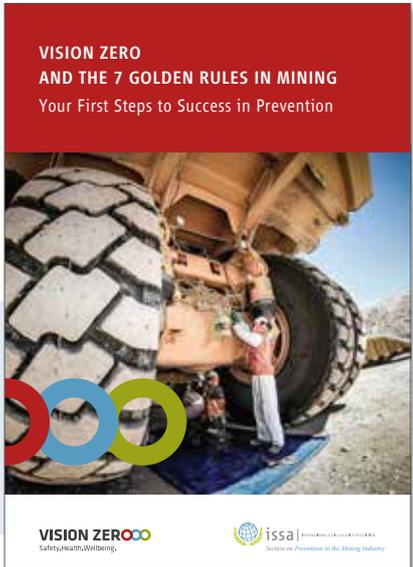


“VISION ZERO – The Global Prevention Strategy”

describes the onset of the prevention strategy, its historic roots and reason and tells the story of VISION ZERO beginning to spread globally. As a practical example of application, the 28-page brochure explains the aims defined and measures taken by the German social accident insurance institution for the raw materials and chemical industry. The comprehensive overview concludes with an outlook into the future development throughout the world.

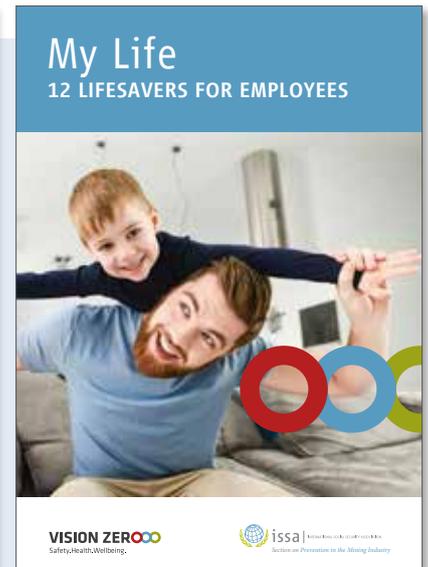
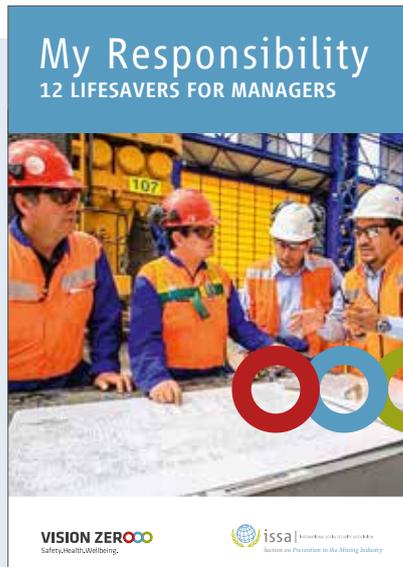
“VISION ZERO and the 7 Golden Rules in Mining – Your First Steps to Success in Prevention”

is a hands-on guide for businesses. It explains the motivation and nature of VISION ZERO and the 7 Golden Rules in Mining briefly and discusses each of the 7 Golden Rules with their benefits for health and safety in operations.



“My Responsibility - 12 Lifesavers for Managers” and “My Life - 12 Lifesavers for Employees”

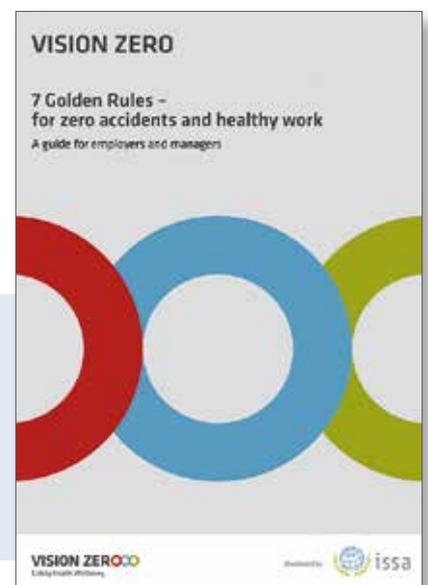
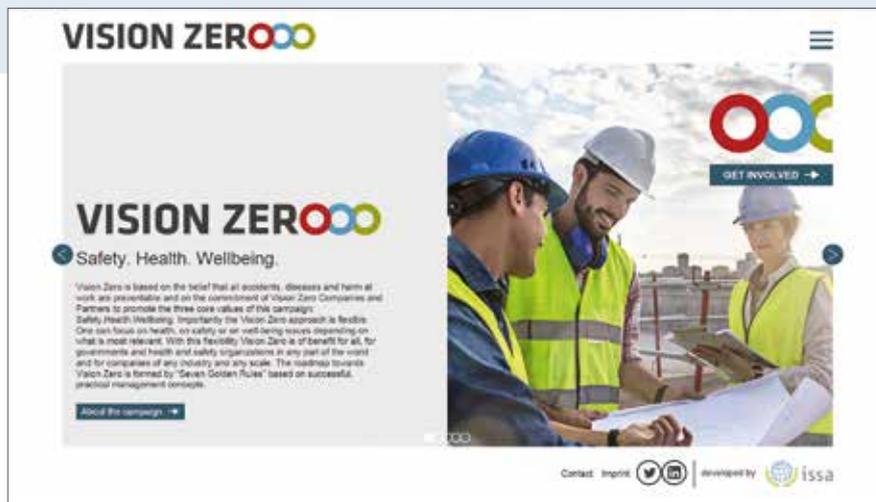
are hands-on recommendations for prevention. Each advice is based on sound facts, derived from the insight into more than 300 fatalities at work. Concise advice for operational tasks bearing the highest risks addresses managers and other responsible persons, as well as employees directly. Taking the Lifesavers systematically into consideration will avoid many fatalities and improve health and safety overall.



VISION ZERO global: New media by ISSA

www.visionzero.global

is ISSA’s website to promote VISION ZERO and the 7 Golden Rules. Next to explaining the strategy and the approach, the portal collects testimonials of international stakeholders and success stories of companies that reached a high level of safety. visionzero.global is a platform for every company to demonstrate commitment by pledging to the VISION ZERO, and offers resources; these include the Guide in seven different languages. This website is also the first stop for OSH professionals who would like to become a VISION ZERO trainer.



“VISION ZERO – 7 Golden Rules for zero accidents and healthy working”

is a guide for employers and managers published by the International Social Security Association (ISSA). As an exact adaption of ISSA Mining’s known system, it contains the checklists for each rule, guiding managers through the systematic implementation into the organization of health and safety at work.



Opening Ceremonies Novokuznetsk Russia

IMRB Россия 2017: I have a Dream

While still in Germany attending the 7th IMRB conference, Alexander Sin, Head of Directorate of EMERCOM Militarized Mine Rescue Units, proudly accepted the IMRB flag on behalf of EMERCOM of Russia and agreed to host "IMRB Russia 2017" and pieced together his thoughts regarding his vision of the future ...

"I have a dream. This dream inspires everyone who serves the safety in mining. I have a dream that one day every mine will be accident free, every miner will come back home safe and healthy. I believe with all my heart that step by step, by bringing our efforts together we will fulfill this dream. The coming conference will be the one of these steps."

The more than 200 mine rescue experts from 22 nations attending the 8th International Mines Rescue Body Conference learned and experienced, first-hand, not only how large Russia is but also how Russia's mine rescue system is structured and how challenging it is to respond to mine emergencies in such a vast nation. Coming from Canada I know how large our country is however this visit to Russia added a whole new dimension. After being in transit for an entire day, and after having a short layover in Moscow, we again boarded for a four hour flight which took us to Novokuznetsk which is located four time zones east of Moscow.

In order to understand size, Russia covers a total of 11 time zones; in other words we weren't even half way across

this massive nation when we arrived in Novokuznetsk. In addition I learned that Russia is the earth's largest country covering more than 17 million square kilometers or 11 per cent of the land surface of our planet. Russia's population is approximately 145 million inhabitants and there are more than 190 different languages spoken by different ethnic groups.



Opening Ceremonies Novokuznetsk Russia



Alexander Sin (left) Receiving IMRB Flag from Helmut Ehnes (center) and Wolfgang Roehl (Right) at "IMRB Germany 2015" Conference

Mine Rescue in Russia is a professional full- time service with approximately 4500 mines rescuers who are part of the parent organisation, EMERCOM of Russia which has some 200,000 employees. Vladimir Puchkov is the Minister for “civil defence, emergencies and elimination of consequences of natural disasters” and answers directly to the President of Russia which enables the organisation to deploy all necessary resources in the event of a natural or industrial disaster.

As part of a massive overhaul of mine rescue in Russia, the National Mine Rescue Center is being established in Novokuznetsk which is a city of approximately 500,000 inhabitants in south-western Siberia.

This newly- constructed state-of-the art facility will include training, virtual reality classrooms, research laboratories, medical workshops, rescuer acclimation and evaluation facilities including residence for mines rescuers

who will travel from all across Russia to attend training.

The theme of IMRB Russia 2017 was “Extending Knowledge... Improving Safety”; which was flawlessly demonstrated at the National Mine Rescue Center where upon arrival delegates were welcomed by the EMERCOM military band followed by comprehensive tours of this world-class facility.

Conference attendees were provided the opportunity to view existing and new emerging rescue equipment used by EMERCOM’s mines rescue responders. Tours of the facilities and laboratories included everything from exposure to equipment operation in virtual reality settings to demonstration from EMERCOM’s experts and physicians in evaluating the physical and mental capability of mines rescue responders. It was fascinating to learn the importance of relaxation facilities and the unique approaches taken in the prevention and rehabilitation of post incident stress.

In order to show comprehensive preparation of mines rescuers in this new facility, our Emercom hosts provided a simulation demonstration showing how an emergency may unfold at one of their typical mining operations.

The audience of more than 200 guests was forewarned that the mock emergency would be initiated with a simulated blast that would start the exercise. A massive explosion that startled the audience initiated the scenario: Several workers collapsed within the mine tunnel are seriously injured. Several emergency response vehicles manned with mine rescue teams arrive at the scene and quickly attend to injured workers at one end of the tunnel. Some are taken out on stretchers while others are assisted by



National Mines Rescue Center Novokuznetsk Russia.



Relaxation therapy facility.



Mine Rescue teams during rescue simulation Novokuznetsk Russia.



EMERCOM Mine Rescuers responding to a Mock Mine Emergency.

being walked out to safety. On the other end of the tunnel, another group of rescuers are fighting a fire with low expansion foam and after several unsuccessful attempts another back-up team resorts to a mobile inertisation unit which finally successfully extinguishes the fire.

All the while during the simulation, drones are flying around the site collecting air sampling data and to top off the exercise an EMERCOM helicopter also lands at the site of the emergency to assist with the situation. Although this was a simulation it showed first-hand how well these EMERCOM of Russia mines rescue teams are trained and also it showed the diversity of equipment that is available to their teams in the event of a real-life emergency.

The Scientific portion of the program consisted of a plenary session followed by 31 presentations in the following concurrent streams which addressed the topics of:

- Emergency Preparedness
- Mines Rescue Operation management System and Effective Operations
- Future Trends

- Medical Support During Mines Rescue Operations

In addition to technical presentations, “Master Classes” regarding the specific use of their respective equipment were delivered by specialists from DEZEGA and Drager.

Without doubt, an important aspect of every conference is having the opportunity to network with colleagues and friends to get reacquainted and to discuss business in a casual setting. Conference sponsors DEZEGA did just that in providing a fabulous evening which featured this local trio which treated the audience to music that ranged from classical tunes to contemporary rock.

Numerous “Professional Field Trips” were available to conference attendees and included:

- The Berezovsky open pit mine and the Matyushinskaya coal processing plant
- The Uvalnaya coal Mine
- The Shedrukhinskaya central processing plant
- The SUEK-Kuzbass united center of monitoring, control and analysis

All facilities toured during the conference are world-class and reflected leading edge practices similar to any modern mining operation located anywhere in the world.

In addition conference attendees visited the active underground Moscow Subway construction project and the National Crises Management Center (NCMC) in Moscow. The NCMC is a fully-manned state-of-the-art facility that allows EMERCOM to monitor emergency situations across the entire nation. Since EMERCOM’s mandate is very broad, it allows them to deploy the necessary resources in response to any natural and industrial incident that occur within the country and may include flooding, forest fires, hurricanes etc. and includes responding to fires, explosions and other emergencies at industrial establishments. In addition EMERCOM may assist with international humanitarian initiatives if resources are available.

Not only is the city of Saint Petersburg, Russia regarded as the “Venice of the North” it is also home to one of the oldest and largest university in all of Russia- Saint Petersburg University. Not only was Saint Petersburg Mining University founded by Empress Catherine the Great it is now one of the most highly respected universities in all Russia.

Conference participants were provided a comprehensive tour of university laboratories and classrooms where they were exposed professors and lecturers who informed them how the university has evolved to be acknowledged as an



DEZEGA’s “Soiree”



Matyushinskaya Coal Processing Plant



IMRC Russia conference Attendees



Saint Petersburg Russia “Venice of the North”



International specialists round table meetings at Saint Petersburg University, "Making Mining Safe"

International Center for Mining Engineering Education under the auspices of UNESCO. The university also hosted a round table discussion regarding "accident prevention in the mining industry" which provided Russian and international delegates the opportunity to provide strategies for global improvement of safety in the mining industry.

IMRB Meeting Business Meeting Novokuznetsk 2017

The International Mine Rescue Body business meeting was held in Novokuznetsk and several key resolutions and decisions were made including the following:

Agencia Nacional de Minería (ANM) of Colombia is the newest member of the International Mines Rescue Body. Colombia has actively been participating actively in all International Mines Rescue activities including attending IMRB conferences and International Mines

Rescue competitions for several years now.

The International Mines Rescue Body website has been in existence for 10 years now and modernization of the website will include a major overhaul. The website can be found at www.minerescue.org.

The next International Mines Rescue Competition "IMRC Russia 2018" will be held in September 2018 in Russia. Information updates will be posted on their website located at www.imrc2018.ru. The exact location within Russia of the competition has not yet been announced the following information has been released:

- Competition Registration will be available from March 01 2018 to May 31, 2018
- The competition rules will be posted at the official competition website www.imrc2018.ru by the end of February 2018.

- Mine Rescue Professional who wish to participate as judges must apply by forwarding their CV to the organisers at imrc2018Russia@gmail.com.
- IMRC Languages will be English and Russian.
- Manufacturers and developers of mine rescue equipment and technologies will be allowed to demonstrate their products on the exhibition platform of the competition.

Hosts for the next several International Mine Rescue conferences and International Mines Rescue Competitions have been tentatively identified and will be formally acknowledged on the IMRB website over the next several months.

Colombia to Host the Next International Mines Rescue Conference "IMRB Colombia 2019"

Bogota Colombia will be the center of activity from September 7 to 14, 2019



IMRB Executive Meeting Novokuznetsk Russia 2017



Gloria Catalina Gheorghe Mine Rescue and Safety Manager ANM accepting IMRB Certificate for Colombia from Alex Gryska IMRB Secretary Treasurer



IMRB Colombia 2019 Logo



Plaza de Bolivar Bogota Colombia

as mines rescue experts from around the world descend on Bogota which is not only the capital of Colombia boasting a population of approximately 8 million inhabitants but also the fifth most populated city in the Americas. Bogota is an engaging and vibrant capital cradled by chilly Andean peaks.

The cobbled historic downtown streets are lined with preciously preserved colonial buildings, house museums, restaurants, hotels and bars peppered amid homes and churches. Nearly all of Bogotá's traditional attractions are here – radiating out from Plaza de Bolívar.

Colombia is the first nation from Latin America to become IMRB members and they will be the first South American nation to host the International Mines Rescue conference.

About Colombia, Mining and Mines Rescue

Colombia is the 4th most populated and 4th largest economy within Latin American. Their economy has been growing at

3.7 % per year for the past 5 years with a GDP of \$233.4 USD in 2016. Key commodities include emeralds, coal, nickel, gold and copper where the mining sector employs 350,000 jobs and almost 1,000,000 indirect jobs. Mining exports reached \$6.8 million USD in 2016 and are amount to 225 of total exports.

Colombia has a centralized National Mines Rescue System with approximately 1800 volunteer mines rescuers employed at mines which are scattered across their entire nation. In addition they have 35 engineers and mine rescue experts who assist with delivery of their mines rescue program.

Over the past several years Colombia have hosting a biennial national mines

rescue competition and the winner of this event represents the nation at the upcoming International Mines Rescue Competition. This year's national winner will represent Colombia at "IMRC Russia 2018" next year.

Additional information can be obtained by contacting organisers of IMRB Colombia 2019 at

imrb.colombia2019@anm.goc.co

Author:

Alex Gryska, OHST, DipAdEd, Secretary Treasurer, International Mines Rescue Body, Sudbury/Canada



AGENCIA NACIONAL DE **MINERÍA**



2015 Colombia's 1st National Mine Rescue Olympics



Vladen Aksenov the Deputy Minister for Civil Defense, Emergencies and Elimination of Consequences of Natural Disasters passes the Symbolic IMRB flag to Ms. Gheorghe representing Colombia the 2019 IMRB host nation.

More events for the Mining Industry

ISES Europe 2018 1st ISES Europe Annual Meeting http://ises-europe.org	19 - 20 June 2018	Dortmund, Germany
25th World Mining Congress including ISSA Mining Session "Safety and Health in Mining" www.wmc2018.org/en/	19 - 22 June 2018	Astana, Kazakhstan
Lagos Vision Zero Conference 2018 www.lagosvisionzero.ng	26 - 28 June 2018	Lagos, Nigeria
Mutual Summit: First Vision Zero Conference Latin America in Chile	9 - 12 July 2018	Chile
ConMin West Africa and National Mining Summit 2018 www.conminwestafrica.com www.nationalminingsummit.com	4 - 5 September 2018	Abuja, Nigeria
MEI 2018 Mining & Exploration International Conference & Expo www.MiningExplorationIntl.com	6 - 8 September 2018	Las Vegas, USA
XI International Mines Rescue Competition http://en.imrc2018.ru/	22 - 29 September 2018	Ekaterinburg, Russia
3rd International Conference and Exhibition on Occupational Health and Safety in Mines http://www.tmdconference.org/en/	1 - 4 December 2018	İstanbul, Turkey
International Exhibition for Construction, Mining and Transportation - Machinery, Equipment, Technology, Vehicle & Materials (CONTECH VIETNAM) www.contechvietnam.com	5 - 8 December 2018	National Exhibition Construction Center (NECC), 01 Do Duc Duc, Nam Tu Liem District, Hanoi
IMRB Colombia 2019 IMRB.Colombia2019@am.gov.co	7 - 14 September 2019	Bogota, Colombia

New members

Ordinary members

- **Austrian Workers' Compensation Board (AUVA)**,
Vienna, Austria
- **Kumtor Gold Company**
Bishkek, Kyrgyz Republic
- **Samedical**
Carolina, South Africa
- **NORDGOLD**
- **TEIJIN**
Amphur Klong Luang, Pathumthani,
Thailand
- **The Singareni Collieries
Company Limited
Corporate Safety,**
Kothagudem, India

Corresponding members

- **Fernando Cavieres**
Ingeniero Prevencion de Riesgos y
Medio Ambiente Independiente
Rancagua, Chile
- **Prof. Derk Brouwer**
University of the Witwatersrand
Faculty of Health Sciences
School of Public Health
Johannesburg, South Africa
- **Dr. Afua Timpo**
Goldfields Mine Hospital
Tarkwa, Ghana
- **Wirat Tessing**
CYPRESS Semiconductor
Support and Service Organization
Pakkred, Nonthaburi, Thailand
- **Thierry Motchebong**
NORDGOLD
- **Firat Sükrü Eker**
IVME
Istanbul, Turkey



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www.healthy-workplaces.eu

#EUhealthyworkplaces



Membership Application Form

ISSA Mining
c/o Berufsgenossenschaft Rohstoffe und chemische Industrie (BG RCI)
Hunscheidtstraße 18, D-44789 Bochum, Germany

ISSA Mining Section Membership

Ms. Mr.

Title / First Name / Surname

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Address Institution

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Address private

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Telephone

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Fax

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ISSA Mining Newsletter

Published by the International Section of the ISSA on Prevention in the Mining Industry, Geneva/Bochum.

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