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Global Initiative for Safety, Health and Well-being @EXPO2025 & Beyond (GISHW)

Join GISHW and co-create a better tomorrow for global citizens, starting with the working environment!



GISHW2025: A Historic

Message from the GISHW Executive Committee Chair: Advancing Global Safety, Health, and Well-being

GISHW2025 — the Global Initiative for Safety, Health and Well-being for All — took place from July 16 to 19, 2025, at Expo 2025 Osaka and INTEX Osaka. Supported by unwavering commitment and the aspirations of countless contributors, the initiative concluded with resounding success. Born from the spirit of Expo 2025's guiding theme, "Designing Future Society for Our Lives," GISHW2025 stood as a solemn pledge: that every life has worth, every individual has dignity, and the future we shape must protect and uplift all people.

This gathering marked a profound milestone in the history of the world's expositions. For the first time in 174 years, an international forum placed the safety, health, and well-being of humankind at its core — not as a subsidiary topic, not as a technical issue, but as the very foundation of a flourishing global civilization. Here in Osaka, we affirmed a universal truth: that the pursuit of progress must always serve the human spirit and protect human life.



GISHW is not simply an event; it is a movement, a philosophy, and a shared global undertaking. It is a platform meticulously structured to unite the leaders who shape society: distinguished experts and practitioners; scientists, engineers, and innovators; international standards specialists; educators and researchers; and influential executives and policymakers. From 68 countries and regions, they gathered not only to share knowledge, but to ignite action — inspired by a conviction that the well-being of 8 billion people is both a moral responsibility and a strategic imperative for humanity's future.

At GISHW2025, diverse voices converged into a single chorus. Ideas were exchanged, experiences were shared, and future pathways were envisioned. It became a dynamic arena of co-creation — where curiosity met conviction, where innovation stood shoulder to shoulder with ethics, and where the seeds of new value were planted. In these halls, one could feel the beginning of something larger than any institution, larger than any nation — a collective will to build a world where life is respected and every person can thrive.

To meet challenges of such magnitude, we must adopt a comprehensive perspective. Today's global issues are interconnected and multidimensional: rapid digital transformation, demographic change, widening inequalities, climate impacts, geopolitical tensions, and the rise of new occupational and societal risks. No single field, organization, or country can solve them alone. Therefore, GISHW is founded on a principle we hold sacred — co-creation across boundaries.

Through the GISHW Consortium, we strive to transcend divisions: between industry and academia, between technology and humanity, between expertise and lived experience, and between nations. By opening knowledge, building bridges, and combining wisdom, we seek to create solutions that endure — solutions that benefit all rather than a select few.

This vision is not abstract; it is already taking form in tangible action:

- Creation of human-centered **technological ecosystems**, where robotics, AI, and IoT enhance not only productivity but the dignity and safety of workers.
- Leadership in **international standards**, contributing to global norms that embed ethical responsibility, transparency, and human well-being at the core of innovation.
- Strategic collaboration across sectors, **enabling academia, international organizations, industry, and governments** to address complex societal challenges with unified resolve.
- **Executive commitment** to culture, proving that a strong safety and health foundation is not the opposite of competitiveness — it is the engine of sustainable prosperity.

The circle of co-creation continues widening. It now extends into frontier domains: artificial intelligence

First at the World Expo

and autonomous systems; life sciences and regenerative healthcare; and the digital transformation of nursing, caregiving, and human support. These fields contain immense promise — and profound ethical responsibility. They require not only technological excellence, but a compassionate compass, global stewardship, and a commitment to ensuring that innovation dignifies and protects human life.

What began at Expo 2025 will continue as a permanent global platform, sustained by cooperation among industry, government, and academia. In this moment, Japan embraces its role in contributing responsible leadership to the international community — not through command, but through collaboration; not through ambition alone, but through empathy and shared resolve. Our goal is clear: to help shape a world where safety and well-being are not privileges, but universal rights; where prosperity and compassion stand together; where humanity advances without leaving anyone behind.

Our journey does not end in Osaka. From here, we advance toward Riyadh in 2030 and onward, to new horizons yet unimagined. To strengthen this commitment, a biannual global event dedicated to Safety, Health, and Well-being will be held in Osaka as we progress toward Riyadh 2030. This event will feature both an exhibition and a symposium, with a special focus on technologies that achieve safety, health, and well-being — fostering innovation, dialogue, and collaboration across sectors. The task before us is great, but the conviction that guides us is greater still.

We extend our earnest invitation to all who share this vision. Let us walk forward together — across borders, across disciplines, and across generations — to design and realize a sustainable future where every life may shine.

Together, we build not only the future — but a legacy worthy of those who will inherit it.

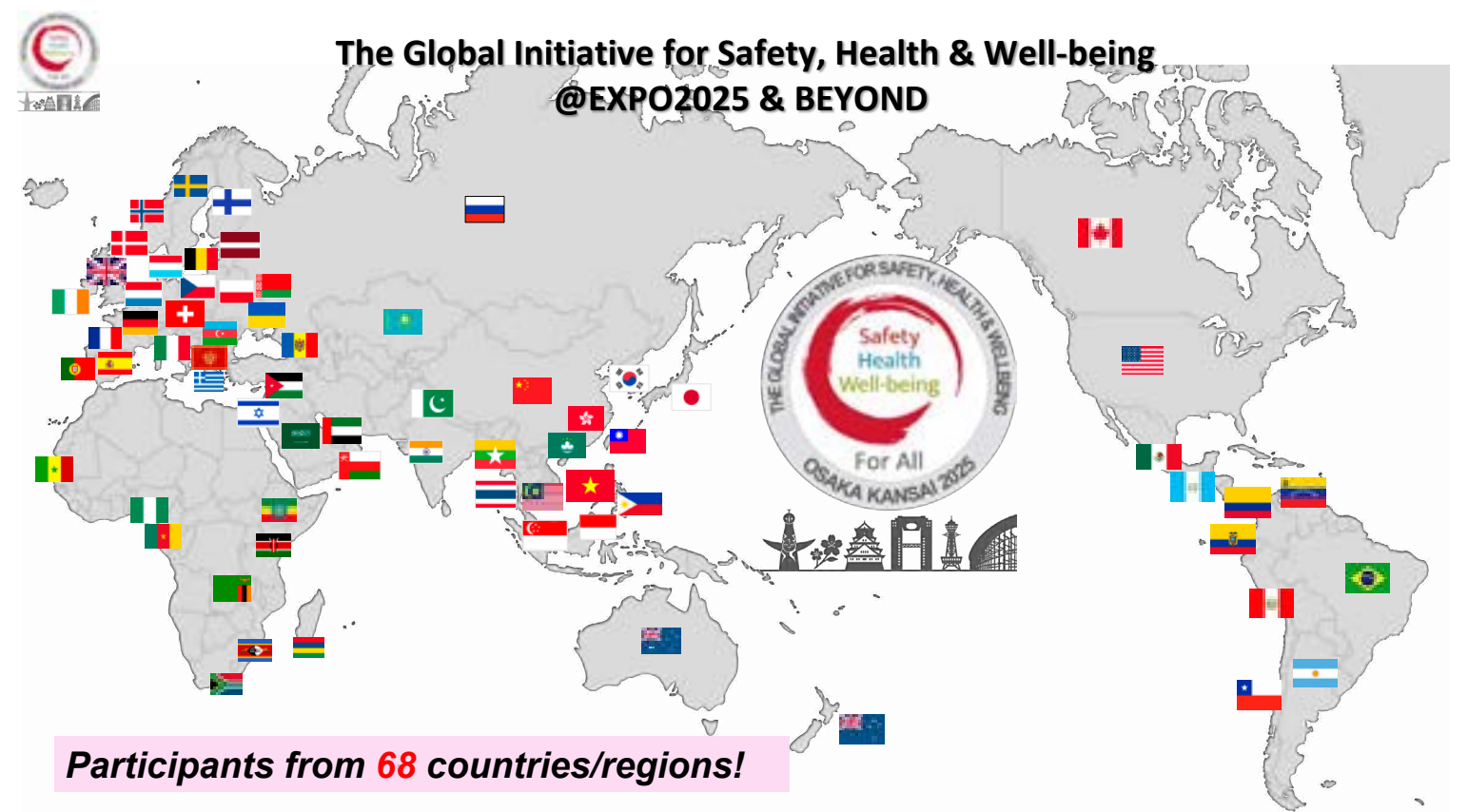
Dr. Toshihiro Fujita
Chair, GISHW Executive Committee
Director, Institute of Global Safety Promotion (IGSAP)

G I S H W

**A global industry-government-academia co-creation framework
for Safety, Health, and Well-Being**



GISHW Member Organizations



Participants from 68 countries/regions!

GISHW Organizer, Co-organizers, Supporters, Sponsors

Organizer



The Global Initiative for
Safety, Health and Well-being

Co-organizers



IGSAP
The Institute of
Global Safety Promotion



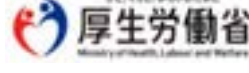
日刊工業新聞社
The Nikkan Kogyo Shimben

Supporters



外務省

Ministry of Foreign Affairs of Japan



厚生労働省
Ministry of Health, Labour and Welfare



MLIT
Ministry of Land, Infrastructure, Transport and Tourism



**OSAKA CONVENTION
& TOURISM BUREAU**



Keidanren
Japan Business Federation



関西経済連合会
Kansai Economic Federation



大阪商工会議所
The Osaka Chamber of Commerce and Industry



いのち会連
JISHA 中災防



JCOSHA
Japan Construction Occupational Safety and Health Association



AIST



ACTEC Advanced Construction Technology Center
最先端建設技術センター



JISHA 中災防



JSAGROUP
JAPANESE STANDARDS ASSOCIATION GROUP



FBIA Fine Bubble Industries Association



Japan Robot Association



NECIA NIPPON ELECTRIC CONTROL EQUIPMENT INDUSTRIES ASSOCIATION



JNIOH
Japan National Institute of Occupational Health and Safety



Sier
Japan Robot System Integrator Association



JMF 一般社団法人日本機械工業連合会



Robot Revolution & Industrial IoT Initiative



一般社団法人日本労働安全衛生コンサルタント会
JAPAN ASSOCIATION OF SAFETY AND HEALTH CONSULTANTS



SOCIAL SOLUTION INITIATIVE (SSI)

Sponsors



IDEC



FBIA Fine Bubble Industries Association



MTG



MITSUBISHI ELECTRIC
Changes for the Better



MITSUBISHI ELECTRIC ENGINEERING



Institute of SCIENCE TOKYO



Research Institutes



Standards & Engagement



職業安全健康局
OCCUPATIONAL SAFETY & HEALTH COUNCIL





Executive Committee Members

In alphabetical order of last name

  Honorary Chair Masao Mukaidono	  Chair Toshihiro Fujita	  Vice-chair Hiroshi Asahi	  Vice-chair Eiyu Hayashi	  Vice-chair Hans-Horst Konkolewsky	  Vice-chair Marijana Zivkovic Mtegha	  Vice-chair Shinichi Takasaki	  Vice-chair Yoshikazu Tanaka	  Vice-chair Lars Wismer	  Vice-chair Noriko Takeuchi
  Tommi Alanko	  Majed Alfuwaiz	  Kim Hyun Joong	  Dee Arp	  Mohammed Azman	  Ulrike Bollman	  Samantha Connell	  Bernie Doyle	  Rolf Ellegast	  Christian Felten
  Hiroshi Fujiwara	  Andresa Hernandez	  Ho Siong Hin	  Carina Hjørngaard Hjorth	  Stuart Hughes	  Stefan Hussy	  Ehi Iden	  Satoshi Inoue	  Ivan Ivanov	  Yasufumi Kaneda
  Hiroshi Kasai	  Seong Kyu Kang	  Jun Kurihara	  Takashi Kawata	  Akira Kubota	  Zhao Li	  Tsuyoshi Matsushita	  Yasutomu Nasu	  Joaquim P. Nunes	  Azar Bayramov
  Stefan Olsson	  Takao Onoye	  Francesco Santi	  Manfred Schoch	  Malcolm Staves	  Alison van Keulen	  Kazutsugu Suita	  Tamio Tanikawa	  Lars Tornvig	  Bonnie Yau



Organizing Committee Members

In alphabetical order of last name

Chair Toshihiro Fujita	Jong-ju Ahn	Koji Akamatsu	Masahiko Ariyama	Thomas Bömer	William Cockburn	Philippe Delbecq	Bernie Doyle	Ockert Dupper	Christian Felten	Masahiro Hashiki
Diana Gagliardi	Jillian Hamilton	Eiyu Hayashi	Andresa Hernandes	Satoshi Inoue	Ivan Ivanov	Jens Jühling	Toshiyuki Kajiya	Hiroshi Kasai	Takashi Kawata	Hans-Horst Konkolewsky
Sumiko Kubo	Akira Kubota	Shun'ichi Kuroda	Keisuke Mikawa	Tomohiro Mori	Marijana Z. Mtegha	Tomoe Murakami	Pablo Nieto	Koichi Noda	Akiko Ohara	Mototsugu Ogura
Marcel Le Roux	Koji Sagawa	Yuri Sakamoto	Francesco Santi	Udo Schöpf	Cam Stevens	Kazutsugu Suita	Yoshikazu Tanaka	Tamio Tanikawa	Pernille Thau	Sven Timm
Lars Tornvig	Bernd Treichel	Takehiro Uehara	Yuka Ujita	Nathan Winter	Lars Wismer	Selçuk Yaşar	Hideki Yamada	Mariko Yamada	Bonnie Yau	Winson Yeung
Marc Wittlich										

EXPO 2025 The Days on Safety, 16 to 19 July 2025



HIGH LEVEL SUMMIT	WORLD ASSEMBLY	STANDARDIZATION FORUM	INT'L SYMP
 	 		

Health & Well-being for All

OSAKA, KANSAI, JAPAN

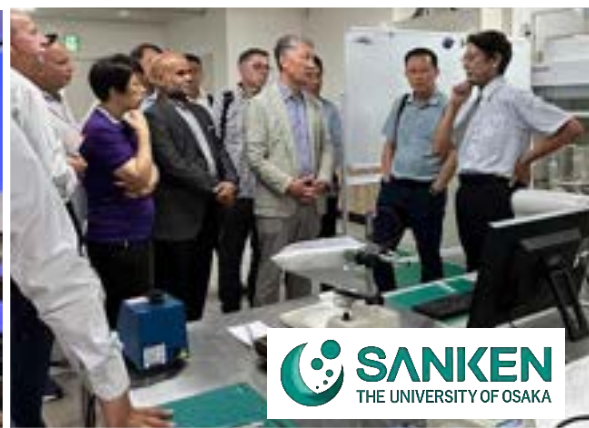


OSIUM	ILO YOUTH CONGRESS	FESTIVAL	EXHIBITION
			

GISHW @EXPO2025	Technical Tours	Party	High-level Summit	World Assembly	Standard-ization Forum	Mukaiadono Safety Award	Finepubble Well-being	Int'l Symposium	ILO Youth Congress	Festival	Exhibition	Baton to Riyadh	Osaka Declaration	Messages
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UNIVERSITY OF OSAKA

Visit to The University of Osaka—a place where cutting-edge knowledge center —where pioneering R&D, advanced clinical facilities, and global



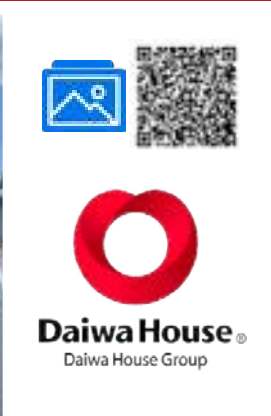
KAWASAKI HEAVY INDUSTRIES

Tour to Kawasaki Heavy Industries, Sysmex, and Medcaroid, assistance systems—driving safety, precision, and well-being.



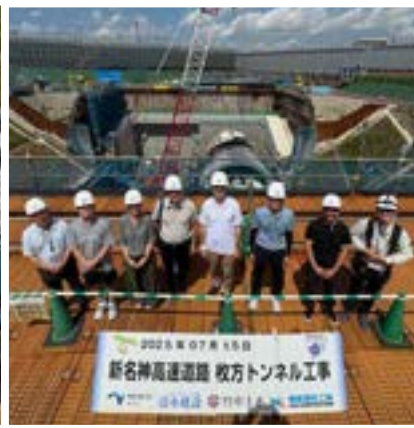
DAIWA HOUSE

Visiting Daiwa House Industry's eco-conscious factory in Nara was an eye-opening The tour also offered a glimpse of Nara's rich cultural heritage, adding a unique



SHIMIZU CORP. & NEXCO

At Hirakata and Kajiwara tunnel construction sites, ICT-powered civil engineering



converges. Our tour included SANKEN's advanced engineering labs and CiDER's infectious disease research collaboration unite under one roof—leaving participants truly impressed by the depth and scale of innovation.



revealed Japan's cutting-edge robotics and healthcare innovations—from industrial automation to surgical. Truly a glimpse into the future!



experience—where advanced technology and sustainability come together to shape the future of housing. touch of tradition to this journey into innovation.



showcased innovations that left participants impressed—redefining safety and efficiency deep underground.





Welcome Reception

JULY 16, 2025



The GISHW Welcome Reception was far more than a social gathering—it symbolized a groundbreaking synergy of expertise. Not only OSHW professionals, but also business leaders, cutting-edge technology researchers and engineers, international rule-making experts, and academia came together to celebrate this unique opportunity to connect and collaborate. The reception received overwhelmingly positive feedback from participants, setting the stage for stronger partnerships and future innovation across industries and beyond,(echoing the spirit of co-creation.)





Prince Ballroom, Grand Prince Hotel Osaka Bay



GISHW @EXPO2025	Technical Tours	Party	High-level Summit	World Assembly	Standard- ization Forum	Mukai dono Safety Award	Finepubble Well-being	Int'l Symposium	ILO Youth Congress	Festival	Exhibition	Baton to Riyadh	Osaka Declaration	Messages
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OPENING July 17, 2025 (MORNING)

Introduction

The High-Level Summit on Safety, Health and Well-being for All, convened on 17 July 2025 during the Global Initiative for Safety, Health and Well-being (GISHW) Days at Expo 2025 Osaka, was a landmark event in the evolution of international dialogue on occupational safety and health (OSH). For the first time in the long history of World Expositions, safety, health, and well-being were not peripheral themes but placed at the very heart of global debate about the future of societies.

Gathered beneath the iconic “Shining Hat” pavilion at Expo 2025, leaders from governments, international organizations, academia, and the private sector came together to affirm a simple but powerful commitment: safety, health, and well-being are not optional aspirations but essential conditions for progress, resilience, and human dignity.

The Summit was part of a broader series of seven major activities within the Safety, Health and Well-being Days, all aligned with the Expo’s overarching theme, “Designing a Future Society for Our Lives.” Its purpose was not only to celebrate achievements to date but to chart a forward-looking agenda where no worker is left behind and where prevention is integrated into the core of every society’s development model.

The organization of the Summit was itself a testimony to collaboration. More than sixty partner organizations contributed their knowledge, creativity, and expertise to co-create the programme. The leadership of the Executive Committee, chaired by Dr. Toshihiro Fujita, and the support of Nikkan Kogyo Shimbun / The Daily Industrial News were instrumental in bringing the vision to life.

From the outset, the Summit was described as “making history.” It was indeed unprecedented: the first OSH-focused gathering at a World Expo. But the emphasis was not on symbolism alone. The focus was firmly directed toward the future – a future where safe and healthy work becomes the cornerstone of sustainable societies.



ORP INTERNATIONAL FOUNDATION

Hans-Horst Konkolewsky
President
International ORP Foundation
(FiORP)

Opening Ceremony

The Opening Ceremony set the tone for the day’s proceedings, combining gratitude, ambition, and a clear call to action. Participants were welcomed warmly, not only for their presence but for their determination to contribute to an unprecedented global dialogue.

Three central messages were conveyed during the opening session:

OSH as a Human-Centred Priority

Safety, health, and well-being were presented as non-negotiable human priorities. They are not technical concerns to be managed on the margins but fundamental preconditions for building societies that value dignity and human life. The Expo theme, “Designing a Future Society for Our Lives,” was translated into concrete terms: a future where prevention is the foundation of progress.

Collaboration Across Borders

The opening underscored the fact that modern challenges transcend borders. From the complexities of global supply chains to the risks of new technologies, no single country or sector can address these issues alone. Strong international partnerships are essential. The Summit was itself proof of the power of collaboration, bringing together a wide diversity of institutions and perspectives.

From Compliance to Culture

While regulations and standards remain indispensable, the ceremony emphasized that true progress requires cultural change. Prevention must become a lived value across workplaces and societies. Moving from compliance to culture ensures that safety and well-being are embedded into everyday practices, leadership decisions, and organizational identity.

The presence of distinguished leaders from Japan and the international community, including representatives of standardization bodies and academia, highlighted the significance of the occasion and reinforced the sense of shared responsibility.

The introduction of the Summit moderator, Amaro Gomez-Robles of Chile, added further weight as he brought both experience and humanity to the task of guiding complex dialogues.

With gratitude expressed to the many partners who had made the event possible, the Summit moved to its central element: three roundtable discussions that would explore the future of safety, health, and well-being from complementary perspectives.



Amaro Gómez-Pablos
TV Journalist
Chile



Toshihiro Fujita
GISHW Executive Committee Chair
Director
The Institute of Global Safety Promotion (IGSAP)
Japan



Jo Cops
President
International Electrotechnical Commission (IEC)
Switzerland



Hans-Horst Konkolewsky
President
International ORP Foundation (FIORP), Denmark



Shosaburo Yasui
Director General Department of Occupational Safety and Health
Ministry of Health, Labour and Welfare, Japan



Sung Hwan Cho
President
International Organization for Standardization (ISO)
Switzerland, South Korea



Hiroyuki Baba
Director General, Department of Commerce, Industry and Labor, Osaka Prefectural Government



Wataru Imamura
Deputy Director-General Innovation and Environment Policy Bureau,
Ministry of Economy, Trade and Industry (METI), Japan



Atsushi Kumanogoh
President
The University of Osaka



GISHW @EXPO2025	Technical Tours	Party	High-level Summit	World Assembly	Standard- ization Forum	Mukaidono Safety Award	Finepubble Well-being	Int'l Symposium	ILO Youth Congress	Festival	Exhibition	Baton to Riyadh	Osaka Declaration	Messages
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Roundtable E 1

How to achieve Safety, Health and Well-being for All



Mohammed Azman Bin Aziz Mohammed
ISSA President,
Malaysia



Nozomi Tomita
Director,
ILO Japan Office



Mario Nava
Director-General, DG Employment,
Social Affairs and Inclusion, European Commission (EC),
EU



Majed bin Ibrahim Alfuwaiz
Secretary-General
National Council for Occupational Safety and Health (NCOSH),
Kingdom of Saudi Arabia



Carsten Stender
Director-General, Federal
Ministry of Labour and Social Affairs (BMAS),
Germany



Shosaburo Yasui
Director General Department of Occupational Safety and Health
Ministry of Health, Labour and Welfare



Roundtable 1: Achieving Safety, Health & Well-being for All

International Organizations and National Authorities

The first roundtable set the strategic foundation of the Summit. It addressed the universal aspiration of achieving safety, health, and well-being for all and explored how international organizations and national authorities can transform principles into results.

Translating Principles into Measurable Results

Participants began by emphasizing that the recognition of safe and healthy work as a fundamental right represents a watershed moment. This principle must now be translated into tangible workplace improvements. Rights without implementation risk remaining symbolic. Effective policies, enforcement mechanisms, and measurable targets are required to make this recognition meaningful.

Reducing Inequalities Across Nations

A strong concern raised was the disparity in capacity across countries. Wealthier nations often possess the infrastructure and resources to enforce high OSH standards, while many developing nations struggle with gaps in enforcement, training, and basic facilities. This inequality cannot be accepted if safety and health are to be universal rights. Collaborative strategies, capacity-building programmes, and technical assistance are essential to bridging these divides.

Harnessing Digitalisation

Digital technologies were discussed as both opportunities and risks. On the one hand, artificial intelligence, robotics, and data analytics can revolutionize prevention, enabling real-time monitoring and predictive analysis. On the other, digitalisation brings psychosocial risks, algorithmic control, and new forms of job insecurity. The challenge is to maximize the benefits of technology while ensuring it enhances – rather than undermines – well-being.

Preparing for Green Jobs

The transition to sustainable economies creates new jobs in renewable energy, environmental management, and circular production. These “green jobs” contribute to climate goals but also involve novel risks, from chemical exposures to new ergonomic challenges. Ensuring that green jobs are also safe jobs must be a guiding principle in shaping the future of work.

Addressing Demographic Change

Demographic change, particularly aging populations, requires prevention strategies that support longer working lives. Ergonomic adjustments, lifelong learning, and occupational health support for older workers are critical. Without such measures, societies risk excluding older workers or placing them at heightened risk.

Roundtable 1 concluded that universal rights must be matched with universal action. The path forward requires global standards adapted to local contexts, supported by inclusive strategies that ensure no worker is left behind.

Roundtable E2



How to develop a socially sustainable Business Culture



Andreas Mainka
CEO
Mainka Bau GmbH & Co. KG,
Germany



Faisal Kazi
President & CEO,
Canada SIEMENS,
Canada



Carsten Stender
Director-General, Federal
Ministry of Labour and Social
Affairs
Germany



Shosaburo Yasui
Director General Depart-
ment of Occupational Safety
and Health
Ministry of Health, Labour
and Welfare



Mario Nava
Director-General, DG Employment,
Social Affairs and Inclusion, European
Commission (EC), EU



Nozomi Tomita
Director,
ILO Japan Office



Majed bin Ibrahim Alfuwaiz
Secretary-General
National Council for Occupational
Safety and Health (NCOSH),
Kingdom of Saudi Arabia



Fuad Mosa
Advisor to His Highness the Minister of Energy and
General Supervisor of the International Project Management
Office - representative of the Ministry of Energy,
Kingdom of Saudi Arabia



Mohammed Azman Bin Aziz Mohammed
ISSA President



Abu Bakar Bin Mohd Nor
Chairman
WSH Council,
Singapore



Tsuyoshi Matsuhita
President, MTG



GISHW @EXPO2025	Technical Tours	Party	High-level Summit	World Assembly	Standard- ization Forum	Mukaidono Safety Award	Finneballe Well-being	Int'l Symposium	ILO Youth Congress	Festival	Exhibition	Baton to Riyadh	Osaka Declaration	Messages
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Roundtable 2: How to Develop a Socially Sustainable Business Culture

Business Leaders

The second roundtable shifted the focus to the private sector, exploring how businesses can move beyond compliance and embed safety, health, and well-being into their corporate cultures.

Zero Harm Culture

One of the central concepts discussed was the “Zero Harm Culture.” Companies like Siemens presented how this philosophy can be embedded across global operations, shaping innovation and accountability. The Zero Harm approach is not only aspirational but practical, setting high expectations that drive continuous improvement.

Proactive OSH Management in High-Risk Environments

Leaders from complex industries, such as the energy sector, described how proactive OSH management is vital. These organizations manage vast and hazardous operations where failure is not an option. Rigorous monitoring, advanced training, and embedding prevention into corporate culture are crucial to maintaining resilience and protecting workers.

Well-being as a Strategic Asset

Japanese companies offered perspectives on embedding happiness and well-being into corporate philosophy. MTG highlighted its approach of viewing employee well-being as the foundation of growth and innovation. This people-first philosophy demonstrated how prioritizing happiness fosters loyalty, creativity, and adaptability, all of which are critical for sustainable growth.

Safety as a Core Identity

Construction sector representatives emphasized that safety is not merely a compliance issue. For some companies, it forms a core part of their leadership identity and decision-making. At Mainka Bau, for instance, OSH is deeply integrated into organizational culture, enhancing both loyalty and resilience.

Extending Responsibility Across Supply Chains

In an interconnected global economy, responsibility for safety and well-being extends beyond company walls. Singapore’s Workplace Safety and Health Council presented how Vision Zero principles are being extended throughout value chains, ensuring that suppliers and partners also uphold high OSH standards. This approach demonstrates how companies can magnify their impact and lead systemic change.

Roundtable 2 highlighted that companies that embed OSH as a strategic and cultural priority are more resilient, innovative, and trusted. Prevention is not a cost but an investment that pays dividends in loyalty, performance, and long-term sustainability.

Roundtable E3



A future Society for our Lives - Safe and Healthy Work



Andreas Mainka
CEO
Mainka Bau GmbH & Co. KG,
Germany



Faisal Kazi
President & CEO, Canada
SIEMENS,
Canada



Carsten Stender
Director-General, Federal Minis-
try of Labour and Social Affairs
(BMAS),
Germany



Shosaburo Yasui
Director General Depart-
ment of Occupational Safety
and Health
Ministry of Health, Labour
and Welfare



Mario Nava
Director-General, DG Employment,
Social Affairs and Inclusion, European
Commission (EC), EU



Nozomi Tomita
Director,
ILO Japan Office



**Majed bin Ibrahim
Alfuwaiz**
Secretary-General
National Council for Occupational
Safety and Health (NCOSH),
Kingdom of Saudi Arabia



Fuad Mosa
Advisor to His Highness the Minister of Energy and
General Supervisor of the International Project Management
Office - representative of the Ministry of Energy,
Kingdom of Saudi Arabia



**Mohammed Azman Bin
Aziz Mohammed**
ISSA President



Abu Bakar Bin Mohd Nor
Chairman
WSH Council,
Singapore



Tsuyoshi Matsuhita
President, MTG



Roundtable 3: A Future Society for Our Lives – Safe and Healthy Work

Joint Dialogue of Authorities and Business Leaders

The third roundtable embodied the Summit's spirit of integration, bringing governments and businesses together to consider how collaboration can shape the future of work.

Moving from Regulation to Trust

While regulation remains indispensable, participants stressed that true transformation requires partnership-driven approaches. Governments and businesses must build trust and co-create solutions rather than rely solely on compliance-based models.

Aligning Roles Between Public and Private Actors

Governments can provide frameworks, incentives, and recognition, while businesses bring innovation, technical expertise, and practical solutions. Aligning these roles ensures that policies are ambitious yet realistic, widely supported, and effectively implemented.

Creating Innovation-Friendly Frameworks

Public policy must enable innovation rather than restrict it. Mechanisms such as recognition schemes, incentive programmes, and platforms for dialogue can empower businesses to lead cultural transformation in prevention and well-being.

Ensuring Human-Centred Progress

The roundtable closed with a powerful reminder: rapid technological, demographic, and environmental change must not overshadow human dignity. The future of work must remain human-centred. Safe, healthy, and inclusive workplaces are the cornerstone of social justice, resilience, and sustainable growth.

Roundtable 3 concluded with consensus that governments and businesses must work together, building societies where prevention is not simply an obligation but a shared value.

July 18, 2025 (MORNING)



Roundtable with Global OSH-Leaders about their critical role in shaping a healthy and sustainable Business Culture



Amaro Gómez-Pablos
TV Journalist
Chile



Vanessa Harwood-Whitcher
Chief Executive
Institution of Occupational
Safety and Health (IOSH), UK



Siong Hin Ho
President
International Association of
Labour Inspection (IALI)
Switzerland



Malcolm Staves
Global Vice President
Health & Safety
L'Oréal, France



Carina Hjørngaard Hjorth
Global Head of Health, Safety,
Environment & S&R Transformation
MAERSK, Denmark



MAERSK



Ralf Franke
Head of Global EHS / HSE
SIEMENS, Germany



Key Messages

From Compliance to Strategic Value

OSH is no longer just about regulations or incident prevention. It is now seen as a strategic driver of value, resilience, and innovation. Companies that embed safety and well-being into their business models gain trust, attract talent, and build long-term sustainability. Prevention is an enabler of competitiveness, not a cost.

The Qualities of Future OSH Leaders

The new leadership profile combines technical knowledge with:

- Influence and storytelling to inspire culture change,
- Collaboration to break down silos,
- Ethical stewardship to balance business with human dignity, and
- Future orientation to anticipate risks linked to digitalisation, AI, and new work models.

OSH leaders are evolving into strategic advisors who shape organizational culture and long-term direction.

Making Safety and Well-being Personal

A recurring theme was the need to humanize safety. When leaders share personal stories, address mental health openly, or participate visibly in safety initiatives, they normalize dialogue and build authenticity. Linking safety to family and personal life makes prevention meaningful and shared across all levels.

Securing Executive Commitment

Sustained executive engagement is essential. Successful strategies include:

- Holding senior leaders directly accountable for outcomes,
- Embedding safety indicators into business reviews,
- Framing OSH in the language of business value, and
- Training leaders on well-being, resilience, and digital safety.

When executives model commitment, prevention cascades naturally through organizations.

OSH Leaders as Agents of Transformation

Ultimately, OSH leaders are more than guardians of compliance. They are agents of organizational and societal transformation, aligning people, business, and sustainability. By embedding well-being into corporate identity, they create workplaces that are resilient, inclusive, and prepared for the challenges of digital and global change.

Conclusion

The roundtable concluded that OSH leadership is undergoing a profound shift:

- From compliance to commitment,
- From obligation to opportunity,
- From risk management to human-centred innovation.

The future of OSH leadership lies in combining professional expertise with influence, empathy, and foresight. By doing so, OSH leaders will not only safeguard lives but also shape healthy and sustainable futures of work worldwide.

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Introduction to World Assembly

A global milestone in Occupational Safety, Health and Well-being (OSH/W)

On 18 July 2025, during the “Days on Safety, Health and Well-being for All” at Expo 2025 in Osaka, Kansai, Japan, a landmark step was taken with the launch of the World Assembly of Occupational Safety, Health and Well-being Professionals and Stakeholders. For the first time in the history of World Expos, occupational safety, health, and well-being were placed firmly on the global agenda, under the Expo theme “Designing Future Societies for Our Lives.”

The launch of the Assembly was more than symbolic. It marked the culmination of years of dialogue and preparation, and the beginning of a new global movement to put safety, health, and well-being at the heart of how societies grow and thrive.

Origins of the Assembly

The idea of bringing the international OSH community together in Japan was first promoted by Dr Toshiro Fujita, Director at the Institute of Global Safety Promotion (IGSAP).

Inspired by the 2022 Vision Zero Summit Japan, which concluded with the Tokyo Declaration on Vision Zero for All, Dr Fujita recognised Expo 2025 as a unique opportunity for global advocacy, knowledge exchange, and alliance-building. With strong backing from the ORP Foundation and its President, Hans-Horst Konkolewsky, this idea gained momentum.

To turn the vision into reality, a dedicated Working Group of global OSH organisations and experts was established, chaired by the Institution of Occupational Safety and Health (IOSH). Over two years, this Working Group convened diverse perspectives, fostered new partnerships, and shaped the agenda that led to Osaka. What began as preparation of eight workshops, became a broad-based movement committed to strengthening international cooperation for the safety, health, and well-being of working people everywhere.



Marijana Zivkovic Mtegha
Institution of Occupational Safety and Health (IOSH), UK



Why the Assembly matters

The urgency is clear. Every year, nearly 3 million lives are lost to work-related causes, while hundreds of millions suffer preventable injuries and illnesses. This toll persists despite decades of professional progress, a wealth of technical knowledge, and international frameworks.

The gap lies not in evidence, but in coordinated action and in persistent gaps in the conditions that make safe and healthy work possible: access to proper training and advice, resources to invest in prevention, strong laws and enforcement, reliable data and modern tools, and a real voice for workers, especially those in vulnerable situations.

The Assembly was created to help address these shortcomings. By bringing together diverse actors across regions and sectors, it provides a platform for coordinated, inclusive, and sustained collaboration. It recognises that occupational safety and health cannot advance in isolation: governments, employers, workers, international organisations, and allied professions must work together.

The Assembly therefore seeks to strengthen connections across the global landscape for safety, health and well-being, helping to align efforts and position these issues not only as workplace imperatives but also as fundamental elements of social justice, sustainable development, and economic resilience.

Building the Roadmap: The Osaka Workshops

A central feature of the Osaka programme was a series of eight expert-led workshops, designed and delivered by Working Group members. These explored the intersections between OSH and the defining transformations of our time:

- OSH in the sustainability agenda
- Digitalisation and the future of work

- Climate change and work
- Global change and individual capability
- Human-centric workplaces and well-being
- OSH metrics for prevention
- The transformation of the OSH profession
- Partnerships with allied professions

Together, these discussions underscored that OSH must evolve alongside shifting technologies, demographics, and environmental realities. They highlighted the importance of cross-sector approaches and the need to embed OSH within broader agendas of sustainable development, digital innovation, and social justice.

The workshops provided the foundation for the Assembly's first 2030 Roadmap, ensuring its work is anchored in evidence-based dialogue and forward-looking priorities.

The Founding Declaration

The culmination of the Osaka programme was the adoption of the Founding Declaration, signed by the first organisations present at Expo 2025. The Declaration sets out a shared vision:

- Safe, healthy and dignified work as an essential element of decent work and future societies.
- OSH professionals, alongside partners, playing a vital role in helping governments and enterprises anticipate risks and protect people.
- Moving beyond compliance to cultures of prevention and well-being.
- Ensuring digital transformation and other global shifts are approached with people-first principles, transparency, and trust.
- Accelerating progress through international cooperation and knowledge-sharing.

The signatories committed to:

- Promote good practice, informed by science, ethics, and experience.
- Support and empower future leaders, ensuring diversity and innovation.
- Collaborate internationally, sharing knowledge, data, and tools.
- Strengthen solidarity, particularly where resources are most limited.
- Develop a shared 2030 Roadmap, turning the vision of Osaka into measurable action.

Looking forward

The World Assembly is not a one-time initiative but a continuing platform for collaboration and leadership. The World Assembly community will continue to reflect on and share progress made against the shared priorities outlined in this Declaration, with progress expected to be revisited collectively at the GISHW Days in Riyadh, Saudi Arabia, in 2030. Thematic groups and joint initiatives will sustain momentum between global gatherings.

The Assembly marks an important step forward in strengthening collaboration and dialogue across the global OSH community. It builds on the long-standing work of the ILO, ISSA's Vision Zero strategy, and other international efforts, while providing a platform to connect initiatives and shape future directions collectively.

By signing the Founding Declaration in Osaka, organisations and institutions affirmed a shared pledge to place safety, health, and well-being at the centre of economic, social, and environmental development. The Assembly offers a forward-looking contribution to the UN 2030 Agenda for Sustainable Development and to the creation of societies that are safe, healthy, inclusive, and resilient.



GISHW @EXPO2025	Technical Tours	Party	High-level Summit	World Assembly	Standard- ization Forum	Mukaidono Safety Award	Finepuble Well-being	Int'l Symposium	ILO Youth Congress	Festival	Exhibition	Baton to Riyadh	Osaka Declaration	Messages
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Panel Discussion: The Role of Safety, Health and Wellbeing in Designing Future Society for our Lives – Outcomes from the World Assembly Workshops



Marijana Zivkovic Mtegha
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Vanessa Harwood-Whitcher
Chief Executive
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Kelly Nicoll
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Bernd Treichel
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Andrea Holloway
Occupational Hygienist Lead,
WHS Reform
Rio Tinto



Christopher Davis
Thought Leadership Manager
Institution of Occupational Safety and Health (IOSH)



Guillaume Lachapelle
Chief Oral Examiner
Canadian Registration Board of Occupational Hygienists



Lars Tornvig
Director
Strategic health & safety,
Human House



Dee Arp
Vice President
International Network of Safety and Health Practitioner Organizations (INSHPO)



Matthew Olota
President-Elect, International Occupational Hygiene Association (IOHA)



Michelle Garner-Janna
Chief Experience Officer & Co-Founder
What Works Institute



The first Joint Declaration on International Workplace Safety, Health, and Well-being Adopted at the World Assembly of GISHW



List of Founding Signatories (in alphabetical order)

1. ACWA Power
2. Asia Pacific Occupational Safety and Health Organization (APOSHO)
3. European Network Education and Training in Occupational Safety and Health (ENETOSH)
4. European Network of Safety and Health Professional Organisations (ENSHPO)
5. The Finnish Institute of Occupational Health (FIOH)
6. GalaxyEDGE Safety Inc
7. Global Solutions Inc.
8. Human House
9. International Association of Labour Inspection (IALI)
10. International Commission on Occupational Health (ICOH)
11. International Ergonomics & Human Factors Association (IEA)
12. The Institute for Global Safety Promotion (IGSAP)
13. International Network of Safety and Health Professional Organisations (INSHPO)
14. International Occupational Hygiene Association (IOHA)
15. Institution of Occupational Safety and Health (IOSH)
16. Institution of Occupational Safety and Health Management, Mauritius (IOSHM)
17. Lloyd's Register Foundation
18. Malaysian Society for Occupational Safety and Health (MSOSH)
19. National Institute of Advanced Industrial Science and Technology (AIST)
20. National Safety Council (NSC)
21. The National Examination Board in Occupational Safety and Health (NEBOSH)
22. International ORP Foundation / Fundación Internacional ORP
23. Occupational Safety and Health Africa Foundation (OSH Africa)
24. Pocketknife Group (PKG)
25. Le Réseau d'échange de la francophonie en santé, sécurité et santé environnementale (Re-flex) /
The Francophonie Exchange Network in Health, Safety and Environmental Health
26. The Royal Society for the Prevention of Accidents (RoSPA)
27. The Safety and Health at Work Promotion Association Thailand (Shawpat)
28. Siemens AG
29. What Works Institute



World Assembly
OSHWPS



Founding Declaration **World Assembly of Occupational Safety, Health and Well-being** **Professionals and Stakeholders**

Adopted at Expo 2025, Osaka, Kansai, Japan — 18 July 2025

Working Together for Safer, Healthier, Sustainable Workplaces Around the World

In an era of rapid change, creating safer, healthier, and more sustainable work is a collective responsibility. As occupational safety, health and well-being (OSH) professionals, experts, organisations, and associations, we gathered in Osaka, Kansai, Japan, during Expo 2025 on the occasion of the “Days on Safety, Health & Well-being for All” (16–19 July 2025), organized by the Global Initiative for Safety, Health, and Well-Being at Work at Expo 2025 and Beyond (GISHW). Our aim was to connect and reflect on salient issues facing the profession, and to look ahead to the future.

The Expo 2025 theme, “Designing Future Societies for Our Lives”, and its subthemes – Saving Lives, Empowering Lives, and Connecting Lives – are closely aligned with the core values and principles of our field. We also look ahead to Expo 2030, themed “The Era of Change: Together for a Foresighted Tomorrow”. This decade is a vital opportunity to raise standards for safety, health, and well-being worldwide.

We are united by a clear message: safety, health and well-being at work matter more than ever. They’re not just part of decent work – they’re essential to the future societies we all want to live and to work in.

Why Now?

The world of work is shifting – driven by digital transformation, climate change, and demographic shifts, complicated by global uncertainty. These changes bring both risks and opportunities. We know that safe and healthy working environments help people to

thrive at work; businesses to perform better and be more productive; and communities to stay resilient and cohesive.

We also recognise the growing importance of linking occupational safety, health, and well-being with wider global goals – like the UN's 2030 Sustainable Development Agenda, decent work, social justice, and equity. Safety, health and well-being aren't just workplace issues – they're societal issues.

We are not starting from scratch. We're building on over a century of global progress: the foundational work of the International Labour Organization (ILO), the momentum of the ISSA's Vision Zero strategy, and key frameworks like the ILO Global Strategy on Occupational Safety and Health 2024–2030, the Tokyo Declaration on Vision Zero for All (2022), and decades of professional cooperation and innovation.

Our Shared Commitments

We believe the future of work must be:

- Safe and healthy – where harm is prevented and people are protected and supported throughout their lives: before, during, and after being in the workforce
- Inclusive and fair – where all workers in all jobs are treated equitably and where no one is left behind
- Decent and Meaningful – where work itself is good, has meaning, and makes a positive contribution to people's lives
- Forward-looking – where new risks are anticipated, and new tools used responsibly
- Connected – where there is stronger collaboration and learning across countries, disciplines, and sectors

We Declare That:

1. Safety, health and well-being are core elements of good, decent work—and should be at the heart of how we design and shape future societies
2. Safety, health and well-being professionals and their allies play a vital role in helping businesses and governments, manage risks, and support people in an increasingly complex world
3. We need to move from compliance-only approaches to cultures of prevention and well-being, using proactive strategies, inclusive design, and smarter systems
4. The digital transformation of work – AI, automation, data – must be people-first, transparent, and built on trust
5. International cooperation and capacity are key. A globally connected safety, health, and well-being community can do more together than any of us can do alone

We Agree To:

1. Work together to promote and influence good occupational safety, health and well-being practice, informed by science, ethics, and experience.
2. Focus on both the present and the future of the safety, health, and well-being profession, through programs and partnerships that develop and empower future leaders, create diversity of perspectives, and generate innovative ideas.

3. Collaborate with national and international bodies to share good safety, health, and well-being practices, tools models, data, and expertise
4. Support each other across regions and professional boundaries, especially where resources are limited and support is needed most.
5. Create a shared 2030 Roadmap to take forward the ideas and energy from Osaka and turn them into actions.

A Forward-Looking Pledge

This declaration is not just a statement, but a beginning.

Our goal is to sustain dialogue, expand participation, and build lasting momentum. To support this, we are establishing the **World Assembly of Occupational Safety, Health and Well-being Professionals** – a dynamic and inclusive platform for global collaboration, shared learning, and collective leadership.

We intend to convene periodically in the years leading up to Expo 2030, particularly during major international OSH events. Between these gatherings, our efforts will continue through the work of dedicated thematic groups and collaborative initiatives.

Together, we are committed to achieving tangible progress – through the exchange of knowledge, the strengthening of professional networks, and the advancement of safer, healthier, sustainable and more equitable workplaces for all.

Adopted in Osaka, Japan – 18 July 2025

On behalf of the participants of the World Assembly at GISHW “Days on Safety, Health & Well-being for All”

16C1



The Future of OSH within the Sustainability Agenda

Moderator	Rapporteur	People Sustainability: Why Sustainable Business is Becoming as Usual	Realizing the potential for occupational safety and health to deliver socially sustainable workplaces	Safety as enabler of green transition	Human capital I motion: Road risk in the OSH sustainability agenda
 Stuart Hughes Immediate Past President IOSH/Head of Health & Safety Mercedes-AMG Petronas Formula One Team, UK	 Kelly Nicoll President Institution of Occupational Safety and Health (IOSH), UK	 Kathy Seabrook CEO&Founder Global Solutions, Inc, USA	 Vanessa Harwood-Whitcher Chief Executive Institution of Occupational Safety and Health (IOSH), UK	 Dagmara Karbowska Senior Programme Manager Lloyds Register Foundation, UK	 Becky Hickman Chief Executive Officer The Royal Society for the Prevention of Accidents (RoSPA) UK
Moderator	Rapporteur	People Sustainability: Why Sustainable Business is Becoming as Usual	Realizing the potential for occupational safety and health to deliver socially sustainable workplaces	Safety as enabler of green transition	
 Francesco Santi President European Network of Safety and Health Professional Organizations (ENSHPO), Italy	 Kelly Nicoll President Institution of Occupational Safety and Health (IOSH), UK	 Michelle Garner-Janna Chief Experience Officer & Co-Founder What Works Institute, USA	 Katerina Marozava ESG and EHS Advisor Associazione Italiana Ambiente e Sicurezza (AIAS), Belarus	 Andresa Hernandez Global Vice President of Safety SIEMENS, Brazil	

Summary

1. OSH is Not Just Part of Sustainability - It Is Sustainability

Across all panellist contributions, a clear and urgent message emerged: Occupational Safety and Health (OSH) is central - not peripheral - to sustainable development. Whether it's enabling the green transition, managing global supply chain risks or ensuring decent work, no project or business can be deemed truly sustainable without the protection, health and well-being of workers.

2. Climate Change is a Human Safety Crisis and OSH is on the Frontline

With over 40 million displaced and thousands dead due to extreme weather in the past year alone, climate change must be reframed as a human safety issue. OSH professionals are not only stewards of worker well-being but are also key enablers in the fight against climate-accelerated risks - from heat stress to disaster response, to worker displacement.

3. Driving for Work is a Core Sustainability Issue

Driving-related incidents are one of the most common causes of workplace fatalities, particularly in low- and middle-income countries. Yet this issue is often missing from sustainability conversations. Road safety must be recognised as a strategic and transferable pillar of OSH within ESG, with investments in driver training and fleet safety yielding both social and business value.

4. OSH Needs to Speak the Language of Sustainability - and Lead It

To better embed OSH in global sustainability agendas, OSH professionals must evolve their language, metrics and strategies. Shifting from lagging to leading indicators, promoting worker well-being and leveraging human capital metrics can help align OSH with ESG priorities. The integration of safety evidence and risk intelligence into business decisions is critical.

5. Collaboration, Standardisation and Inclusion Are Key to Progress

Creating truly sustainable workplaces requires cross-sectoral collaboration, consistent and comparable metrics and the inclusion of voices from vulnerable sectors. OSH professionals, policymakers, investors and engineers must work together to embed safety into the DNA of sustainable transitions - especially in global supply chains where risks are greatest.

16C2



The Evolution of Human-Centric Workplaces: How to advance workplace well-being

Moderator What is the business case for wellbeing?	Moderator Background to Wellbeing	Rapporteur	What is the business case for wellbeing?
 Permille Thau Vice President of Global Services Human House, Denmark	 Christopher Davis Thought Leadership Manager, Institution of Occupational Safety and Health (IOSH), UK	 Guillaume Lachapelle Registered manager for Industrial Hygiene, Alcoa, Canada	 Dheera Phong-anant Board Committee Adviser Safety and Health at Work Promotion Association (SHAWPAT), Thailand

Panel Discussion: What are the components of good wellbeing programs?

 Permille Thau Vice President of Global Services, Human House, Denmark	 Stine Moesmand Organisational Psychologist & Head of Department Human House, Denmark	 Christopher Davis Thought Leadership Manager, Institution of Occupational Safety and Health (IOSH), UK	 Malcolm Staves Global Vice President Health & Safety L'Oréal, France	 Thomas Hejlskov Hansen Director of Health, Novo Nordisk, Denmark
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Summary

- Wellbeing has to be embedded strategically, moving it from a reactive and sometimes disjointed pursuit to something which is firmly integrated in business planning, and which considers the meaning of wellbeing at organisational, operational, and individual levels. There is a clear need for approaches to wellbeing that balance clearly defined strategic approaches at the broad level and very human-centred approaches at the individual level.
- Stakeholder engagement and collaboration are what appear to be the essential next step for the wellbeing agenda. Effective collaboration between departments such as HR, Health & Safety, and others was seen as essential. Panelists noted that initiating small, successful pilots can help build momentum and attract broader organizational support. Identifying internal champions with personal connections to wellbeing issues was also recommended. A shift in mindset was encouraged—from highlighting problems and gaps to showcasing success stories and scalable solutions.
- Training and involving managers was perceived to be hugely important given their contribution to worker wellbeing. Managers are typically evaluated on output, not on how they support employee wellbeing. More broadly, all levels of leadership have to understand and be able to act on wellbeing priorities. Without clear accountability and consequences, wellbeing initiatives often lack follow-through.
- Effective wellbeing programs should be designed to target multiple levels: organizational context, leadership quality, team dynamics, and individual needs. Leaders were described as 'hosts of a party' — responsible for creating a supportive and engaging environment.
- Beyond the workplace, external influence from investor relations and benchmarking groups was identified as a powerful driver for senior leadership engagement. Companies are increasingly being evaluated on mental wellbeing performance, which can influence investment decisions and corporate reputation. Nevertheless, progress will rely heavily on how these higher-level stakeholder groups articulate holistic views of wellbeing in the standards they set.



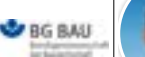
16S1



The Future of Work and Workplaces: Harnessing Digitalisation for Safety, Health and Well-being

Moderator	Moderator	Rapporteur	Digital Transformation I: Rethinking Prevention with AI	Digital Strategy for Our Customers
  Sven Timm Director of Central Prevention Div, DGUV, Germany	  Cam Stevens CEO Work Design & Safety Transformation Coach, Pocketknife Group, Australia	  Bernd Treichel Senior Officer in Social Security, ISSA, Switzerland	  Jens Jühling Chair of the ISSA Special Commission on Prevention/BG-ETEM, Germany	  Jacob Kort Co-Head Digital Transformation & Corporate Development BG BAU, Germany
Agentic AI in the era of evolving social security systems	The Inspector of the Future	OSH Immersive Training through Head-Mounted Device/CAVE and AI-Powered Motion Tracking for Balance Training	Making workplaces safer by using AI: assistance system on a sliding table saw	Ergonomic Risk Assessment with Inertial Measurement Units
  Rainer Binder Global Managing Director Accenture, Germany	  Benjamin Reiser CEO BG-Phoenics GmbH, Germany	  Winson Yeung Principal Consultant Occupational Safety and Health Council (OSHC), Hong Kong Special Administrative Region, China	  Thomas Bömer Deputy Head of Department, IFA, Germany	  Christoph Schiefer Section Manager, IFA, Germany

Panel Discussion: Exploring the Greatest Opportunities for AI in Occupational Safety and Health

  Jennifer Papantuono Advisor for International Relations, BG ETEM Germany	  Rainer Binder Global Managing Director Accenture, Germany	  Jacob Kort Co-Head Digital Transformation & Corporate Development, BG BAU, Germany	  Winson Yeung Principal Consultant Occupational Safety and Health Council (OSHC), Hong Kong Special Administrative Region, China	  Mona Mustafa Director, MSc Human Resource Management (HRM) Program, the University of Birmingham, UAE	  Terence Lui Chief Executive Officer Varadise Limited, Hong Kong Special Administrative Region, China
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Moderator	Co-creating the Future of Construction with AI-Powered Centralized Management Platform	Digital Tools for Sustainable Sectors: Energy and Agriculture in Transition	Secure data Infrastructure in the All-Electric Society	Leveraging Artificial Intelligence for a Sustainable Construction Future in the UAE	The Future of OHS Regulation in the AI Era: A Japanese Perspective- Results of the social survey conducted in Japan
  Sabine Herbst Deputy Head of Section Strategic Co-operation, DGUV, Germany	  Terence Lui Chief Executive Officer Varadise Limited, Hong Kong Special Administrative Region, China	  Thomas Zdzienkowski Chief Executive Officer (CEO), Top Farms International Ltd., Poland	  Michael Teigeler Managing Director DKE Standardization, Germany	  Mona Mustafa Director, MSc Human Resource Management (HRM) Program, the University of Birmingham, UAE	  Takenori Mishiba Professor of Law, Kindai University, Founder of Japan Association of Occupational Health Law, Japan

16S1 Summary

- 1. AI-enabled prevention is moving from pilot to practice.
Live examples demonstrated practical applications across prevention and oversight: predictive risk analytics using secure company data, decision support for high risk activities, and collaborative GenAI use cases layered on existing safety management system repositories. Participants agreed these tools can reduce time-to-insight and strengthen control verification when deployed against clearly defined problems.
- 2. Strong governance is the licence to operate.
Adoption of AI and other emerging technologies must be anchored in transparent data stewardship, clear human oversight and proportionate regulation to manage bias, privacy, liability and AI model unpredictability. The panel emphasised “responsible innovation” as essential for trust with workers, regulators and the public, with ethics frameworks positioned alongside technical controls for any deployment.
- 3. Skills and capability will determine impact.
Digitalisation increases the reliance on practitioner capability—both technical (data literacy, prompt/verification skills) and human (adaptability, sense-making). Language models can also bridge multilingual and jargon barriers, improving inclusion and comprehension across diverse workforces and accelerating safe adoption at the frontline.
- 4. The innovation pipeline is robust—and tangible.
Demonstrations included exoskeletons for task-demand reduction, an AI-assisted circular saw that arrests in sub-20 ms on hazard detection, posture/movement analytics and immersive XR learning environments. Collectively, these showed immediate pathways to reduce exposure, build competency and verify critical controls.
- 5. Momentum and optimism are high, but evidence must keep pace.
Participants expressed strong confidence that AI can improve OSH outcomes (≈4.2/5 sentiment), coupled with a call for shared evaluation criteria, cross-sector pilots and comparable metrics to separate signal from hype. Establishing common measures of effectiveness was viewed as key to scaling responsibly and earning durable stakeholder support.



16S2

How is the OSH profession transforming?

Moderator	Rapporteur	Case Study: Lesson's Learned from BC's Manufacturing Sector	OSH Transformation in Action: The Mauritius Experience	OSH Profession Development
 Marilyn Hubner OHS Body of Knowledge (BoK) Manager International Network of Safety and Health Practitioner Organizations (INSHPO), Australia	 Dee Arp President, International Network of Safety and Health Practitioner Organizations (INSHPO), UK	 Lisa McGuire CEO, GalaxyEDGE Safety Inc., Canada	 Amiirah Peerbaccus Executive Committee Member Institution of Occupational Safety & Health Management (IOSHM), Mauritius	 Francesco Santi President, ENSHPO, Italy
 Stuart Hughes Immediate Past President IOSH/Head of Health & Safety Mercedes-AMG Petronas Formula One Team, UK	 Waddah S Ghanem Al Hashmi Chairman Federal Committee for Occupational Health and Safety, UAE			

16S2 Summary

The World Assembly Working Group 7 explored the transformation needed for organisations to evolve from a compliance-driven safety culture to one rooted in care, compassion, and co-creation. This transformation is framed through the “Journey of the Cs”—a conceptual pathway that begins with compliance and control and ends with compassion and care -shared ownership of wellbeing. It’s not just a shift in systems; it’s a shift in soul.

A culture of compliance is a workplace mindset focused on meeting minimum legal, regulatory, and procedural safety requirements. It’s driven by rules, audits, and doing things because we have to. The emphasis is often on checklists over people, and responses are reactive, triggered by incidents rather than anticipation. Safety is seen as someone else’s job, typically the OSH professional, and the environment can easily become a blame culture.

In contrast, a culture of care is a workplace mindset where health, safety, and wellbeing are deeply valued and embedded. It’s driven by a genuine concern for people. In this culture, people do things because they want to, because they value the outcome, and because it’s the right thing to do. There is trust, authenticity, leadership commitment, and shared values. People speak up because they care. Leaders lead by example. Psychological safety is strong. Prevention is proactive. Learning is continuous. And ownership of safety exists at every level.

This journey is about change. It demands courage to let go of rigid structures, curiosity to explore new ways of working, and commitment to lead with clarity. It’s about recognising that the future requires new skills—emotional intelligence, adaptive leadership, and the ability to navigate complexity. We must become future-competent, not just technically compliant.

But this path is not easy. Many organisations face deep structural challenges. Governance systems are often designed to enforce compliance—not cultivate care. There’s an over-reliance on audits, checklists, and incident metrics that miss the human experience. Psychological safety, trust, engagement, and wellbeing are hard to measure, yet they matter most. Traditional metrics don’t capture the emotional climate or health of a workplace.

Workers face challenges too. Moving from passive rule-following to active participation requires a mindset shift. Many have been conditioned to “just do the job” without ownership or voice. Building psychological safety takes time and trust—especially in environments where speaking up once led to blame or dismissal. Workers must believe that care is genuine, that their contributions matter, and that their vulnerability will be met with respect, not risk. This transformation asks them to engage, reflect, and co-create—not just comply.

Leadership must evolve. The old model of “we get it done” must give way to “we care.” Authentic leadership is not about command and control—it’s about trust, guidance, and support. Leaders must be emotionally intelligent and willing to show vulnerability. They must create space for dialogue, listen deeply, and model the behaviours they wish to see. This is how cultures of care are built—from the top down and the bottom up.

Moving to a culture of care brings better outcomes. It improves safety performance, strengthens trust, and fosters loyalty. Organisations become more resilient and sustainable because people feel valued and heard. Innovation flourishes when psychological safety is high, and learning becomes continuous when mistakes are met with curiosity—not punishment. Care is not a cost—it’s a catalyst.

And beyond safety, a culture of care supports mental health, inclusion, and overall wellbeing. It creates workplaces where people feel seen, respected, and empowered. It embraces diversity, honours lived experience, and builds belonging. When care is embedded in the culture, people don’t just show up—they thrive. Importantly, the shift from compliance to care doesn’t mean abandoning regulations—it means embracing them and going beyond. It’s about creating environments where people show up for each other because they want to, not because they have to. It’s about intrinsic motivation, shared purpose, and human connection.

To measure progress, organisations must look beyond lagging indicators like injury rates and start tracking leading indicators that reflect participation, engagement, and proactive care. These can include: number of workers involved in safety committees and initiatives; number of safety suggestions submitted and acted upon frequency and quality of safety conversations and observations; instances of people speaking up and raising concerns; feedback loops and follow-up actions taken. These indicators reflect a living culture—one where safety is not a checkbox but a shared value.

To move forward, we must embrace collaboration. We are not alone—we are bridges connecting different islands of expertise, experience, and empathy. Communication becomes the lifeblood of transformation. Safety is no longer a top-down mandate; it’s a value—a shared responsibility built through dialogue, listening, and co-design. And at the heart of it all is compassion. Amidst the rise of technology and AI, the power of the story—the personal touch—remains irreplaceable. Compassion is not a soft skill; it’s a strategic imperative. It drives engagement, retention, resilience, and innovation.

Call to Action

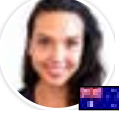
- Let’s move beyond compliance. Let’s build cultures where people care, connect, and co-create.
- Start with compassion. Lead with courage. Measure what matters.
- Build cultures where people don’t just survive—they thrive - because the future of safety—and the soul of our organisations—depends on it.

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16G1



Climate Change and the Future of Work

Moderator	Moderator	Rapporteur	Heat Stress: Workers' Health and Potential in a Warming World	Heat Stress: Escalating Heat Stress and Health Challenges
  Martin Hogan Vice President International Commission on Occupational Health (ICOH), Ireland	  Andrea Hiddinga-Schipper Past President International Occupational Hygiene Association (IOHA), The Netherlands	  Andrea Holloway IOHA Member, Australian Institute of Occupational Hygienists	  Jason LEE Kai Wei Associate Professor Direc- tor, Heat Resilience and Performance Centre, Yong Loo Lin School of Medi- cine, National University of Singapore	  Seichi Horie University of Occupational and Environmental Health, Japan
Heat Stress: Health Sys- tem Preparedness For Heat exposures at Work- place	Flooding and emergency response workers: What should we do to protect the health of public em- ployees on the front lines of disaster response?	Flooding and emergency response workers: Strat- egies for coping with Cli- mate Change and Extreme Weather in Hong Kong and Greater Bay Area	How can we drive focus on ESG priorities beyond climate change: ESG - Environmental, Social & Governance	
  Vidhya Venugopal Professor, Faculty of Public Health, Country Director, NIHR GHRC NCD-EC, SRI- HER, India	  Yoko Tsurugi Director of Aso Public Health Center/Occupational health physician of Aso area development bureau, Kumamoto, Japan	  Bonnie Yau Executive Director Occupational Safety and Health Council (OSHC), Hong Kong Special Admin- istrative Region, China	  Candice Dix Sustainability Assurance Manager, Rio Tinto, Australia	  Jaime Lim Director Ministry of Manpower, Singapore

Summary

This workshop explored the intersection of climate adaptation and occupational safety and health (OSH), highlighting the interconnectedness of workplace challenges and sustainable solutions. The event featured expert presentations and interactive discussions on health effects and government and industry perspectives.

Dr Jason KW LEE (FACSM) from Singapore introduced the physiological responses to heat stress and the Heat Safe Project, which translates research into policies and audits to protect workers from extreme heat.

Dr Seichi Horie from the University of Occupational and Environmental Health in Kitakyushu Japan discussed climate change impacts on Japan's aging workforce, noting rising heat-related illnesses. He highlighted the Industrial Safety and Health Regulation Amendment, requiring employer response protocols when Wet Bulb Globe Temperature (WBGT) reaches $\geq 28^{\circ}\text{C}$ or ambient temperature $\geq 31^{\circ}\text{C}$ for ≥ 1 hour with heatstroke signs.

Vidhya Venugopal, Professor NIHR EC-NCD India and member of La Isla network addressed extreme heat exposure in India's informal sector, where millions face life-threatening conditions. She emphasized the need for Heat-Health Action Plans (HHAPs) with early warnings, rest cycles, shade, hydration, and stronger integration of health, labour, and climate policies.

The second part of the workshop was on emergency preparedness in relation to climate change.

Dr. Yoko Tsurugi (Kikuchi Public Health Centre) focused on occupational health during disasters, using the 2020 Kuma River flood as a case study. Public workers, who are both responders and victims, face overwork, poor rest, emotional strain, and weak occupational health support systems.

Ms. Bonnie Yau (OSHC, Hong Kong Special Administrative Region, China) outlined preparedness strategies for climate change and extreme weather in Hong Kong and Greater Bay Area, including subway flood defences, power infrastructure protection, landslide prevention, deploying robot to replace human work in high-risk areas, utilizing technology for monitoring and disaster preparedness. Public awareness and village-level preparedness were shown to reduce fatalities.

Finally, Candice Dix (Rio Tinto, Australia) and Jaime Lim (MOM Singapore) discussed the integration of OSH within Environmental, Social, and Governance (ESG) frameworks, emphasizing the need for interdisciplinary, data-driven approaches to embed health, safety, and well-being into ESG strategies and sustainability reporting. The presentation concluded with a call to action for individuals and businesses to drive sustainability initiatives and envision a future that prioritizes safety, health, and well-being for current and future generations.

The main insights or conclusions reached during the workshops.

1. Promote interdisciplinary partnerships to anticipate climate-related health risks (policy, governance, urban planning, public health, medical).
2. Promote a two-pronged approach (both educational initiatives and regulatory enforcement) targeted particularly toward countries with low- and middle-income levels. Locations with resource constraints and systemic challenges may make these strategies especially impactful.
3. Develop culturally appropriate, context-sensitive heat health alerts.

These need to be tailored so they make sense, are trusted, and are doable for the specific community i.e. limited electricity, listen to radios and don't have mobiles.

4. Inexpensive interventions such as worker education and appropriate heat warning can have significant positive impacts on morbidity and mortality.

5. Improve disaster preparedness for public employees and emergency responders. In many LMICs, infrastructure is weaker, and disasters can overwhelm systems quickly.

Well-prepared public employees and responders can reduce casualties, protect essential services, and restore order faster. It also builds public trust, since people see the government as reliable in times of crisis.

It also builds public trust, since people see the government as reliable in times of crisis.

16G2



Leading with OSH Metrics – the way forward to better prevention

Moderator	Moderator	Rapporteur	Proactive Risk Management Using Leading OHS Indicators	Safety Performance Indicators- Is it a good idea to measure safe driving by the number of speed tickets at the end of the month?
 Duncan Spencer Head of Advice and Practice, Institution of Occupational Safety and Health (IOSH), UK	 Lars Tornvig Director Human House, Denmark	 Michelle Garner-Janna Chief Experience Officer & Co-Founder What Works Institute, USA	 Johnny Dyreborg Senior Researcher, National Research Centre of the Working Environment (NFA), Denmark	 Christopher Spalek Managing Director, People Safety Solutions, Germany
Leading with OSH Metrics – the way forward to better prevention – The Case of ROCKWOOL	Sabentis: AI-Powered Predictive Analytics in Real Time	OSH Metrics: A global policy perspective and the societal impacts	Health Safety & Security in ADB Supported projects	
 Camilla Louise Ransfort Global Senior Director Safety, Health and Environment, ROCKWOOL Group, Denmark	 Pablo R. Nieto CFO, Sabentis (Easy Tech Holging Group), Spain	 Bernd Treichel Senior Specialist in Prevention, ISSA Switzerland	 Felix Nii Tetty Oku Principal Safeguards Specialist, ADB, Ghana	

Summary

1. A Shift from Lagging to Leading Metrics is Essential for Prevention

Traditional lagging indicators (like injury rates) are important for historical benchmarking, but they are insufficient for driving proactive safety management. Leading indicators provide further opportunity to identify the impact of positive and negative changes prior to their realisation. This fits better with the international drive to adopt a prevention first strategy when it comes to managing health and safety risk.

2. OSH Metrics Must Align with Organisational Maturity

Metrics should evolve in step with an organisation's safety maturity, from compliance-driven approaches to systems-based models and, ultimately, safety culture. Measurement strategies must be tailored: what works for a mature organisation focused on culture may be inappropriate for one still focused on compliance. This calls for flexible frameworks and context-sensitive indicators.

3. Stakeholder Expectations Are Shaping the Future of OSH Metrics

Boards, investors, regulators, and even society, increasingly demand transparency and meaningful metrics that go beyond compliance. OSH performance is now viewed as integral to broader ESG and sustainability efforts. Meeting these demands requires organisations to integrate safety data into their overall business strategy, not treat it as a standalone report.

4. Data Quality, Interpretation, and Presentation Matter More Than Ever

Having data is not the same as using it effectively. Poor-quality or misinterpreted metrics can lead to misguided decisions. Additionally, metrics need to be presented differently to different audiences—executives, operational teams, regulators - to drive engagement, understanding and action. Storytelling, economic framing and real-time visualisations can enhance impact.

5. Technology, Especially AI, Brings Opportunities—and Responsibilities

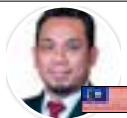
AI and digital tools are increasingly used to collect and analyse safety data. While they can enhance validation and forecasting, they are not a substitute for human judgment. Overreliance on AI without critical oversight may lead to issues like data bias or overfitting. There is a growing need for OSH professionals to develop digital fluency and ethical awareness to use AI responsibly.



16H1



The influence of global change on individual capability in the modern workplace

Moderator	Moderator	Rapporteur	Towards a Safe and Healthy Future of Work- Evaluation or Revolution?	Safety Under Pressure: Delivering in the Climate Economy
  Duncan Spencer Head of Advice and Practice Institution of Occupational Safety and Health (IOSH), UK	  Ulrike Bollmann President, The European Network Education and Training in Occupational Safety and Health (ENETOSH), Germany	  Christopher Davis Thought Leadership Manager Institution of Occupational Safety and Health (IOSH), UK	  James Pomeroy Director, Global Health and Safety Leader ARUP, UK	  Simon Watson Chief of HSSE, ACWA Power, UK
How Digitalization Is Transforming the World of Work and Its Implications for OSH Professionals	Emergent Competency Needs and Development Pathways for OSH Practitioners in Malaysia	Ethics: The Hidden Key to Protecting Workers in Times of Change		
  Tim Tregenza Senior Network Manager European Agency for Safety and Health at Work (EU-OSHA), EU	  Ahmad Fakhru Anuar Bin Ismail President Malaysian Society for Occupational Safety and Health (MSOSH), Malaysia	  Evelien Jonkeren Senior Expert International Collaboration, ISSA Section on Prevention in Transportation/ BG Verkehr, Germany		

Summary

In light of ecological, technological and social changes, the demands placed on occupational safety specialists are increasing dramatically. But what competences do experts in safety, health and well-being at work need? Traditional competency standards or detailed job descriptions are no longer sufficient in the face of increasing acceleration and uncertainty.

This was precisely the starting point for the workshop ‘The influence of global change on individual capability in the modern workplace’, held on 16 July 2025, at the World Assembly during the Days on Safety, Health & Well-being for All in conjunction with the EXPO 2025 in Osaka, Japan.

This workshop, organised by the Institution of Occupational Safety and Health (IOSH) in collaboration with the European Network Education and Training in Occupational Safety and Health (ENETOSH), not only discussed future competence requirements against the backdrop of challenges posed by climate change, digitalisation and ethical issues, but also worked with participants to develop a competence “tableau”.

James Pomeroy, Arup, United Kingdom, opened the discussion with provocative ‘what if’ scenarios and challenged traditional definitions of what the occupational safety and health professional is, does and stands for. He called for a redefinition of occupational safety and health, with less emphasis on specific skills and expertise and more on flexibility, adaptability and uncertainty. He demonstrated that occupational safety and health plays a central role in business transformation, the green transition and social justice. Simon Watson, ACWA Power, Kingdom of Saudi Arabia, called for safety to be taken seriously and for a focus on the essentials: an occupational safety and health professional in 2025 must be able to manage cultural complexity, operational ambiguities and financial pressures and hold people accountable. Occupational safety and health professionals are no longer just inspectors or consultants, but systems thinkers and relationship managers. These two outstanding keynote speeches were followed by three concise thematic presentations: Tim Tregenza, EU-OSHA, on the impact of digitalisation on the work of occupational safety and health professionals and their skills; Ahmed Ismail, MSOSH, Malaysia, on developing the environmental competence of occupational safety and health professionals, strategic leadership skills and a strong ethical responsibility for sustainability and the well-being of the community; Evelien Jonkeren, ISSA, with reflections and concrete examples on values, morals and ethics in the work context in times of change.

In the second part of the workshop, participants worked in small groups switching between different tables on specific questions relating to the three core topics of the workshop: climate change, digitalisation and ethics.

The expected outcome of this interactive part was a first step towards identifying the challenges and the associated competence requirements and gaps. The result of this exercise surprised both the participants and the organisers:

Competency Tableau for OSH Professionals

Competence area	Knowledge & Skills Challenges	Gaps & Preparedness	Sectoral/Field Impacts & Consequences
Climate change	- Handle unpredictable/extreme events in risk assessment - Update climate science knowledge continuously - Enhance skills for assessing fluid/extreme risks	- Build environmental literacy - Manage psychosocial risks (climate anxiety, trauma, heat violence) - Cultural diversity & migration preparedness - Policy/practice development - Community relationship building	- Scenario building & foresight skills - Interdisciplinary collaboration - Agility over prediction - Lead sustainability efforts - Manage new hazards, supply chain & operational risks
Digitalisation	- Use tech to benefit all workers - Language tools for training - Real-time info sharing - Data monitoring & analysis - Empower self-managed safety	- Act as risk assessor, tech pilot, ethics educator, facilitator - Lead change & risk control implementation	- Spot absenteeism/presenteeism - Identify slow adoption or confusion - Address data over-reliance & AI errors - Ensure worker engagement & data transparency
Ethics	- Collective decision-making (tripartite model) - Ethical literacy - Communication, listening, negotiation, mediation - Cultural competence	- Align OSH culture with 'do no harm' principle - Manage duty to prevent harm vs. shareholder value - Use Vision Zero as a guiding framework	- Model ethical leadership - Build trust-based dialogue - Respect diverse ethics - Apply relevant case studies - Develop owned codes of ethics ('Iron Ring') - Use deeper purpose symbols

These results will be incorporated into the roadmap of the World Assembly, the Osaka Declaration and, ultimately, the starting point for further discussion on individual and collective capabilities at EXPO 2030 in Riyadh.

16H2



The Future of OSH Partnerships and Relationships with other professionals

Moderator	Rapporteur	The Future of OSH Partnerships and Interprofessional Collaboration: With Whom, Why, and How?	Partnerships: Power and promises
  Matthew Olota President Elect International Occupational Hygiene Association (IOHA), Nigeria	  Nathan Winter Past-President INSHPO Australia	  Dooyong Park Dean of Graduate School Hansung University, Korea	  Nancy Wilk President International Occupational Hygiene Association (IOHA), Canada
Cultural Intelligence	Communicate OSH concepts into all workplaces- user-friendly approach to SMEs	Communicate OSH concepts into all workplaces- user-friendly approach to SMEs	
  Greg Dearsley The Health and Safety Association of New Zealand (HASANZ), New Zealand	  Takahiro Kishi Associate Professor, University of Tsukuba Japan Society for Occupational Health (JSOH), Japan	  Hirohiko Nakahara Representative of the NAOSH Consulting, Occupational Safety and Health Consultant, Professional Engineer, Japan	

Summary

The following needs and strategies were identified:

1. Promote Interdisciplinary Collaboration

Encourage mixing of professionals across fields to break silos. Create cross-functional opportunities to build common language and solve shared problems.

2. Raise Awareness & Visibility

Increase global visibility of OSH and promote SHWB (Safety, Health, and Well-Being) as a fundamental right. Engage with educators, youth, and communities to build awareness early.

3. Support in Low-Regulation Regions

Provide resources, support, and partnership to countries with weak or no OSH frameworks. Strengthen global solidarity and collaboration.

4. Foster Soft Skills & Leadership

Build capacity in soft skills, management language, and openness to collaboration. Support professionals to form partnerships outside their usual domains.

5. Invest in Education & Cultural Intelligence

Integrate OSH and cultural intelligence into curricula across all disciplines. Develop training adapted to different professions and cultural contexts.

Acknowledging that international standardization is indispensable for achieving safety, health, and wellbeing, this forum served as an extremely important venue where experts from both Japan and overseas gathered to deeply discuss paths toward realizing a safer and more secure society in response to pressing issues such as AI, robotics, and wellbeing, and collaborative safety/Safety 2.0, starting with keynote speeches by the presidents of both ISO and IEC.



16EXS1

Opening

Moderator	MC	Opening Remarks	Key Note I Safety, health and wellbe- ing in an aging society	Key Note II nabling a safer, smarter, and sustainable future
 Hiroshi Asahi President Japanese Standards Asso- ciation (JSA), Japan	 Yukiko Mizuno Japanese Standards Asso- ciation (JSA), Japan	 Nobuhiro Endo President, Japan Industri- al Standards Committee (JISC), Japan	 Sung Hwan Cho President International Organization for Standardization (ISO), Korea	 Jo Cops President International Electrotech- nical Commission (IEC), Belgium
				

Summary

The International Standardization Forum, co-organized by GISHW and JSA, focused on "Designing Future Society for Our Lives: Safety, Health, Well-being, and Standardization."

Opening Remarks & Keynotes

The session opened with remarks from Dr. Nouhiro Endo (President, JISC), emphasizing international standardization as the vital foundation for safety and well-being in future work environments. He highlighted that advancements in AI, robotics, and ICT are enabling high-level cooperation between humans and machines, extending safe technology applications from manufacturing to logistics, agriculture, and elderly care.

Keynote speeches from the Presidents of ISO and IEC detailed how international standards are fundamental to addressing major societal challenges, including aging populations and sustainable digital transformation.

1. ISO's Role: Health and Well-being in an Aging Society (Dr. Cho)

Dr. Cho stressed that international standards are the connecting thread between vision and delivery for integrated action in aging societies, directly supporting the UN Sustainable Development Goals (SDGs).

Aging Societies: Standards are being developed for age-inclusive workforces, care-inclusive organizations (ISO/TC 314), and pioneering standards for Smart Multigenerational Neighborhoods (ISO 25553) to combat social isolation.

Digital & Accessibility: ISO ensures patient safety and fosters innovation in digital healthcare (telehealth) and guarantees that products and environments are accessible to all, including the elderly (Guide 71).

Workplace Safety: The flagship standard ISO 45001 manages risks and improves workplace safety, with supplements addressing psychosocial risk (ISO 45003).

2. IEC's Role: Enabling a Safer, Smarter, and Sustainable Future (Mr. Cops)

Mr. Cops highlighted that IEC standards form the invisible foundation enabling safe technological progress toward an all-electric and connected society.

Sustainability: The IEC directly impacts SDG 7 (clean energy) through standards for smarter grids and renewable power systems.

Future Tech: The IEC is addressing the functional safety of AI systems in collaboration with ISO. It also promotes a circular economy through design standards and a carbon footprint verification scheme.

Collaborative Safety/Safety 2.0: This concept emphasizes collaborative safety through proactive design and human-machine interaction. Technologies like 6G enable a Cyber Physical Continuum to predict and optimize safety before issues occur.

Active Assisted Living (AAL): Standards promote AAL services to enhance home support, security, and interoperability for aging populations.

The session concluded with a joint message: Standards are shifting from technical specifications to instruments of shared purpose that build social resilience, assuring a safer, healthier, and more sustainable future for everyone.





AI and robotics for collaborative safety: a) Technology

Moderator	Safety and Well-being for Realizing Human-Machine Collaboration	Functional safety and AI	Development of the IEC Guide on Collaborative Safety	The Perspective of Machine and System Safety	Functional safety and AI
  Steven Margis Vice-President, International Electrotechnical Commission (IEC) Chair of the Conformity Assessment Board, USA	   Tamio Tanikawa Director, Integrated Research Center for Wellbeing, National Institute of Advanced Industrial Science and Technology, Japan	   Thomas Bömer Deputy Head of Department "Accident Prevention: Digitalisation – Technologies", Section Manager "Industrial Security – Functional Safety," IFA, Germany	    Masao Dohi General Manager, International Standardization & Collaborative Safety Department, IDEC Corporation, IEC/ACOS JP Expert Project leader of the ACOS Task Force on Collaborative Safety, Japan	   Andrea Weimar Secretary General of Machine and System Safety Section, ISSA, Germany	   Riccardo Mariani VP Industry Safety NVIDIA, Italy



Safety2.0, or "Collaborative Safety," is a safety concept that uses information technology (ICT) to allow humans, machines, and the environment to share information and coordinate for safety, especially in environments where humans and machines coexist, such as in collaborative robotics or autonomous vehicles. This approach goes beyond traditional Safety 1.0 (which relied on isolating people from machines) by actively enabling a safer coexistence in shared spaces. Its principles can be applied to a wide range of fields beyond manufacturing, including construction, logistics, agriculture, and health-care.



Summary

In this session, participants shared perspectives on the new concept of "Safety 2.0," technical and standardization challenges for achieving collaborative safety, and the coexistence of humans and machines.

In the opening, Mr. Steven Margis (IEC) noted that the concept of safety has evolved from "Safety 1.0," which focused on protecting people from equipment, to "Safety 2.0," which also encompasses security and sustainability. Going forward, a new safety model where humans, machines, and the environment collaborate will be essential.

Firstly, in the first half of the presentations, Mr. Tamio Tanikawa (AIST) introduced research aimed at balancing safety and productivity by using dynamic human models and communication technologies to promote worker well-being while leveraging AI robots.

Next, Mr. Thomas Bömer (IFA) emphasized that embedding functional safety from the early stages of development is critical for enabling collaborative work between AI and robots and for gaining workers' trust, with standardization serving as the foundation.

Mr. Masao Dohi (IDEC) discussed the concept of "collaborative safety," where humans, machines, and the environment share information using ICT and sensing technologies, and approaches to international standardization.

Ms. Andrea Weimar (ISSA) stressed that AI and robots are part of a system, and that it is vital to foster standardization and a safety culture by leveraging human characteristics, such as flexibility, learning ability, empathy, and metacognition.

Mr. Ricard Mariani (NVIDIA) noted that multiple AI safety standards are being developed by ISO and IEC, focusing on uncertainty management and safety architecture, forming the basis of comprehensive safety systems.

In the latter half of the discussion, participants agreed that achieving collaborative safety requires information sharing and mutual feedback among humans, machines, and the environment. Introducing AI and robots demands functional safety integration, human behavior prediction, complexity reduction, and cost-effective design investment. Standardization should define the framework for innovation without overly prescribing design. Finally, balancing safety and productivity alongside AI advancements was identified as a key future challenge.



AI and robotics for collaborative safety: b) Implementation and management

Moderator	Use of AI, ICT and Robot to improve Safety, Health, and Well-being in Construction Industry	The Road to Collecting 120,000(new) near-miss Reports	The Importance of Standards and Personnel in the Safety Equation	Digitization and Technological Solutions to improve Safety and Wellbeing in the Work Environment-Hong Kong's Experience	Promoting Both Safety and Productivity: Achieving Collaborative Safety in Manufacturing Sites through International Standardization
 Toshiyuki Kajiya Director, The Institute of Global Safety Promotion (IGSAP) Vice chair, IECEE, Japan	 Takashi Kawata Representative, Kawata Consulting Office Director, The Institute of Global Safety Promotion (IGSAP), Japan	 Tomohito Mori Manager, Safety department, Technology Headquarter, Daiwa House Industry Co., Ltd.	 Timothy T. Duffy Senior Manager, Conformity Assessment Global Product Standards & Regulations Rockwell Automation, USA	 Winson Yeung Principal Consultant Occupational Safety and Health Council (OSHC), Hong Kong Special Administrative Region, China	 Masaki Nobuhiro Project Manager, Unit Plant Support Dept., Safety & Health Promotion Div. TOYOTA Motor Corporation / Chair, Monodzukuri Committee, IGSAP, Japan

Summary

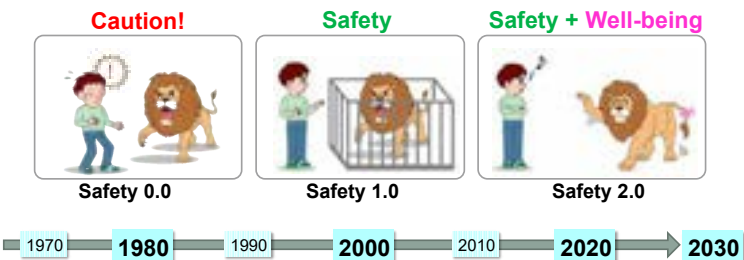
To properly implement Collaborative Safety/Safety 2.0 in the field and ensure that it sustainably performs its intended functions, a comprehensive approach is essential—not only focusing on the technical aspects discussed in Panel 1-1, but also addressing organizational operations, management systems, personnel competence, and the establishment of corresponding rules.

In particular, as workplaces increasingly adopt machines and equipment equipped with the latest ICT technologies such as AI and robotics, new risk factors emerge—ranging from operational risks associated with these technologies to the physiological impacts on outdoor workers caused by recent climate change. These evolving risks demand a new, broad range of countermeasures.

This session introduced examples of unique initiatives for collaborative safety, their implementation outcomes, and responses to new risks from the following companies, mainly in the construction and electrical sectors. It will also explore the needs and future directions for international standardization.

The introduction of collaborative safety measures is one of the tools to achieve the ultimate goal of ensuring employees’ safety, health, and well-being. It represents a next-generation safety approach that goes beyond traditional physical safety measures to include psychological safety—creating a sense of security and trust.

For international standardization bodies such as ISO and IEC, this represents a new global challenge: building a universal safety platform. In particular, there is a need to discuss—through broad stakeholder collaboration—how standardization methodologies can be applied to effectively measure the outcomes of these implementations.





AI and robotics for collaborative safety: c) Well-being and Standardization

Moderator	Global Challenge: Mental Health at Work	Expected Effects of Recently Developed Wellbeing Standards	International Standardization Forum for Safety, Health, and Wellbeing	How we can improve usability and accessibility through standardization	Consumers' Well-being and Standardization
 Hajime Yamada Secretary, IEC/SyC/AAL Professor Emeritus, Toyo University, Japan	 Toru Yoshikawa Senior Researcher (Deputy Director), Research Center for Overwork-Related Disorders, National Institute of Occupational Safety and Health (JNIOSH), Japan	 Hiroshi Sato Deputy Director General, Information Technology and Human Factors Dept. National Institute of Advanced Industrial Science and Technology (AIST), Japan	 Ulrike Haltrich Senior Manager, Sony Europe Ltd. Eu-Technology Standards Office (TSO) IEC TC 100 Chair, ETSI TC Human Factors Chair, Germany	 Ram Maikala Program Technical Consultant National Safety Council, USA Chair, ANSI/ISO TC 159SC4, USA India	 Fumie Suga Professor, Hosei University, Japan

Summary

Each panelist explained trends in international standardization within their respective fields. The starting point for standardization related to health, safety, and well-being was occupational health and safety management. Including standards related to mental health, these are now used in countries around the world.

However, many people are not affiliated with a workplace—such as children, shop owners, agricultural workers, and the elderly. To include these groups, a new international standard has been established that outlines common principles for well-being management in organizations and communities.

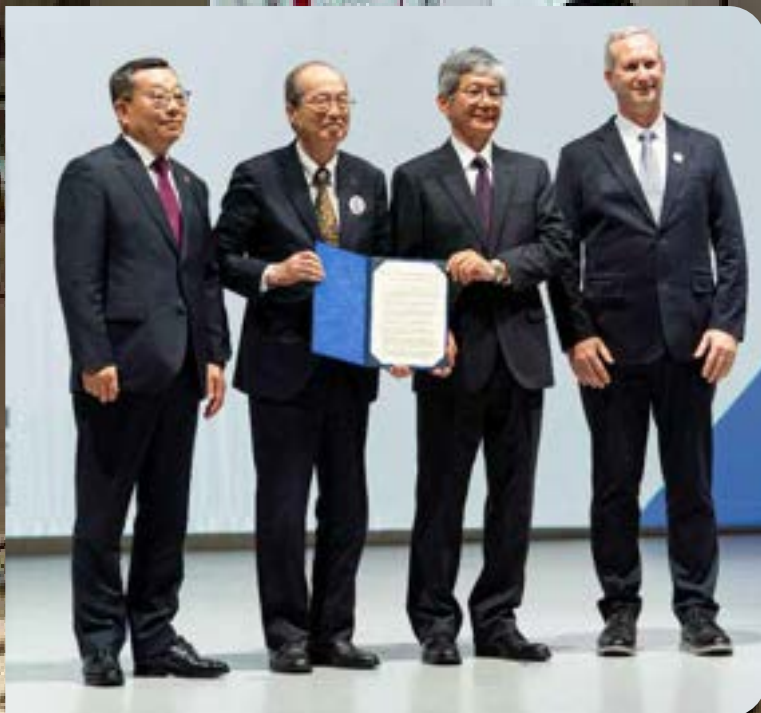
Rapidly advancing digital technologies can also be used to enhance well-being, such as measuring heart rate with a smartwatch. It is essential that services and products designed to improve well-being are easy to use for their intended users and do not exclude people with disabilities (usability and accessibility). On the other hand, some consumers end up purchasing expensive services or products without fully understanding them. An international standard has also been created to encourage service providers to address consumer vulnerability.

Panelists were asked how these international standards are actually being used, and then the chairs of ISO and IEC were invited to share their views. Both chairs made strong statements expressing their commitment to further promoting these standards. The panel concluded with the message: Let's further activate promotion efforts by ISO and IEC.



Declaration of International Standardization for Safety, Health, Well-being @ EXPO

The declaration emphasizes a global commitment to advancing international standardization for safety, health, and well-being, aiming to create safer workplaces and inclusive societies through collaborative innovation and harmonization of standards.





GISHW @EXPO2025	Technical Tours	Party	High-level Summit	World Assembly	Standard- ization Forum	Mukai dono Safety Award	Finepubble Well-being	Int'l Symposium	ILO Youth Congress	Festival	Exhibition	Baton to Riyadh	Osaka Declaration	Messages
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The Mukaidono Safety Award recognizes individuals and organizations that have dedicated themselves to enhancing and promoting industrial safety, inspired by Professor Dr. Masao Mukaidono's achievements and passion for this field in Japan. This prestigious award aims to encourage and honor those who have made significant contributions to maintaining, improving, advancing and spreading safety practices within the industrial sector. Its ultimate goal is to foster a culture of safety, not only among professionals involved in industrial safety but also to contribute to the promotion of safety at industrial sites in Japan and beyond. On July 17, 2025, one organization and six individuals were awarded with the prestigious award for the



Organization Category

[Achievement Award]

Hitachi Construction Machinery Co., Ltd. Construction Business Unit Development and Design Division Customer Solutions Promotion Division Palace

For: Development and dissemination of collaborative safety solutions that link construction machinery and on-site safety activities



Individual Category

[Achievement Award]

Mr. Kazuhiko Tsutsumi (former IEC Vice President, MSB Chairman)

For: Publication of the IEC White Paper 'Safety in the Future' and Leading the Promotion of Collaborative Safety Standardization



[Distinguished Service Award]

Professor. Seiji Abe (Director of Umeda Campus, Kansai University / Technical Advisor, JR West Railway Headquarters)

For: Development of social safety science and establishment of transportation safety and accident investigation systems



KANSAI UNIVERSITY



GISHW @EXPO2025	Technical Tours	Party	High-level Summit	World Assembly	Standard- ization Forum	Mukaيدono Safety Award	Finpubble Well-being	Int'l Symposium	ILO Youth Congress	Festival	Exhibition	Baton to Riyadh	Osaka Declaration	Messages
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[Achievement Award]

Mr. Zhao Li (Co-chair of the G20 Occupational Safety and Health Network)

For: Contributions to occupational safety and health through the G20 Occupational Safety and Health Network and the U.S. Department of Labor"



[Achievement Award]

Ms. Dee Arp (Chairperson, International Network of Occupational Safety and Health Professionals)

For: Contribution to occupational safety and health by the International Network for Safety and Health at Work (INSHPO)



[Achievement Award]

Mr. Malcolm Staves (L'Oréal/Vice President of Global Health and Safety)

For: Establishing a safety culture in the L'Oréal Group as a global model

L'ORÉAL



[Achievement Award]

Eng. Majed bin Ibrahim Alfuwaiz (Saudi National Council for Occupational Safety and Health (NCOSH))

For: Contribution to improving the working environment at the Saudi National Council for Occupational Safety and Health (NCOSH)



17EXS1



Moderator(s)


Fine Bubble Industries Association


ISO

Nobuo Kakehi
Director,
Fine Bubble Industries
Association (FBIA)

Nobuhiro Aya
Ph.D., Committee
Manager
ISO/TC 281



Keynote Speech

Ultrafine bubble generation and stability principles and a standard UFB water proposal


Keio University



Koichi Terasaka
Professor, Keio University
Director, Fine Bubble Industries Association (FBIA)



1. Fine Bubble Technology Trend in the World 2. Drafting ISO/TC285 Declaration		
12 years of TC281  ISO Stephen Ward-Smith Chair ISO/TC 281, UK	Current Status on Finebubble Technology of Korea  ISO Young Cheol Park HoD of ISO/TC 281 Korea	Fine Bubble Technology in China Application-Standardization-Certification  ISO Li Zhaojun HoD of ISO/TC 281, China Institute of Process Engineering, Chinese Academy of Sciences
Fine Bubble in Russia  ISO Vladimir Dobrovolskiy HoD of ISO/TC 281 Russia	Fine Bubble in Russia  ISO Narine Oganyan Rep of TAG to ISO/TC 281 Russia	Development of Finebubble Technology in Indonesia  ISO Aris Purwanto HoD of ISO/TC 281 Indonesia
Development of Finebubble Technology in the United States  ISO Yuhong Jiang Member of US Technical Advisory Group ISO TC 281 Fine Bubble Investigations and Advancements, USA	Development of Finebubble Technology in Japan  ISO Akira Yabe Convenor of ISO/TC 281 WG3 Japan	

The Finebubble International Symposium was held on Thursday, July 17, at the EXPO Salon as part of GISHW Expo events, co-organized by the Fine Bubble Industries Association (FBIA) and the ISO Technical Committee on Fine Bubble Technology (ISO/TC281). More than 100 participants, including domestic and international TC281 and FBIA members as well as other stakeholders in fine bubble technology, attended the event.

Keynote Speech

Professor Hirokazu Terasaka of Keio University delivered a keynote address titled “Principles of Ultra-Fine Bubble (UFB) Generation and Stability, and Proposal for Standard UFB Water.”

The lecture provided scientific validation of fundamental questions such as the conditions under which FBs are generated and why they remain stable. Based on this validation, Professor Terasaka proposed “Standard UFB Water” as a reference material for international standardization.

Panel Discussion

The discussion began with a report from Steve Ward Smith, Chair of TC281, on “Trends in Fine Bubble Technology in the UK.” This was followed by updates from the United States, China, South Korea, Russia, Indonesia, and Japan. The session highlighted how FB technology is spreading globally as an environmentally friendly technology that supports well-being and is driving the creation of new industries.

17EXS1 Summary

The international symposium was held on Thursday, July 17, at the EXPO Salon as one of the seven EXPO events organized by GISHW. It was co-hosted by the Fine Bubble Industries Association (FBIA) and the ISO Technical Committee on Fine Bubble Technology (ISO/TC281). Over 100 participants, including domestic and international members of TC281 and FBIA, as well as other stakeholders in the fine bubble (FB) field, attended the event.

The keynote lecture was delivered by Professor Hirokazu Terasaka of Keio University, titled “Principles of Ultra-Fine Bubble (UFB) Generation and Stability, and Proposal for Standard UFB Water.” He presented scientific validation of the basic conditions for FB generation and its stability, and proposed “Standard UFB Water” as a reference material for international standardization.

In the following panel discussion, Mr. Steve Ward Smith, Chair of TC281, reported on the technological trends of fine bubbles in the UK. Updates from the United States, China, South Korea, Russia, Indonesia, and Japan were then shared. It was confirmed that FB technology is spreading globally as an environmentally friendly and well-being-enhancing technology, contributing to the creation of new industries.

Afterward, a draft of the “Fine Bubble Technology / 2025 EXPO Declaration” was prepared at the EXPO Hall. The declaration aims to promote industrialization of FB technology through ISO international standardization and to achieve the ISO vision. The declaration included three approved action items:

- ISO standards used everywhere**
- Responding to global needs**
- Listening to all voices**

Finally, seven individuals who contributed to the 12 years of ISO/TC281 activities since 2013 were honored.

This was the first international symposium jointly hosted by FBIA and TC281, and it helped deepen understanding of how international standardization is driving industrial creation in the fine bubble field. Attendees were also able to experience its social implementation through EXPO exhibits such as the “Future Human Washing Machine,” “Universal Toilet,” and “Automatic Hand Washer using Fine Bubble Electrolyzed Water.”

This EXPO event marks a new step toward further technological innovation and industrial development in the fine bubble sector.



GISHW @EXPO2025	Technical Tours	Party	High-level Summit	World Assembly	Standard- ization Forum	Mukaidono Safety Award	Finebubble Well-being	Int'l Symposium	ILO Youth Congress	Festival	Exhibition	Baton to Riyadh	Osaka Declaration	Messages
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17EXH2



Finebubble Technology EXPO 2025 Declaration

Expo Declaration

Afterward, participants drafted the “Fine Bubble Technology / 2025 Expo Declaration” at the EXPO Hall. The declaration aims to promote industrialization of FB technology through ISO international standardization and achieve the ISO vision.

Three key activities were endorsed:

ISO standards used everywhere, Responding to global needs, and Listening to all voices

Finally, seven individuals who contributed to ISO/TC281 activities over the past 12 years since 2013 were honored. This was the first international symposium jointly organized by FBIA and TC281. It reinforced the understanding that international standardization is linked to industrial creation in the fine bubble field. Through exhibits such as the “Future Human Washing Machine,” “Inclusive Toilet,” and “Automatic Hand Washer Using Fine Bubble Electrolyzed Water” within the Expo venue, participants experienced the social implementation of these technologies firsthand. Building on this Expo event, we will continue to strive for further technological innovation and industrial development in fine bubble technology.

Nobuo Kakei

Chair, Marketing Committee

Fine Bubble Industries Association



Fine Bubble
Industries Association

  Nobuhiro Aya Ph.D., Committee Manager of ISO/TC 281	  Sung Hwan Cho President, ISO	  Atsuko Saruhashi Director, International Standardization Division, Ministry of Economy, Trade and Industry (METI), Japan	  Satoshi Morikawa Chairman, Fine Bubble Industries Association (FBIA)
  Tsuyoshi Matsushita Vice Chairman, Fine Bubble Industries Association (FBIA)	   Koichi Terasaka Professor, Keio University Director, Fine Bubble Industries Association (FBIA)	  Stephen Ward-Smith Chair of ISO/TC 281 UK	  Young Cheol Park Hod of ISO/TC 281 Korea
  Li Zhaojun Hod of ISO/TC 281 China	  Vladimir Dobrovolskiy Hod of ISO/TC 281 Russia	  Aris Purwanto Hod of ISO/TC 281 Indonesia	  Yuhong Jiang Rep of TAG to ISO/TC 281 USA



About World International Symposium

Introduction

The GISHW 2025 Symposium in Osaka gathered global leaders, researchers, and practitioners to advance occupational safety, health, and well-being (OSH/SHW). Sessions highlighted the intersection of technology, leadership, climate change, psychosocial health, and inclusive strategies, emphasizing how prevention must evolve to meet the challenges of a rapidly changing world.

Technology and Innovation for Prevention

A strong theme was the transformative potential of technology. BASI illustrated how AI-driven prevention is reshaping OSH in Germany through predictive risk analysis and generative inspection assistants, streamlining inspections and enabling prevention-focused work. ISSA Construction and ISSA Mining demonstrated the role of AI tools, data analytics, and digital solutions in supporting Vision Zero, improving prevention culture, and enabling early hazard detection.

The ORP session 'Safe Future: Emerging OSH Technologies' stressed building an ecosystem of wearables, IoT, and AI with human-centered design to safeguard both physical and mental health. A complementary ORP session urged not to rely on past solutions, presenting the 5Z framework (Zero Accidents, Illness, Waste, Inequality, Ignorance) as a holistic prevention model, and positioning Japan as a laboratory for safe automation and ageing policies.

Sessions hosted by OSHC (Hong Kong Special Administrative Region, China) showcased practical applications of AI, IoT, robotics, drones, wearables, and exoskeletons in construction and workplace health. Speakers emphasized that these tools should empower workers rather than replace them, with collaboration and people-centered adoption key to achieving zero accidents.



Hans-Horst Konkolewsky
President
International ORP Foundation
(FiORP)





Leadership, Culture, and Meaningful Work

Leadership was consistently identified as the foundation of workplace safety and well-being. The MSABC session highlighted that emotionally intelligent leadership fosters psychological safety, trust, and engagement, reducing stress and boosting innovation. Similarly, distributed leadership models were emphasized by ORP, where prevention is shared across boards, managers, supervisors, and worker representatives.

The ISSA OSH training session reframed Vision Zero as a cultural mindset rather than a checklist. It stressed the need for inclusive, locally relevant training, strong leadership modeling, and integration of OSH into education to prepare future safety leaders.

Sessions also emphasized the link between meaningful work and mental health. IOSH underscored that modern economies often prioritize acceleration over well-being, fueling alienation and burnout. Employers must design work that is meaningful, resonant, and supportive of positive identity, or risk undermining worker health.

The Human House workshop echoed these insights, highlighting cultural differences in psychosocial practices across Asia and Europe but aligning around the IGLO framework (Individual, Group, Leader, Organization). It stressed that psychologically safe teams and strong leadership are universal drivers of workplace well-being.

Climate Change, Policy, and Global Strategies

Several sessions drew attention to climate change as a rising OSH challenge. The ILO's Vision Zero Fund highlighted how rising temperatures and extreme weather threaten outdoor and platform workers, urging just transitions, inter-agency collaboration, and preventive structures. ICOH expanded this by spotlighting migrant workers, who face dual risks of extreme heat and psychosocial stress, calling for inclusive protections, legal safeguards, and mental health support.

Policy and governance were also central. The EU-OSHA session stressed that digitalisation must be accompanied by regulatory innovation, ensuring 'human in control' principles under the EU's AI Act and Platform Work Directive. National strategies discussed by ORP highlighted the value of collaboration, adaptive regulation, and alignment with long-term visions, with examples from Denmark, Saudi Arabia, Japan, Senegal, and Singapore showing how prevention strengthens social and economic development.

The FIOH-led session on Vision Zero strategies reinforced that engaging leadership, creating a learning culture, and adapting to workplace realities are key to sustained progress. APOSHO further advanced a people-centred OSH strategy, urging empowerment, ethical technology use, and policy alignment across Asia-Pacific contexts.

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Additional Highlights

The ENETOSH session focused on youth, education, and resilience, questioning the prevailing 'logic of growth' and proposing concepts such as resonance and relational resilience. It emphasized the role of education as a health resource and showcased youth-led creative projects, reinforcing the need to build trust, meaning, and openness in early safety education.

Several ISSA-led sessions highlighted the opportunities and risks of the digital age. ISSA's Machine Safety and Electricity sections discussed the potential of automation, immersive training, and cybersecurity safeguards to transform workplaces. DGUV's workshop showcased real-life applications such as smart saws, exoskeletons, and AI-driven monitoring, linking digitalisation with sustainability goals and calling for responsible regulation. KOSHA built on this theme, stressing that AI and big data can predict risks but may also intensify psychosocial pressures, making ethical governance essential.

The healthcare sector received focused attention in the ISSA Health Section session. Case studies addressed workplace violence, musculoskeletal strain from hospital equipment, sharps disposal safety, and hazardous substances management, applying Vision Zero principles to protect health professionals.

Vision Zero's global adoption was further reinforced through ISSA's plenary sessions, which shared case studies from Luxembourg, Senegal, Malaysia, and Guatemala, showing measurable reductions in accidents and improvements in prevention culture.

Broader inclusion was addressed by the UK HSE session on female leadership in OSH, which highlighted progress but also ongoing challenges in representation and PPE design. Similarly, the IOHA session stressed capacity-building in occupational hygiene, pointing to global shortages of trained hygienists and the urgency of partnerships and advocacy.

Finally, IOSH's digital session underscored that predictive SafetyTech must be human-centered, balancing oversight with autonomy, and ensuring worker participation to build trust and effective adoption.

Conclusion

Across diverse contexts, the Symposium underscored a common understanding: the future of prevention requires balancing technological innovation with human values. AI, robotics, and digital tools offer unprecedented opportunities but must be applied with a human compass. Leadership—both emotionally intelligent and distributed—is indispensable for embedding safety and well-being into organizational cultures.

Climate change and digitalisation introduce new systemic risks, demanding adaptive regulation, just transitions, and global collaboration. At the same time, workers increasingly expect meaningful, psychologically safe, and health-supportive workplaces. Ultimately, the Symposium confirmed that achieving Vision Zero in a changing world depends on ethical technology, resilient cultures, empowered workers, and collaborative international strategies.



17EXS2



The Vision Zero Strategy and its Global Implementation

Moderator	Moderator	Opening	The Vision Zero Story – Together for Life
  Sven Timm Dep. Director of Central Prevention Division, DGUV, Germany	  Bernd Treichel Senior Specialist in Prevention, ISSA Switzerland	  Mohammed Azman President of the ISSA/CEO of SOCSO/PERKESO, Malaysia	  Helmut Ehnes President of ISSA mining & Chair of the Vision Zero Steering Committee of ISSA, Germany
Impressions from the Implementation of Vision Zero in Luxembourg	Impressions from the Implementation of Vision Zero in Senegal	Impressions from the Implementation of Vision Zero in Malaysia	Impressions from the Sector-Related Implementation of Vision Zero in Guatemala
  Annick Sunnen Head of Prevention, Association d'assurance accident, AAA Luxembourg	  Marie Diallo Head of Prevention, Caisse de Sécurité Sociale du Sénégal Senegal	  Azlan Darus Head of the Prevention, Medical, and Rehabilitation Division of PERKESO Malaysia	  Jose Raul Gonzalez Merlo CEO of Progreso Guatemala

Summary

- Social Security has an important role to play in moving Prevention forward
- The ISSA's Vision Zero strategy has reached millions of people and has transformed business.
- Companies and Organisations that follow the Vision Zero approach have fewer accidents compared to those that are not committed to OSH.
- Country Case Studies on Vision Zero Implementation demonstrated the Vision Zero success :
 - Luxembourg managed to reduce its accident frequency rate by 34% after having launched a national VZ campaign
 - Senegal has just embarked on an exciting journey and has adopted the Vision Zero Strategy for the period from 2025 to 2032 with concrete objectives and measures
 - The Social Security Organisation of Malaysia went on a strategic journey and has mainstreamed the Vision Zero mindset into all their prevention activities. Their Vision Zero support programme supported 88 Companies and 17,500 workers. An evaluation of the programme revealed that 79.5% of participating organizations (70 out of 88) reported improvements in OSH management practices.
 - Cementos Progreso from Guatemala managed to establish a safety culture where accidents and incidents are constantly being reduced. This happened mainly through leadership (Rule no one) and active participation of the workforce (Rule no 7).



17EXS3



Modern Labour Inspection Approaches – Vision Zero Workplaces

Session 1: Implementing Vision Zero in Labour Inspection

Keynote The Future of Labour Inspection: Embracing Vision Zero	Moderator	Panelist	Panelist
  Helmut Ehnes President of ISSA mining & Chair of the Vision Zero Steering Committee of ISSA, Germany	  Christophe Iseli Vice President of IALI Switzerland	  Duncan Spencer Head of Advice and Practise of IOSH, UK	  Pal H Lund Labour Inspector in Norway and Vice President of IALI, Norway

Session 2: Digitalization and AI in the enabling Vision Zero

Moderator Data-Driven Approaches to Labour Inspection	Digital Transformation in Labour Inspection: EU OSHA's Initiatives and Key Findings	Saudi Arabia's Vision 2030: Digital Transformation of Labour Inspection through Data-Driven Regulation	From Lagging to Leading: Singapore's Journey in Data-Driven Labour Inspection and Predictive Risk Modeling
  Ana Ercoreca de la Cruz Secretary General of IALI, Spain	  Ms Vibe Westh Head of Prevention and Research Unit, EU OSHA, Denmark	  Abdullah Abdulmohsen Aldayel International Relations Manager at NCOSH, Kingdom of Saudi Arabia	  Jaime Lim Director OSH Specialist and major hazards Installation, Singapore

Opening Remark



Joaquim Nunez
 Chief Officer at the ILO Portugal

Opening/Closing Remark



Ho Siong Hin
 President of IALI Singapore

Summary

Implementing Vision Zero in Labour Inspection

- A panel discussion with Mr. Duncan Spencer (IOSH) and Mr. Pål H. Lund (IALI) explored how Vision Zero can guide labour inspection. Vision Zero promotes the organisation of work so every worker returns home safely—free from exploitation, harm, or fatal risk.
- Ensuring good working conditions requires collaboration between labour inspectorates, social partners, government agencies, educational institutions, companies, NGOs, and academia. By setting shared goals, they can provide guidance and build capacity to improve workplace safety. Vision Zero can be implemented at many levels—within a trade chain, region, industry, employer federation, or individual company.
- While global supply chains bring growth, they also expose vulnerabilities like worker exploitation and environmental harm. Vision Zero challenges us to go beyond compliance, aiming for a world with no injuries, no environmental damage, and no community left behind.
- Health and safety systems, including Vision Zero, offer frameworks for safe performance. Labour inspectors must understand and use them in inspections. Rapid technological progress presents both challenges and opportunities, providing new tools for inspectors and businesses alike.

Government level:

Governments set the legal frameworks and policies supporting Vision Zero. Risk-based structures in Europe, New Zealand, and Australia align well with it. Several countries, such as Thailand, Malaysia, Singapore, and Côte d'Ivoire, have integrated Vision Zero nationally—training inspectors, creating centres, and rewarding companies for high performance.

Business level:

Businesses value structure and measurable improvement. The Vision Zero “7 Golden Rules” model supports this and drives productivity. Beyond preventing losses, Vision Zero enhances resilience, efficiency, reputation, and employee retention. While absolute zero accidents are unlikely, it promotes continuous improvement and responsible risk management.

Individual level:

Safe work ensures stable income, family care, education, and fulfilment. A healthy workforce contributes to tax revenues and national prosperity.

Challenges for business:

Companies face climate change, wars, migration, technological disruption, public scrutiny, and shifting worker expectations. Competition is fierce, supply chains unstable, and demographics evolving—with growing reliance on migrant workers in some sectors.

Technology and inspection:

Labour inspectors must balance enforcement with encouragement. Poor performers need sanctions; good ones need support. Using the IOSH model, inspectors assess whether a company is embryonic, active, proactive, or integrated in safety culture. To remain relevant, inspectors must stay updated on technology—from manufacturing tools to AI and data analytics—and use innovations such as drones or data software to enhance inspections.

17C1



Envisioning a Future Society through Co-Creation: The Intersection of Well-being and Innovation

Moderator	Opening Remark	The activities of WaaS Co-Creation Consortium	What can companies do to promote Well-being?	Creating a society where everyone flourishes — New Communities and Design	Cultivating Town Culture through Horticulture
  Yamato Fukuta Secretariat General, WaaS Co-Creation Consortium Manager, Innovation Strategy Headquarters, East Japan Railway Company, Japan	  Tetsuya Abe Unit leader, Digital Strategy Promotion Unit, Innovation Strategy Headquarters, East Japan Railway Company Japan	  Yamato Fukuta Secretariat General, WaaS Co-Creation Consortium Manager, Innovation Strategy Headquarters, East Japan Railway Company, Japan	  Takekazu Inoue Chief Specialist, The Japan Research Institute, Limited, Japan	  Koichi Wakasugi Professor, Institute of Innovation Managing Director, Research Center of Social Creative, Musashino Art University, Japan	  Yoshiki Mishima Founding Director, Landscape Architect, FOLK, Inc, Japan

Summary

As part of efforts to realize a well-being-oriented society, a report was presented on the activities of the WaaS Co-Creation Consortium, an open innovation platform aimed at enhancing mobility and value spaces. The event also featured expert lectures and a panel discussion on the theme:

“What can companies do for well-being?”

The WaaS Co-Creation Consortium views well-being not only as individual happiness and health, but as a vital concept that shapes society as a whole. Through its activities, the consortium has collaborated with numerous companies, organizations, and local governments to tackle social issues that are difficult for a single entity to solve, developing new services and conducting pilot projects.

As these activities progressed, the question emerged:

“What is the role of companies in promoting well-being?”

In response, the importance of the relationship between individuals and communities was emphasized—particularly the challenges individuals face when confronting the modern market. To truly realize well-being, companies must move beyond traditional frameworks and adopt systems and cultures based on trust, where individuals can participate in decision-making.

Concerns were also raised about how people are treated in today’s market. It was suggested that sharing “unproductive” time and embracing human vulnerability could lead to new forms of community that prioritize psychological safety. Case studies on community-building efforts were also shared, highlighting the creation of open, supportive communities where individuals can pursue their passions and contribute to local society.

The panel discussion concluded that even in the absence of clear answers, continuing the conversation around well-being is meaningful. Rather than seeking definitive solutions or rigid corporate roles, the WaaS Co-Creation Consortium’s activities were described as a “grand experiment to bring things back to the human side.”

It was also noted that mechanisms to actively involve citizens are essential for shaping the next era.

This symposium served as a starting point for exploring how well-being can be concretely defined and integrated into corporate and societal practices.



17C2



Addressing Occupational Hygiene Priorities globally

Moderator	OH Education and Capacity Building – Challenges and Opportunities	The successful Establishment of Occupational Hygiene Professionals: The Case of Japan	Improving OSH of Vulnerable Workers	Advocacy for Global Occupational Health	Chemical Exposures as Part of a Holistic Hearing Conservation Program
  Samantha Connell Immediate Past President, IOHA Switzerland	  Matthew Olota President-Elect IOHA Nigeria	  Haruo Hashimoto IH Division, JSOH; Board Member, JAWHE Japan	  Rene Leblanc Founder, REFLEX Canada	  Nancy Wilk President, IOHA Canada	  Amir Wolfe Vice Chair, Advisory & Standards, CAOHC Israel

Summary

1. Samantha Connell opened the session by emphasizing the role of occupational hygiene (OH) in preventing work-related diseases and framing the session topics as critical to realizing safety and health as a fundamental right.
2. Matthew Olota highlighted the urgent need for more occupational hygiene education and global capacity building. With just over 20,000 hygienists worldwide, distribution is highly uneven: per million workers there are 2 globally, 0.5 in Africa, 0.15 in Asia, 2 in Europe, 36 in North America, 10 in Oceania, and nearly 0 in South America. He stressed opportunities in strengthening regulation, stewardship (internal and external), national data reporting, funding initiatives, and leveraging partnerships to grow OSH communities.
3. Haruo Hashimoto discussed Japan's journey to strengthen competency through credentialing. Since 2005, the number of certified hygienists has grown from 0 to 130, driven largely by regulatory reforms in chemical management since 2022. Despite progress, Japan still faces a significant shortfall with an estimated need for around 1,000 certified hygienists. Japan is looking to the world for opportunities to advance technology and operational practices.
4. René Leblanc underscored the urgency of addressing risks among informal and vulnerable workers. He noted impacts of globalization, supply chain compliance, and funding requirements from institutions like the World Bank and IMF. A tripartite approach has proven effective. Priorities include ensuring respect and dignity for all workers, advancing OSH education, framing OSH as an investment, reducing informality, expanding universal healthcare, and committing to long-term systemic change.
5. Nancy Wilk spoke on advocacy and partnerships as drivers of systemic change. She highlighted the Global Occupational Safety & Health (GOSH) Coalition, which brings together 21 organizations including IOHA, ICOH, IEA, IOSH, and WHWB. With OSH often under-recognized and recent global health funding cuts, unified action is critical. Priorities include: integrating OSH into all policies and plans; urging governments to advocate at the UN; restoring the ILO/WHO Joint Committee on Occupational Health; supporting OSH-related SDG targets; promoting ratification of ILO conventions; and demonstrating that investment in OSH saves lives and costs.
6. Dr. Amir Wolfe emphasized the need for holistic prevention programs by integrating ototoxic chemical exposure into hearing conservation. He recommended including ototoxicants in risk assessments, enrolling exposed workers in hearing surveillance, documenting chemical exposure in hearing loss cases, and applying the precautionary principle when evidence is limited.



17C3



National Prevention Strategies and Programmes

Moderator	National Prevention Strategies and Programmes - Denmark	National Prevention Strategies and Programmes - Denmark	National Prevention Strategies and Programmes - United Kingdom
  Hans-Horst Konkolewsky President, International ORP Foundation, Denmark	  Anders Just Pedersen Deputy Director General, Dansk Industri, Denmark	  Dan Mikkelsen Trade Union Secretary, Dansk Metal, Denmark	  Sarah Albon Chief Executive, Health and Safety Executive, United Kingdom
National Prevention Strategies and Programmes - Japan	National Prevention Strategies and Programmes - Senegal	Prevention Strategies and Programmes - Singapore	
  Toru Takegoshi President, Japan Industrial Safety and Health Association, Japan	  El Hadj Ibrahima Diallo Head of OSH Department, Ministry of Labour, Senegal	  Silas Sng Commissioner for Workplace and Health, Singapore	

Summary

The session highlighted how countries are advancing occupational safety, health, and wellbeing through national prevention strategies.

1. Collaboration is a cornerstone of prevention.

Anders Just Pedersen and Dan Mikkelsen from Denmark illustrated how strong partnerships between industry and labour can drive a culture of safety. The joint efforts of employers and unions demonstrate that shared responsibility and social dialogue are essential to embedding prevention into workplaces at scale.

2. Aligning national vision with OSH strategies delivers transformative impact.

Majed bin Ibrahim Alfuwaiz presented how integrating occupational safety and health into the national strategy Saudi Vision 2030 creates a comprehensive framework where prevention supports broader social and economic development goals. National strategies gain power when tied to long-term policy priorities.

3. Adaptive regulation ensures resilience in a changing world.

Sarah Albon emphasized HSE's approach to evidence-based policymaking and flexible regulatory approaches. With risks evolving due to technology, demographics, and new work models, prevention requires institutions capable of continuous adaptation without losing consistency.

4. Holistic and locally tailored approaches strengthen prevention.

Toru Takegoshi from Japan highlighted systematic prevention approaches to health protection and promotion for workers facing heat stress, while Mr El Hadj Ibrahima Diallo from Senegal demonstrated the importance of tailoring strategies to challenging local realities and embedding them in social protection systems. These examples show that prevention is most effective when aligned with cultural, social, and economic contexts.

5. Innovation and data are reshaping prevention.

Silas Sng of Singapore showcased how technology, data-driven policies, and behavioural insights can make prevention more proactive and impactful. Harnessing digital tools allows risks to be anticipated and addressed before they escalate.

Conclusion:

Together, these insights reaffirm that national prevention strategies that foster collaboration, align with broader visions, remain adaptive, respect local realities, and embrace innovation provide the strongest foundation for building a global culture of safety, health, and wellbeing.



17S1-1



The potential of EMS rehabilitation in a super-aging society

Moderator	The physiological effects of EMS (Electrical Muscle Stimulation) and its potential application in preventing occupational injuries	The potential of EMS in a super-aging society	EMS exercise therapy for elderly dialysis patients
  MTG Keiko Ishitani Senior Executive Officer, General Manager of SIXPAD Division, MTG Co.,Ltd., Japan	   中京大学 CHUKYO UNIVERSITY Kohei Watanabe Professor, Faculty of Health and Sport Sciences, Chukyo University, Japan	   金沢大学 KANAZAWA UNIVERSITY Yuichi Nishikawa Associate Professor, Faculty of Frontier Engineering, Institute of Science & Engineering, Kanazawa University, Japan	   名古屋共立病院 Yoshifumi Moriyama General Manager, Department of Rehabilitation, Medical Corporation Kaikokai, Nagoya Kyoitsu Hospital, Japan

17S1-2



Our innovative clothing technology that promotes blood circulation

Moderator Social Significance of New Clothing Technology in Japan	Health and Anti-aging brought by promoting blood circulation	Current status of rehabilitation medicine and the possibility of promoting blood circulation
  MTG Jyunya Takenaka Director, ReD VITALWEAR Division, MTG Co.,Ltd., Japan	   THE UNIVERSITY OF OSAKA Nobuyuki Takakura Professor, Research Institute for Microbial Diseases, The University of Osaka, Japan	   森ノ宮医療大学 Shintaro Kudo Professor (Director), Inclusive Medical Science Research Institute, Morinomiya University of Medical Sciences, Japan

Summary

As we enter the era of 100-year lifespans, there is a growing need to create a society where everyone can live healthily and work actively throughout their lives. While age-related changes in physical function are natural, appropriate technologies and approaches can enable people to continue working safely and comfortably as they age.

This symposium explored two innovative approaches toward achieving this goal:

EMS (Electrical Muscle Stimulation) rehabilitation and blood flow enhancement technologies, aiming to improve safety, health, and well-being across all generations.

Session 1: EMS Rehabilitation

Three experts presented on the potential of EMS rehabilitation:

Professor Watanabe from Chukyo University explained the effectiveness and mechanisms of EMS, which passively stimulates muscles to maintain and improve physical function.

Associate Professor Nishikawa from Kanazawa University introduced research on EMS interventions for frail elderly patients, suggesting that alternative exercise may also help prevent dementia.

Dr. Moriyama from Nagoya Kyoitsu Hospital (Kaikoukai Medical Corporation) shared practical examples involving dialysis patients, demonstrating that EMS rehabilitation can effectively prevent sarcopenia and reduce the risk of falls and fractures in patients undergoing 4-hour dialysis sessions three times a week.

Session 2: Blood Flow Enhancement Technology

The second session introduced “VITALTECH”, a blood flow enhancement technology developed by MTG Co., Ltd. This technology uses special fibers infused with ceramics that emit far-infrared rays to promote blood circulation, helping with fatigue recovery and alleviating back and shoulder stiffness. Its key feature is ease of use—anyone, regardless of age or gender, can incorporate it into daily life, supporting sustained health maintenance.

Professor Takakura from the University of Osaka also shared insights on the importance of blood flow for beauty and health, reaffirming its vital role in transporting oxygen and nutrients essential for life.

Key Takeaways

Across both sessions, the importance of preventive approaches was clearly highlighted.

EMS enables active intervention for those with limited mobility, while blood flow enhancement supports ongoing health improvement in everyday life.

These technologies complement each other and contribute to building a comprehensive health support system that allows people of all ages to work safely.

Global Outlook

The advanced Japanese technologies presented at this symposium hold great potential for addressing global health challenges.

International collaboration—especially with rapidly developing regions like Saudi Arabia and the Middle East—offers opportunities to enhance mutual technological capabilities and foster new innovations.

MTG Group Vision

Under its corporate philosophy,

“When one shines, all shine, and everything shines,”

MTG Group aims to create a radiant future for employees, customers, partners, and society as a whole.

Its business vision, “VITAL LIFE – Realizing healthy, beautiful, and vibrant lives for people around the world,” reflects a commitment to both sustainable environmental stewardship and the advancement of human society.

Through Japanese health technologies, MTG contributes to the realization of GISHW’s vision: ensuring safety, health, and well-being for the world’s 8 billion people.

17S2

Digital Transition of Prevention

Moderator	From Strategy to Experimentation: Leveraging Digitalization for Safety, Health and Well-being	AI and the Future of Social Protection - How AI prevents Workplace Accidents	Digitization and Technological Solutions to Improve Safety and Well-being in the Work Environment – Hong Kong’s Experience
  Hans-Horst Konkolewsky President, International ORP Foundation, Denmark	  Andresa Hernandez Vice President Safet, Siemens AG, Brazil	  Jakob Kort Co-Head Digital Transformation & Corporate Development, BG Bau, Germany	  Winson Yeung Principal Consultant, Occupational Safety and Health Council (OSHC), Hong Kong Special Administrative Region, China

Summary

1. A paradigm shift toward predictive, human-centred prevention
- Moderator Hans-Horst Konkolewsky (President ORP) opened by describing how digital technologies - especially AI, data analytics, and IoT - are moving occupational safety and health (OSH) from reactive responses to proactive and personalized prevention. He emphasized that technology must be guided by strong, ethical OSH leadership that uses data responsibly and keeps people at the centre of transformation.
2. Strategic vision and experimentation drive adoption
- Andresa Hernandez (Vice President of Safety, Siemens) explained how Siemens turns digital strategy into experimentation to enhance safety, health, and well-being. Pilots and iterative learning allow tools such as digital twins, mobile platforms, and analytics to scale effectively. Her message: sustainable digital safety comes from a culture of innovation and learning, not just the installation of tools.
3. Empowering workers through digitization and engagement
- Dr. Winson Yeung (Principal Consultant, Occupational Safety and Health Council, Hong Kong Special Administrative Region, China) 19presented Hong Kong’s experience in using digital platforms to improve workplace safety. Through mobile reporting, e-learning, and predictive data systems, workers and institutions collaborate in real time. The approach shows that digitalization can democratize prevention, giving frontline employees visibility and a stronger voice.
4. Artificial intelligence reshapes social protection and risk prediction
- Jakob Kort (Co-Head Digital Transformation & Corporate Development, BG Bau) demonstrated how AI can forecast and prevent accidents by analysing complex data patterns, enabling the accident insurance to focus their inspection activities and assist insured companies in strengthening their prevention efforts for groups and areas most at risk. He warned, however, of challenges such as data overload, algorithmic bias, and skill gaps, stressing that human oversight are vital for credible AI-driven prevention.
5. Collaboration and culture underpin lasting transformation
- The session highlighted that digital transformation is redefining prevention - not just through technology but through culture. AI, data, and connected tools enable proactive, human-centred safety, yet success depends on leadership, ethics, and collaboration. True progress comes when digital innovation supports trust, engagement, and shared responsibility, making prevention part of everyday work rather than a separate task.



17S3



Effective Strategies for Implementing Vision Zero in Workplaces

Moderator	Finland's Vision Zero Forum's Practical Strategies for Reaching Workplaces	Engaging workforce in caring culture – vision zero starts from the first impression	Safety Culture Change at Konecranes	A serious accident changed the safety culture – An example case from a construction site
 Tommi Alanko Director of Occupational Safety Unit Finnish Institute of Occupational Health (FIOH) Finland	 Tiina-Mari Monni Development Manager at the Finnish Vision Zero Forum, Finland	 Antti Leino Vice President of HSE at Skanska Finland, Finland	 Mikko Välimaa Vice President of HSE and Crisis Management at Konecranes, Finland	 Timo Pinomäki Director of Risk Management at GRK Infra, Finland

Summary

The symposium on "Effective Strategies for Implementing Vision Zero in Workplaces," organized by Finnish Institute of Occupational Health and the Finnish Vision Zero Forum, took place in July 2025. The event aimed to discuss and share best practices in workplace safety, health, and well-being.

The symposium featured several distinguished speakers:

1. Tiina-Mari Monni, Development Manager at the Finnish Vision Zero Forum, discussed practical strategies for reaching workplaces. Monni emphasized the importance of tailored approaches to different workplace environments to effectively implement Vision Zero principles. In the Vision Zero Forum, involving member organizations and their representatives has been an essential way to reach and engage workplaces to the initiative.
2. Antti Leino, Vice President of HSE at Skanska Finland, focused on engaging the workforce in a caring culture. Leino highlighted that Vision Zero starts from the first impression and stressed the significance of leadership in fostering a safety-first mindset among employees.
3. Mikko Välimaa, Vice President of HSE and Crisis Management at Konecranes, covered the transition from blame to learning. Välimaa shared insights on creating a collaborative culture where employees feel safe to report incidents and learn from them without fear of retribution.
4. Timo Pinomäki, Director of Risk Management at GRK Infra, presented a compelling case study on how a serious accident changed the safety culture at a construction site. Pinomäki's presentation underscored the transformative power of critical incidents in driving safety improvements.

The session concluded with a panel discussion on best practices for implementing Vision Zero at workplaces. The panelists shared their experiences and answered questions from the audience, providing valuable insights into the challenges and successes of Vision Zero initiatives.

In his closing remarks, Tommi Alanko reiterated the importance of continuous improvement and collaboration in achieving Vision Zero goals. He thanked the speakers and participants for their contributions and encouraged everyone to apply the lessons learned in their respective organizations.

17G1-1



Practice track sessions The Past and Future of Occupational Health in Japan

Part I: The Trajectory of Occupational Health in Japan: 1929-2025

Moderator	The Evolution and Challenges of Occupational Health Policy in Japan	Prevention of Occupational Diseases due to Hazardous Chemicals	Work stress and Karoshi	Video Presentation
 Koji Mori Professor, University of Occupational and Environmental Health (UOEH)	 Seichi Horie University of Occupational and Environmental Health (UOEH)	 Michihiro Kamijima Department of Occupational and Environmental Health, Nagoya City University Graduate School of Medical Sciences	 Akizumi Tsutsumi Professor, Kitasato University School of Medicine	"Mitigation and Prevention of COVID-19 at Work (100th Anniversary)"

17G1-2



Practice track sessions The Past and Future of Occupational Health in Japan

Part II: The Future of Occupational Health in Japan

Moderator	Moderator	Promoting Work- place Mental Health and Well-Being	Policy and Practice of Health and Pro- ductivity Manage- ment in Japan	Occupational Health in Times of Crisis: Lessons from Japan	Shaping Future OH Professionals
 Toru Takebayashi Professor, Keio University, Japan	 Etsuko Yoshikawa Associate Professor, Japan Red Cross College of Nursing	 Akihito Shimazu Faculty of Policy Management, Keio University, Japan	 Tomohisa Nagata University of Occu- pational and Environ- mental Health, Japan (UOEH), Japan	 Seiichiro Tateishi Disaster Occupation- al Health Center University of Occu- pational and Environ- mental Health, Japan	 Koji Mori University of Occu- pational and Environ- mental Health, Japan Former President of JSOH, Japan

17G1 Summary

1. Theme and Background of the Event/Session

The Japan Society for Occupational Health (JSOH) was originally established in 1929 as the Industrial Hygiene Council and will celebrate its 100th anniversary in 2029. Over the years, the Society has contributed significantly to the development of occupational safety and health in Japan. In preparation for the 100th Annual Meeting in 2027 and the centennial in 2029, commemorative projects are underway.

Against this backdrop, a symposium was held under the theme:

“The Trajectory and Future of Occupational Health in Japan”,

structured in two parts:

Part 1: The Trajectory of Occupational Health in Japan

Part 2: The Future of Occupational Health in Japan

2. Key Points from Presentations and Discussions

Part 1: The Trajectory

Chairs: Koji Mori (University of Occupational and Environmental Health) and Akizumi Tsutsumi (Kitasato University)

Topics included:

Changes in labor hygiene policies

Prevention of occupational diseases caused by chemical substances

Occupational stress and death from overwork (karoshi)

COVID-19 countermeasures (video presentation)

Seiichi Horie (University of Occupational and Environmental Health) reviewed the evolution of legal frameworks such as the Factory Act, Labor Standards Act, and Industrial Safety and Health Act, highlighting current challenges like long working hours and an aging workforce.

Michihiro Kamijima (Nagoya City University) discussed the history of occupational diseases caused by chemical substances, the development of permissible exposure limits and biological monitoring, and emphasized the need for autonomous chemical management.

Akizumi Tsutsumi (Kitasato University) evaluated the impact of the Karoshi Prevention Act and work style reforms, pointing out the rise in mental health disorders and the lack of support for small and medium-sized enterprises.

The video session showcased the Society's contributions during the pandemic, including published guidelines and the development of a ventilation simulator in 2020.

Part 2: The Future

Chairs: Etsuko Yoshikawa (Japanese Red Cross College of Nursing) and Toru Takebayashi (Keio University)

Akihito Shimazu (Keio University) emphasized the importance of improving mental health and well-being through work engagement. Tomohisa Nagata (University of Occupational and Environmental Health) explained health management policies, the use of surveys for evaluation and certification systems, and highlighted the need to foster a health-conscious culture, especially in SMEs.

Seiichiro Tateishi (University of Occupational and Environmental Health) discussed disaster-related occupational health using examples from the Great East Japan Earthquake and the Noto Earthquake, advocating for comprehensive risk assessment and international cooperation.

Koji Mori concluded by stressing the importance of strengthening professional development in occupational health, building interdisciplinary collaboration models, and enhancing partnerships with Asian countries, reaffirming the role of JSOH.

3. Outcomes and Insights

This symposium, themed around the past and future of occupational health in Japan, attracted experts from around the world. It featured lively Q&A sessions and passionate discussions. It reaffirmed that the pursuit of health, safety, and well-being for working people is a universal challenge, regardless of a country's stage of industrial development.

4. Contributions to Future GISHW Activities and International Collaboration

Japan's accumulated experience and expertise in occupational health hold great value for the global community.

Going forward, GISHW plans to actively promote international collaboration, leveraging Japan's strengths to contribute to global occupational health and well-being.

GISHW
@EXPO2025Technical
Tours

Party

High-level
SummitWorld
AssemblyStandard-
ization ForumMukai-dono
Safety AwardFinejobble
Well-beingInt'l
SymposiumILO Youth
Congress

Festival

Exhibition

Baton to
RiyadhOsaka
Declaration

Messages

17G5



Leading Safety: The Impact of Emotionally Intelligent Leadership on Workplace Wellbeing

Moderator	Panelist	Panelist	Panelist
  Steve Conway Director of Leadership and Psychological Safety (MSABC) Canada	  Wayne Arondus CEO, Manufacturing Safety Alliance of British Columbia, Canada	  Michael Simone President Puratos, Canada	  Ehsan Etezaad CEO and Behavioural Scientist, MEUS Science and Weekly Performance Science, Canada

Summary

1. Theme and Background of the Event/Session

The Japan Society for Occupational Health (JSOH) was originally established in 1929 as the Industrial Hygiene Council and will celebrate its 100th anniversary in 2029. Over the years, the Society has contributed significantly to the development of occupational safety and health in Japan. In preparation for the 100th Annual Meeting in 2027 and the centennial in 2029, commemorative projects are underway.

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Part 2: The Future of Occupational Health in Japan

2. Key Points from Presentations and Discussions

Part 1: The Trajectory

Chairs: Koji Mori (University of Occupational and Environmental Health) and Akinori Tsutsumi (Kitasato University)

Topics included:

Changes in labor hygiene policies

Prevention of occupational diseases caused by chemical substances

Occupational stress and death from overwork (karoshi)

COVID-19 countermeasures (video presentation)

Masatomo Horie (University of Occupational and Environmental Health) reviewed the evolution of legal frameworks such as the Factory Act, Labor Standards Act, and Industrial Safety and Health Act, highlighting current challenges like long working hours and an aging workforce.

Michihiro Ueshima (Nagoya City University) discussed the history of occupational diseases caused by chemical substances, the development of permissible exposure limits and biological monitoring, and emphasized the need for autonomous chemical management.

Akinori Tsutsumi (Kitasato University) evaluated the impact of the Karoshi Prevention Act and work style reforms, pointing out the rise in mental health disorders and the lack of support for small and medium-sized enterprises.

The video session showcased the Society’s contributions during the pandemic, including published guidelines and the development of a ventilation simulator in 2020.

Part 2: The Future

Chairs: Etsuko Yoshikawa (Japanese Red Cross College of Nursing) and Toru Takebayashi (Keio University)

Akihito Shimazu (Keio University) emphasized the importance of improving mental health and well-being through work engagement.

Tomohisa Nagata (University of Occupational and Environmental Health) explained health management policies, the use of surveys for evaluation and certification systems, and highlighted the need to foster a health-conscious culture, especially in SMEs.

Kiyoichiro Tateishi (University of Occupational and Environmental Health) discussed disaster-related occupational health using examples from the Great East Japan Earthquake and the Noto Earthquake, advocating for comprehensive risk assessment and international cooperation.

Koji Mori concluded by stressing the importance of strengthening professional development in occupational health, building interdisciplinary collaboration models, and enhancing partnerships with Asian countries, reaffirming the role of JSOH.

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Going forward, GISHW plans to actively promote international collaboration, leveraging Japan’s strengths to contribute to global occupational health and well-being.

17G2



5 ways to build a High-Risk management culture and 4 ways to destroy it

Moderator	Panelist	Panelist	Panelist	Panelist
 Malcolm Staves Global VP Health & Safety, L'Oréal France	  Corrie Pitzer CEO, SafeMap Canada	  Ganem Chekili Global Head, HSE and Sustainability, Hitachi Energy, France	  Ace Tiston Director Scale Up, L'Oréal The Philippines	  Mousa Yassin CEO, Pixaera UK

Summary

The main insights from the presentation and discussion with attendees where High-risk management is critical to a company because it deals with the threats that could cause the most significant damage. A high risk, if it materializes (like a massive cyber-breach, a fatal accident a major regulatory fine, or a critical supply chain failure), can stop operations, destroy reputation, loss of confidence by employees which in turn could lead to catastrophic financial loss, potentially bankrupting the business.

The Core Insights from the presentations and discussions

Why It Matters:

1. Protects Organizational Viability

Effective high-risk management is essential to ensure that people are protected from serious incidents from exposure to work. It is also vital for company survival ensures the company has the resilience to withstand major shocks. By identifying and developing mitigation or contingency plans for these worst-case scenarios, a company protects its people, core assets, maintains operational continuity, and significantly increases its chances of a rapid recovery.

2. Safeguards Value and Reputation

A proactive approach looks for serious events before they have happened. It puts in place the controls necessary, so the event does not happen or the potential of it happening is very low. Serious accidents can have an impact of employee morale and trust as well as a devastating impact of the surviving families and colleagues.

Key Benefits:

1. Better Strategic Decision-Making

Risk insights move decision-making from guesswork to a data-driven process and new technology has a significant role to play. Data driven decision making can ensure that the right risks are focused on. Data is key as it will ensures resources are focused on the most important risks including protecting and enhancing human life

2. Regulatory Compliance and Employee Credibility

Managing high risks ensures effective risk control that reduces the likelihood of serious injuries and illnesses that can be associated with reputation, image, financial stability and enhanced performance over the long term. High risk management is a fundamental necessity in today's world

High-risk management is a strategic discipline that transforms potential threats into manageable uncertainties, allowing the company to operate, innovate, and grow with confidence whilst protecting the health, safety and wellbeing of its employees, visitors and contractors.

3. Conclusions

The conclusions of how to create a high-risk management culture were:

- Safety by Design
- Co-construction
- Top-Down approach
- Globalization – for multinational organizations
- Integrate new technology for better decision making

Where the 4 main ways to destroy were identified as

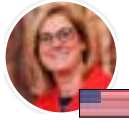
- No support from management
- Focus only on legislative compliance
- No leading KPI's
- No follow up by management



17G3



People Sustainability: The Value of Health and Safety at Work

Moderator	Panelist	Panelist	Panelist	Panelist
  Kathy A. Seabrook CEO, Global Solutions, Inc/ Advisory Panel, Capitals Coalition, USA	  Andresa Hernandez Global Vice-President of Safety, Siemens AG Munich, Germany	  Stuart Hughes Past President, Institution of Occupational Health, and Safety, UK	  Kazuyuki Igeta Head of Quality and EHS, L'Oréal Japan	  Rebecca Hickman Chief Executive Officer, The Royal Society for the Prevention of Accidents (RoSPA)(UK/Global), UK

Summary

The session included a multifaceted panel of corporate global and local Japanese safety and health leaders and professionals, the past president of the Institution of Occupational Safety and Health (a safety and health professional membership body based in the UK) and the CEO of the Royal Society for the Prevention of Accidents (RoSPA). The session engaged the audience in a workshop style discussion on the value of safety, health and wellbeing.

Key Insights and Conclusions:

- The panelists and attendees shared their personal and their organization's perspective on the value of Health and Safety for people at work. There was consensus on 'People Sustainability,' where the people side of sustainability interconnects with and is equally important to environmental impact management.
- One key insight from this session was the importance of sustaining people at work, through their health, safety and well-being. This insight was affirmed through the perspective of the panelists with audience discussions and input.
- When safety, health and wellbeing at work are embedded in a company's culture, strategy and leadership decision making, people are sustained, and business thrives.
- Wellbeing and mental health are a newer responsibility for safety and health professionals. Consensus was it is a shared role with human resources and operational leaders. However, safety and health professionals do have a role to assure the wellbeing/mental health of people at work.
- The value of people, a company's 'human capital', is demonstrated through company policies, individual and leadership interactions and communications and most of all in decisions that action good safety and health risk management.
- Corporate safety and health standards implemented globally may be implemented differently but with the same expectation for a safety and health workplace. This is based upon the maturity of safety and health management country to country.
- There was also consensus that worker safety, health and wellbeing go beyond the traditional boundaries to the workplace. That the loss of a worker due to a fatality or disability outside of work impacts a company's ability to operate. RoSPA, for example has been a leader in advocating for road safety where road traffic incidents are the leading cause of worker fatalities in the world. This safety and health risk occurs outside of a typically recognized workplace.



17H1



New Era of Safety: Collaborative Safety

Moderator	Moderator	Safety & Security for Health and Well-being	The Future of Manufacturing and German-Japanese Cooperative Technology for Collaborative Safety	
 Kazutsugu Suita Director, Member of the Board, the Institute of Global Safety Promotion(IGSAP) / Professor, Department of Mechanical Systems Engineering, Daido University, Japan	 Rolf Ellegast Institute Director, Institute for Occupational Safety and Health of the German Social Accident Insurance (IFA), Germany	 Thomas Pilz Managing Partner, Pilz GmbH & Co. KG, Germany	 Kenshin Yokose Director, FA Business Development Div., DENSO CORPORATION, Japan	 Werner Kraus Head of Automation and Robotics Division / Fraunhofer Institute for Manufacturing Engineering and Automation IPA, Germany
Machinery Safety Issues in Manufacturing Sites and Monodzukuri Committee's Activities of Resolving them through Collaborative Safety	Automation of manufacturing sites with safe and secure collaborative robots with ease of use even for first-time robot users	Signage-Based Approaches to Collaborative Safety: Technological Trends and Standardization Prospects	Next-generation manufacturing based on Data with i3-Mechatronics	Introduction of Panasonic Automotive Systems (PAS) Collaborative Safety and Health Initiatives
 Masaki Nobuhiro Chair, Monodzukuri (Manufacturing) Committee, IGSAP Project Manager, Safety & Health Promotion Div., TOYOTA MOTOR CORPORATION, Japan	 Masahiro Morioka Chief Engineer, Robot Mechanical Research & Development Division, Robot Research & Development Division, FANUC CORPORATION, Japan	 Daichi Mizuguchi President, Atelier Corporation, Japan	 Takashi Nishimura Deputy section manager, Robot Technology Dept. Robotics Div., YASKAWA ELECTRIC CORPORATION, Japan	 Takanori Kikuchi Manager, Operation Division, Production Strategy and Technology Center, Production Engineering Strategy Department, Manufacturing Process Innovation Section, Panasonic Automotive Systems Co., Ltd., Japan

Summary

Safety in a New Era: Collaborative Safety

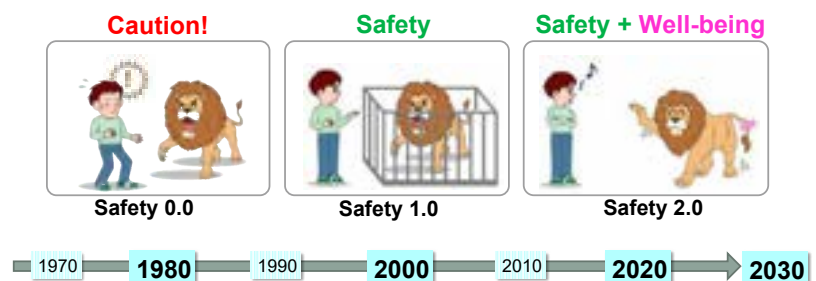
As human-machine collaboration becomes increasingly common in workplaces, traditional safety measures that physically separate humans and machines are often impractical. In shared workspaces and timeframes, a new safety concept is needed—"Collaborative Safety"—which leverages information and communication technologies to enable safe and efficient operations without physical separation. Collaborative Safety is a framework that allows humans and machines to work together in the same space safely and efficiently, not by isolation but through intelligent coordination.

Key Outcomes and Insights

The symposium successfully shared technologies and standardization trends from multiple perspectives, proposing a new relationship between humans and machines in future manufacturing environments. It reaffirmed the necessity of collaborative safety, the importance of shared understanding, and the creation of co-creation partnerships. Moreover, it was confirmed that these technologies are not limited to industrial applications—they can also be extended to construction and service sectors.

Looking Ahead

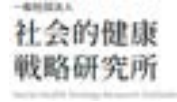
Standardization is crucial for embedding collaborative safety technologies into industry and society. Japan is expected to take the lead in accelerating international standardization, and promoting global research and practical technology development through collaboration among industry, government, and academia.



17H2



Human Sensing and Augmentation towards Well-being Management

Moderator Introduction—Human sensing and Augmentation towards Well-being Management	Digitalizing occupational safety: exposure documentation with OMEGAone	Researches on QoW Assessment by Measuring Employees' Operation in Industrial Fields	The Symphony of Humans and Robots-New Ways of Working to Pioneer the Future of Well-being
  Masaaki Mochimaru Fellow, National Institute of Advanced Industrial Science and Technology (AIST), Japan	  Manuel Kühn Section Manager "Development and Organization in the MGU", Institute for Occupational Safety and Health of the German Social Accident Insurance (IFA), Germany	  Ryosuke Ichikari Group leader, Research Institute on Human and Societal Augmentation, AIST, Japan	  Hirokazu Bruce Tanaka President & CEO, Remote Robotics Inc., Japan
International Standards to Support the promotion of wellbeing in communities: Introduction of ISO 25554 and Future Prospects	Trends in Health and Wellbeing Management in Japanese Companies	Fostering a Culture of Voluntary Challenge: Nitto Group's Strategic Vision for Organizational Growth	Towards social implementation of AI safety and quality management for 'Responsible AI'
  Minako Hosono Senior researcher, Human State Design Research Team, Integrated Research Center for Wellbeing, National Institute of Advanced Industrial Science and Technology, Japan	  Ken'Ichiro Asano Head, Social Health Strategy Research Institute, Japan	  Yasuharu Bando Director, Japan Region HR & Governance Div. Deputy Director, Corporate HR Div., NITTO DENKO CORPORATION, Japan	  Takaaki Namba Senior Lead Engineer, Panasonic Holdings Corporation, Japan

Summary

Supporting Well-being Management through Human Measurement and Human Augmentation

Research is underway on human measurement technologies that capture employees' behavioral and physiological data in offices and service workplaces, and human augmentation technologies that visualize work and mental/physical conditions to enhance engagement, and even provide labor support using robotics. Driven by the practical adoption of wearable sensor devices and a shift in corporate awareness toward improving employees' Quality of Working (QoW), these technologies are beginning to be applied in workplaces and service sites, contributing to improved well-being.

In corporate management, health management that considers employees' mental and physical health and well-being management aimed at realizing well-being are gaining importance. In 2024, ISO TC 314 established guideline standards for well-being management. This is expected to serve as a driving force for promoting well-being management in corporate operations.

In this session, starting with a keynote lecture by Manuel Kuhn of IFA, we heard from Ryosuke Ichikari of AIST and Hirokazu Tanaka of Remote Robotics Inc. about efforts to create new ways of working and improve QoW using human measurement, collaborative robots, and teleoperated robots. Minako Hosono of AIST and Ken'Ichiro Asano of the Institute for Social Health Strategy presented trends in international standards for well-being management and the current state of health management in Japan.

Furthermore, Yasuharu Bando of Nitto Denko shared cases of new work styles inclusive of people with disabilities, and Takaaki Namba of Panasonic Holdings gave a talk on the AI safety and quality management that underpin these efforts.

From the audience, questions were raised about the possibilities and risks brought by these new technologies and how to achieve social implementation using standards, leading to lively discussions.



17H3



Human-Centered Well-Being Tech From Behavioral Analysis to Digital Humans

Moderator Introduction—Human sensing and Augmentation towards Well-being Management	Digitalizing occupational safety: exposure documentation with OMEGAone	Researches on QoW Assessment by Measuring Employees' Operation in Industrial Fields	The Symphony of Humans and Robots—New Ways of Working to Pioneer the Future of Well-being
  Mitsunori Tada Team Leader, National Institute of Advanced Industrial Science and Technology (AIST), Japan	  Christoph Schiefer Section Manager "Innovation work design", Institute for Occupational Safety and Health of the German Social Accident Insurance (IFA), Germany	  Rieko Hojo Associate Professor, Nagaoka University of Technology, Japan	  Takayuki Tanaka Professor, Faculty of Information Science and Technology, Hokkaido University, Japan
International Standards to Support the promotion of well-being in communities: Introduction of ISO 25554 and Future Prospects	Trends in Health and Wellbeing Management in Japanese Companies	Fostering a Culture of Voluntary Challenge: Nitto Group's Strategic Vision for Organizational Growth	Towards social implementation of AI safety and quality management for 'Responsible AI'
  Tsubasa Maruyama Senior Researcher, Digital Human Research Team, Artificial Intelligence Research Center, National Institute of Advanced Science and Technology, Japan	  Shigekazu Shikoda Special Chief Researcher, System Infrastructure Technology Development Department, System Technology Development Center, Technology Development Headquarters, Kawasaki Heavy Industries, Ltd., Japan	  Takeshi Furuya Expert Engineer, Cab Development Center, Development Division, Komatsu Ltd., Japan	  Yuji Ito Research Lead, R-Frontier Div., Frontier Research Center, Toyota Motor Corporation, Japan

Summary

Human-Centered Well-being Tech — From Behavioral Analysis to Digital Humans

This session, titled “Human-Centered Well-being Tech — From Behavioral Analysis to Digital Humans,” reaffirmed that improving well-being—including maintaining workers’ health and reducing physical burdens—is an essential challenge alongside enhancing efficiency and productivity in production environments.

Against this backdrop, the session explored a new direction beyond traditional monitoring and anomaly detection using sensors and wearables. It focused on modeling human behavioral and physical characteristics and directly applying these models to workplace environment design and task support. This approach was framed as “human-centered well-being tech.”

Key Presentations and Insights

The session featured:

- Ergonomic evaluations using inertial measurement devices
- Workplace optimization based on behavioral analysis
- Physical burden reduction through assist suits
- Collaborative task support using digital humans

These cutting-edge academic research findings were complemented by practical case studies from the manufacturing and construction industries, showcasing simulations and digital applications. The session highlighted the value of integrating academic and industrial perspectives to expand the scope and future potential of well-being tech.

Challenges and Future Directions

Key challenges for real-world implementation included:

- Flexible adaptation to individual differences
- Establishing objective indicators to measure effectiveness
- Deploying technologies that meet on-site needs

Particularly, the use of digital humans and behavioral simulations as central tools demonstrated the potential for integrating multiple technologies. The session offered concrete directions for bridging research and practice.

Looking ahead, international collaboration to develop common evaluation methods and standards will be essential. This will enhance the effectiveness of well-being tech and contribute to global workstyle reform, safety, and health.

17F1



From i-Construction to DX and i-Construction 2.0: Collaborative Efforts Among Industry, Government, and Academia

Moderator	Moderator	Promoting Workplace Mental Health and Well-Being	Policy and Practice of Health and Productivity Management in Japan	Occupational Health in Times of Crisis: Lessons from Japan	Shaping Future OH Professionals
 Hirotaka Nobuta Counsellor for Innovation, Minister's Secretariat, Ministry of Land, Infrastructure, Transport and Tourism, Japan	 Pang-jo Chun Project Professor, The University of Tokyo, Japan	 Kazuyoshi Tateyama Professor, Research Organization of Science and Technology, Ritsumeikan University, Japan	 Shuko Nosaka Kinki Regional Development Bureau, Ministry of Land, Infrastructure, Transport and Tourism, Japan	 Fumiya Matsushita Advanced Technology Group, Innovation Promotion Department, Civil Engineering Technology Headquarters, Shimizu Corporation, Japan	 Yoshiyuki Kawamura Director, Infrastructure Digital Transformation Office, Kinoshita Construction Co., Ltd., Japan

Summary

The Ministry of Land, Infrastructure, Transport and Tourism (MLIT) has promoted i-Construction since 2016 with the goal of boosting construction site productivity by 20%. Building on this, since 2020 MLIT has been advancing DX in the infrastructure sector, aiming to transform infrastructure-related operations, organizations, processes, culture, and work styles through the use of data and digital technologies.

In 2024, MLIT set forth i-Construction 2.0 as a key initiative in the Infrastructure DX Action Plan for the construction field. Its vision is to realize construction sites where diverse talent can thrive through flexible work styles, while improving each worker's productivity and value-added through labor-saving measures, and reducing on-site incidents.

Session Overview

In this session, five speakers presented initiatives that contribute to Well-being on construction sites from the perspectives of academia, industry, and government.

Academic perspectives:

By integrating AI into drone-based bridge inspections, it becomes possible not only to verify phenomena, but also to assess damage and estimate causes. Leveraging ICT technologies enhances construction safety and enables the participation of people who traditionally have not been involved in construction, thereby securing a more diverse workforce.

Industry perspectives:

In local construction companies, promoting i-Construction 2.0 leads to profit-sharing with employees. At national-level companies, by managing data status and strengthening inter-company collaboration, both contracting and subcontracting parties can experience tangible benefits.

Government perspectives:

By advancing Infrastructure DX and i-Construction 2.0 on actual construction sites, work styles in the construction industry are undergoing transformation. It was also emphasized that human resource development related to Infrastructure DX will remain crucial going forward.

Outlook and Need for Transformation

Japan's construction sites face a severe decline in labor force. At the same time, the development and adoption of new technologies are driving transformative changes in how work is conducted on-site. It is essential to view this difficult situation as an opportunity to evolve and step up, and to push forward with further transformation.



17F2



Sustainable Wood Structures: Architecture in Harmony with Nature and People

Moderator Architecture by wood, eco-cycle by wood	Video Message	Wood architecture and well-being	Combining traditional and modern techniques to create a well-being and sustainable wooden space	The Well-being of Con- struction Sites Brought by Timberrization
  Masahiro Harada Architct/MOUNT FUJI ARCHITECTS STUDIO Professor/Shibaura Insti- tute of Technology, Japan	  Kengo Kuma President Kengo Kuma & Associates (KKAA), Japan	  Koichiro Nakashima President and CEO, Meiken Lamwood Corpo- ration, Japan	  Ryo Nagasawa Design Division, Shimizu Corporation Japan	  Yoshiki Sakuramoto Carbon Neutral & Wood Solutions Dep., Obayashi Corporation Japan

Summary

On July 17, 2025 (14:00–16:00), at INTEX Hall F, the IGSAP Construction Committee held a conference titled “Nature- and Human-Friendly Architecture in Wooden Structures” to discuss the relationship between wooden architecture and well-being. Each speaker gave a slide lecture about their respective activities. After these presentations, a 15-minute symposium-style discussion and exchange of opinions was held based on the lectures.

- Appropriate use of timber (including the potential of hybrid wooden structures combining pure timber construction with other methods),
- Current status of cost reduction and productivity improvement in timber,
- Datafication and commonization of wooden architecture.

Following that, under the theme “Sustainable Wood Structures: Architecture in Harmony with Nature and People”, opinions were exchanged on:

- Regional energy supply based on timber, including waste wood,
- Architectural design and systems enabling circular use of timber.

Although brief, the conference was highly substantive, covering historical knowledge of wooden architecture, new spatial possibilities enabled by cutting-edge materials and construction methods, and extending beyond individual buildings to address the healthy sustainability of cities and natural environments—what we call sustainable well-being.



GISHW @EXPO2025	Technical Tours	Party	High-level Summit	World Assembly	Standard- ization Forum	Mukaiono Safety Award	Finepubble Well-being	Int'l Symposium	ILO Youth Congress	Festival	Exhibition	Baton to Riyadh	Osaka Declaration	Messages
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17F3



Remote technology enables safe and secure work sites, disaster response, and well-being

Moderator Realizing a New re-remote World: Creating New Value fo the Future Society through Remote Technology - Well-being through Safe and Secure Workplaces	Remote control and automation supporting safety and well-being - National Initiatives to transform disaster sites and work styles -	Tower Crane Remote Control System	Well-being Considerate Mountain Tunnel Construction with Remote and Automated Technologies	TDBC's "e-Construction machine Challenge" to realize well-being through remote operation	Shaping a Safer, Healthier Future with Remote Technologies: Unlocking New Value for Society
  Yasushi Ikeda Construction Machinery & Industrial Machinery Dept., Supervisor, New Business Development, Itochu TC Construction Machinery Co., Ltd, IGSAP, Japan	  Kazuyuki Kikuta Director for Construction Automation Planning, Counsellor for Innovation Group, Minister's Secretariat, Ministry of Land, Infrastructure, Transport and Tourism (MLIT), Japan	  Takafumi Kakizaki Leader, Development Group, East Japan Engineering Depot, Takenaka Corporation, Japan	  Masayuki Yamashita Director of the Technical Research Institute, Nishimatsu Construction Co., Ltd., Japan	  Masahide Suzuki Executive Director Transportation Digital Business Conference (TDBC), Japan	  Reyes. Tatsuru Shiroku Founder and CEO, ARAV Corporation, Japan

Summary

We organized a session on the theme of how the advancement of remote technologies can contribute to the realization of a well-being society, inviting speakers from various sectors such as government agencies, construction companies, technology start-ups, and other organizations involved in remote and automated development.

First, Mr. Kikuta, Planning Specialist from the Ministry of Land, Infrastructure, Transport and Tourism, presented on the direction and roadmap for improving productivity through automation at construction sites, as well as examples of how remote technologies have been utilized in disaster sites and general construction projects.

From the construction industry, Mr. Kakizaki, Group Leader at Takenaka Corporation, explained efforts to implement remote and automated tower crane operations in the architectural field, while Mr. Yamashita, Director at Nishimatsu Construction, described the current status of remote and automated initiatives in mountain tunnel construction within the civil engineering sector. Both highlighted how these technologies enhance safety and efficiency at construction sites and illustrated a future where well-being is realized.

Mr. Shiroku, President of ARAV, a company developing remote and automated robotics technologies, introduced their numerous implementation cases and shared the future direction of technology development and initiatives.

Additionally, Mr. Suzuki, Executive Director of the Transportation Digital Business Conference (TDBC), which promotes an open platform based on the concept of "co-creation" among companies from different industries, presented initiatives such as the e-Construction Machinery Challenge, aimed at accelerating social implementation of remote technologies, fostering new talent, and creating new work styles.

Finally, Mr. Ikeda from Itochu Corporation, who chaired this session, introduced examples of remote construction sites and explained the new value creation that remote technologies will bring to future society, ultimately leading to the realization of well-being.

Through this international symposium, we gained an understanding of the current efforts from various perspectives, reaffirmed the potential of remote technologies to transform future society, and renewed our commitment to further technological advancement and social implementation to achieve well-being in the future.



18EXS1


Advancing Global Safety, Health, and Well-being: The Role of the University of Osaka
GISHW
@EXPO2025Technical
Tours

Party

High-level
SummitWorld
AssemblyStandard-
ization ForumMukai-dono
Safety AwardFinebuble
Well-beingInt'l
SymposiumILO Youth
Congress

Festival

Exhibition

Baton to
RiyadhOsaka
Declaration

Messages

69

Moderator	Opening Remarks	Manipulating the earth: the Future Automated Construction	Future Vision for Cities and Transportation: Seek- ing Safer Mobility for All	Safety Management of Infrastructures for a Sustainable and Resilient Future Society
  Shun'ichi Kuroda Director, SANKEN (The Institute of Scientific and Industrial Research), The University of Osaka	  Keiko Takemura Executive Vice President, Public Relations, Soci- ety-University Co-Cre- ation, Expo 2025, SDGs, The University of Osaka	  Masao Ishikawa Professor, Dept. of Me- chanical Engineering, The University of Osaka	  Kenji Doi Professor, Division of Glob- al Architecture, Graduate School of Engineering, The University of Osaka	  Kiyoyuki Kaito Professor, Dept. of Civil Eng., The University of Osaka
The Future of Medicine Pioneered by the Latest Optical Imaging Technology - Non-Invasive Diagnosis and Treatment	Pioneering the Future of Allergy Treatment with New Discoveries	Promise and impact of organoid medicine	Wellbeing through Genes	Flexible sensing for well-being — Next-gen- eration technology seam- lessly integrating into daily life
  Masaru Ishii Dean and Professor of Immunology and Cell Biol- ogy, Graduate School of Med- icine, The University of Osaka	  Kazuho Moro Professor, Laboratory for Innate Immune Systems, Graduate School of Med- icine, The University of Osaka	  Takanori Takebe Professor and Deputy Di- rector, Graduate School of Medicine & Premium Insti- tute for Human Metaverse Medicine(WPI-PRIME),The University of Osaka	  Masateru Taniguchi Professor, SANKEN (The Institute of Scientific and Industrial Research), The University of Osaka	  Tsuyoshi Sekitani Professor, SANKEN (The Institute of Scientific and Industrial Research), The University of Osaka
Towards the realization of a healthy and long-lived society through silicon-based agent	Closing Remarks		Closing Remarks	
  Hikaru Kobayashi Professor Emeritus, SANKEN, The University of Osaka	  Takeshi Omasa Dean, Graduate School of En- gineering and School of Engineer- ing, The University of Osaka	  Masaru Ishii Professor, Graduate School of Medicine, The University of Osaka	  Shun'ichi Kuroda Director, SANKEN (The Institute of Scientific and Industrial Re- search), The University of Osaka	

Summary

The symposium successfully showcased the University of Osaka's cutting-edge research across the domains of Safety, Health, and Well-being, offering a compelling vision for the future society 5 to 10 years ahead. Each session not only highlighted technological and scientific advancements but also emphasized their potential societal impact, aligning with global goals for sustainability, resilience, and human-centered innovation.

In the Safety domain, the integration of automation in construction machinery, innovations in urban mobility, and infrastructure management strategies demonstrated a clear roadmap toward safer, more efficient, and disaster-resilient environments. These developments are expected to contribute significantly to urban planning and smart city initiatives, particularly in regions facing aging infrastructure and increasing climate-related risks.

The Health session underscored transformative approaches to medical care, including non-invasive diagnostics, personalized allergy treatments, and regenerative medicine using organoid technology. These breakthroughs suggest a paradigm shift in healthcare delivery, moving toward more precise, less invasive, and patient-centered models. The research presented holds promise for addressing some of the most pressing medical challenges, such as cancer and chronic immune conditions, while also extending healthy life expectancy.

In the Well-being session, the focus shifted to enhancing quality of life through advanced sensing technologies, genetic insights, and novel materials. The presentations illustrated how science can enrich everyday experiences—making health monitoring seamless, integrating wellness into living spaces, and promoting longevity through innovative formulations. These efforts reflect a broader trend toward holistic well-being, where physical, mental, and social health are interconnected.

Beyond the academic and technical content, the symposium fostered meaningful international exchange, enabling face-to-face dialogue with global stakeholders. This interaction is expected to catalyze future collaborations with leading international institutions, positioning the University of Osaka as a key contributor to global innovation ecosystems. The event also reinforced the importance of interdisciplinary approaches and public engagement in shaping a future society that is not only technologically advanced but also inclusive, equitable, and human-centered.

18XS2



Safe and healthy Work in the digital Age

Moderator	Keynote Speaker	Panelist	Panelist
  William Cockburn Executive Director European Agency for Safety and Health at Work (EU-OSHA), United Kingdom	   Mario Nava Director-General, Directorate-General for Employment, Social Affairs and Inclusion (DG EMPL), European Commission, EU	   Yuka Ujita Senior OSH Specialist, ILO DWT-Bangkok	   Andreas Stoimenidis General Confederation of Workers of Greece (GSEE), Greece
Panelist	Panelist	Panelist	Panelist
  Kris De Meester Federation of Enterprises in Belgium (VBO-FEB), Belgium	   Marco Boly Inspectorate of Labour and Mines of Luxembourg, Luxembourg	   Vibe Westh European Agency for Safety and Health at Work (EU-OSHA), EU	   Charlotte Grevfors Ernoult DG Employment, Social Affairs and Inclusion, European Commission, EU

Summary

The digitalisation of work presents both challenges and opportunities, including in the field of occupational safety and health. Policy makers around the world have recognised the need for action, whether updating regulations, developing tools and knowledge, or raising awareness about the key issues. This symposium allowed high-level experts to share how policy actions can ensure that the digital transition brings benefits to workers while minimising the potential risks. Reflecting the EU's commitment to social dialogue, the symposium brought together worker and employer organisations alongside experts from the ILO, the European Commission, and the European Agency for Safety and Health at Work. The participants were:

- Yuka Ujita, Senior OSH Specialist, ILO DWT-Bangkok
- Andreas Stoimenidis, General Confederation of Workers of Greece (GSEE)
- Kris De Meester, Federation of Enterprises in Belgium (VBO-FEB)
- Marco Boly, Inspectorate of Labour and Mines of Luxembourg
- Vibe Westh, European Agency for Safety and Health at Work (EU-OSHA)
- Charlotte Grevfors Ernoult, DG Employment, Social Affairs and Inclusion, European Commission

William Cockburn, Executive Director of the European Agency for Safety and Health at Work opened the symposium. Mario Nava, Director-General, DG EMPL, European Commission, made the keynote address, setting the scene and framing the symposium in a policy context. He stressed the need for social dialogue in the formulation of policy in occupational safety and health, and put the issue of digitalisation and worker safety and health into broader policy approaches of the EU – notably the AI Act and the Platform Work Directive which uses the “human in control” concept.

Yuka Ujita gave a perspective from the Asia-Pacific Region. She noted that work in the region is still largely “blue-collar”. Mobile phone use is exploding, and it allows access to health and safety information such as extreme weather warnings which are invaluable for fishers and outdoor workers. There is a risk that there is a risk of more work in the informal sector through digital tools, which highlights the need for legislation to cover all workers.

The panel's members – including representatives of labour inspection, trades unions and employers - discussed the benefits and challenges arising from digitalisation. The removal of workers from dangerous work, flexibility in work, improved communications, better tools for inspectorates, and more access to data for researchers were all identified as positives. At the same time, the risk to the psychosocial wellbeing of workers, from an “always on” culture, from over-supervision and a lack of role clarity are present.

At a policy level, there can be a perception that legislation is always lagging behind (digital) technologies, but that this can be overcome by a process-based approach, such as the risk-assessment led model contained in European OSH Directives. The need for a global perspective was also highlighted. OSH policy also must sit in the broader context of topics such as data privacy.

Questions from the audience highlighted the need for clear terminology and taxonomy as well as the importance of training – particularly in small and medium enterprises.



18EXS3



Shaping a future of work where safety and health are at the heart of progress

GISHW
@EXPO2025Technical
Tours

Party

High-level
SummitWorld
AssemblyStandard-
ization ForumMukaidono
Safety AwardFinebubble
Well-beingInt'l
SymposiumILO Youth
Congress

Festival

Exhibition

Baton to
RiyadhOsaka
Declaration

Messages

Moderator	Panelist	Panelist	Panelist	Panelist	Panelist
 Joaquim Pintado Nunes , Chief of the Occupational Safety and Health Environment Branch at the International Labour Organisation (ILO), Portugal	 Vanessa Harwood-Whitcher , Chief Executive Institution of Occupational Safety and Health (IOSH), UK	 Prof. Seong-Kyu KANG , President of ICOH, Gachon University Gil Medical Center, Incheon, Korea Rep.	 Ana Ercoreca de la Cruz , Secretary General International Association of Labour Inspection (IALI), Spain	 Ulrike Bollmann , President, The European Network Education and Training in Occupational Safety and Health (ENETOSH), Germany	 Nancy Wilk , President International Occupational Hygiene Association (IOHA), Canada
Panelist	Panelist	Panelist	Panelist	Panelist	Panelist
 Saul Guerrero Oteyza , Director UNICEF Asia-Pacific Pillar Office in Tokyo Peru	 Linnea Wikström , Global Director of Construction and Health & Safety Building and Wood Workers International (BWI) Sweden	 William Cockburn , Director of the European Agency for Safety and Health at Work, EU	 Pierre Vincensini , Special Adviser International Organization of Employers (IOE) France	 Guilherme Schuck Candemil , Head of International Affairs, Brazilian Labor Inspectorate, Ministry of Labor and Employment, Brazil	 Yuka Ujita , Senior OSH Specialist, ILO DWT-Bangkok Japan

Summary

- A safe and healthy working environment is a cornerstone of sustainable development, underpinning progress across several Sustainable Development Goals (SDGs), notably SDG 1 (No Poverty), SDG 3 (Good Health and Well-being), SDG 8 (Decent Work and Economic Growth), and SDG 13 (Climate Action). By enhancing occupational safety and health, societies can effectively combat poverty, improve public health outcomes, sustain economic development, advance environmental protection, and improve quality of life. The symposium underscored OSH not only as a fundamental principle and right at work but also as a strategic enabler of broader development objectives.
- Inter-agency collaboration is vital to embedding OSH within broader policy efforts, requiring coordinated action among United Nations entities that address diverse public goods. This integrated approach must be mirrored at the national level through whole-of-government strategies and inclusive partnerships. Governments, employers, workers, and civil society organizations must work together to ensure that OSH is not treated in isolation but as a cross-cutting enabler of sustainable development.
- OSH professionals and their networks are also instrumental in operationalizing global commitments, translating policy into practice through technical expertise, innovation, and capacity-building. Their role is increasingly critical in adapting workplace safety and health strategies to emerging risks, such as climate change, digitalization, and demographic shifts. Strengthening these professional communities and fostering knowledge exchange will be key to scaling up effective interventions.
- The symposium provided a platform for critical reflection and strategic alignment, encouraging participants to assess the effectiveness of current OSH initiatives, identify persistent gaps, and explore opportunities for enhanced impact. It called for renewed commitment to evidence-based approaches and inclusive dialogue to ensure that OSH contributes meaningfully to the common good.
- Looking ahead, OSH must be positioned as a dynamic and integral component of sustainable development strategies, not only as a fundamental principle and right at work but as a driver of inclusive growth, social justice, and environmental protection.



18EXS4



Empowering Workplaces: A People-Centered Strategy for Safety, Health and Wellbeing

mOdEr at Or	Panelist	Visualizing chemical exposure using VEM techniques
  Vincent HO Secretary General-Elect, APOSHO Hong Kong Special Administrative Region, China	  Ahmad FAKHRUL ANUAR Bin Ismail President, Malaysian Society for Occupational Safety and Health (MSOSH) Malaysia	  Yusuke MIYAUCHI Director of Osaka Occupational Health Center, Japan Industrial Safety and Health Association (JISHA), Japan
Beyond Compliance: Building People-Centered Workplaces for Safety, Health, and Well-Being in Mauritius   Amiirah PEERBACCUS Executive Committee Member, Institution of Occupational Safety & Health Management (IOSHM), Mauritius	Why Empowering Workplaces for Safety, Health & Well-being, and How?   Dheera PHONG-ANANT Board Committee Adviser, Safety and Health at Work Promotion Association (Thailand) (SHAHPAT), Thailand	Embracing the Future – Empowering workplace safety, health and wellbeing through AI, Generative AI and technology   Bonnie YAU Executive Director, Occupational Safety and Health Council (OSHC) Hong Kong Special Administrative Region, China

Summary

At the Global Initiative for Safety, Health and Well-being (GISHW) in Osaka on 18 July 2025, the Asia-Pacific Occupational Safety and Health Organisation (APOSHO) hosted a session on “Empowering the Workplace: People-Centred Strategies in Safety, Health and Well-being.” Chaired by Professor Vincent Ho, APOSHO Secretary General-Elect, the session gathered regional leaders to share challenges and strategies that place people at the centre of workplace safety.

Five presentations highlighted approaches from different contexts:

- Prof. Vincent Ho (APOSHO):
Advocated people-centred strategies, stressing empowerment through autonomy, resources, and ethical workplace cultures.
- Dr. Dheera Phong-anant (Thailand):
Emphasised management’s role in shaping behaviour and the need for shared responsibility and consistent standards.
- Ms. Amiirah Peerbaccus (Mauritius):
Outlined Mauritius’s shift from compliance to people-focused OSH, defining safety as psychological security and recognition of well-being.
- Yusuke Miyauchi (Japan):
Presented Video Exposure Monitoring (VEM) and wearable tech to visualise chemical risks.
- Ms. Bonnie Yau (OSHC, Hong Kong Special Administrative Region, China)
Showcased AI, IoT, Generative AI and Robotics for OSH, while noting challenges such as alarm fatigue, insufficient data, standard gaps and AI literacy among OSH practitioners.

Two interactive forums deepened the exchange. The first addressed policy alignment and leadership accountability, stressing benchmarking and embedding well-being indicators in organisational performance. The second explored technology and ethics, with emphasis on co-design, transparency, and trust in employer–employee relations.

Professor Ho’s facilitation ensured connections between local experiences and broader regional strategies. His closing remarks highlighted the need to embed people-centred principles not only in workplace practice but also in OSH governance.

The session underscored a shift from compliance to empowerment and empathy. It reaffirmed APOSHO’s commitment to inclusive, tech-enabled, and ethical approaches that prioritise human dignity, well-being, and systemic resilience.



18C1



Pioneering the Future with “Cybernetics” for Healthy and Well-being Society

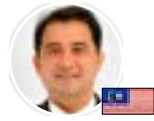
Moderator
Cybernetics Medical and Healthcare innovation for Society 5.0/5.1 to realize Global Health Innovations

Integration of Social Security and Cybernetics in Malaysia

KL Wellness City – Malaysia’s First Purpose-Built Healthcare and Wellness City
A Model for Integrated Health and Holistic Well-being



Yoshiyuki Sankai
President and CEO, CYBERDYNE Inc./Professor, University of Tsukuba/ Director, SIP Program, Cabinet Office of Japan, Japan



Hafez Bin Hussain
Chief Executive Office, PERKESO Rehabilitation Centre, Malaysia



Jacob Thomas
Executive Director of KL International Hospital, Malaysia

Summary

As a “gift to the future” for people around the world, efforts are accelerating—especially through international collaboration—to pioneer a society that supports safety, health, and well-being. At the heart of this vision is Cybernetics, a highly integrated fusion of humans and cyber-physical spaces. Cybernetics combines bio- and medical technologies with AI, robotics, and information systems to create a new societal framework: the Technopia Support Society and the Health & Well-being Society.

One of the most emblematic achievements of Cybernetics is the world’s first wearable cyborg, HAL® (Hybrid Assistive Limb®). This captures bio-electrical signals derived from the brain and nervous system non-invasively, forming a neural feedback loop between humans and robots. This technology enables the physical integration of human and robotic functions, leading to Cybernetics-based therapy that supports the improvement and regeneration of neurological and muscular functions.

In addition to HAL® (Hybrid Assistive Limb®), a suite of innovative technologies is driving this transformation:

High-precision sensing technologies that capture biological signals from the brain, nervous system, and body (e.g., compact vital sensors like Cyvis)

AI-robotic cell culture systems

Non-invasive photoacoustic imaging (e.g., AcousticX) that visualizes the 3D structure of peripheral blood vessels

Cybernization and master-remote technologies

IoH/IoT platforms for collecting, analyzing, and processing human big data with AI

C-Cloud systems for seamless data integration

Together, these technologies enable comprehensive support across the entire health continuum—from prevention and early detection to diagnosis, treatment, prognosis management, and daily life/work assistance. This leads to the realization of a Technopia Support Society, where humans and technology mutually assist and enhance each other.

In the near future, we envision a world where people everywhere can live with peace of mind, extend their healthy lifespans, and enjoy physical and mental well-being. Humanity, rather than evolving through genetic change, is now choosing to evolve in partnership with technology. In this sense, we may say that humans are becoming a new kind of life form—one that co-evolves with technological innovation.

Cybernetics, as a transformative force, truly represents a “gift to the future” for all humankind, signaling the dawn of a new era.



18C2



Climate Change and Workers' Health: construction and migrant workers

Moderator	Moderator	Opening	History: Legendary Founding History of ICOH for Worker Safety and Health: Construction Workers and the Milan Expo 1906
  Dr. Shyam PINGLE Vice President of ICOH India	  Prof. Won-Jun CHOI EIC of ICOH Newsletter, Gachon University, Incheon, Korea Rep.	  Prof. Seong-Kyu KANG President of ICOH, Gachon University Gil Medical Center, Incheon, Korea Rep.	  Dr. Diana GAGLIARDI Director, Research Section, INAIL, Italy

Health Effects by Climate Change

A Big Data Perspective in Korea: The shift of Risk - The Hidden Health Inequalities Among Workers Amidst Heat Wave Disasters	Health Impacts of Environmental Stress Caused by Climate change	Physiology of health effects by heat stress
  Jin-ha YOON Prof. of the Department of Preventive Medicine, Yonsei University, Seoul, Korea Rep.	  Prof. Seichi HORIE University of Occupational and Environmental Health (UOEH), Japan	  Jaison LEE Kai Wei National University of Singapore Singapore

Strategy for Protecting Workers from Climate Change at workplace

Climate change and work-place	Enhancing Occupational Health in Steelworks through Robotics Automation		Psychosocial effects on migrant workers in the context of extreme weather and heat stress	Heat impacts on workers' health in different geographic regions of the Global South
  Dr. Jaime LIM Ministry of Manpower, Singapore	  Dr. Kyoungho LEE POSCO, Pohang, Korea Rep.	  Dr. Hyung Wook KIM POSCO, Pohang, Korea Rep.	  Prof. Vidhya VENUGOPAL Sri Ramachandra Institute, Chennai, India	  Mahinda SENEVIRATNE Work Health Strategist Dharug Country, Australia

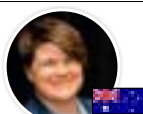
Summary

1. **Legendary Founding History of ICOH:** The ICOH was founded during the Milan EXPO in 1906 to celebrate the achievement of saving workers' lives during the construction of the Swiss Tunnel.
2. **Climate Change Intensifies Worker Health Inequities:** Heatwaves driven by climate change significantly impact worker health, but the burden is not evenly shared. Vulnerable groups—particularly non-skilled, low-income, and informal sector workers—face a disproportionate risk of heat-related illness.
3. **Risk Is Shifting, Not Shared Equally:** While some occupational groups have successfully adapted to rising temperatures through protective measures, others—especially non-skilled and informal workers—have seen increasing heat-related illness, indicating a transfer of risk rather than universal adaptation.
4. **Migrant Workers Bear a Dual Burden:** Migrant workers are especially affected, facing not only extreme heat exposure in physically demanding jobs but also psychosocial stressors such as social isolation, poor housing, lack of autonomy, and economic insecurity, which amplify mental health risks.
5. **Technological and Policy Innovations Are Effective but Uneven:** Interventions like robotics, personal cooling devices, and automated inspections (e.g., in steelworks) have proven effective in reducing heat exposure. However, access to such solutions remains limited to larger corporations, highlighting a gap for small enterprises and informal work settings.
6. **Tailored, Inclusive Interventions Are Urgently Needed:** Addressing the health impacts of climate change requires targeted, regionally adapted, and inclusive strategies—particularly for migrant and informal workers. These should include legal protections, public awareness, mental health support, and integration into national heat action plans.

18C3



The evolving role of the OSH professional

Moderator	Training and Management of Change	The OHS Body of Knowledge: A Foundation for the Evolving OHS Profession	Exposing the "dark side" of artificial intelligence
  Nathan Winter International Network of Safety & Health Professional Organisations, Immediate Past President Australia	  Michaela Murray Cook Brothers Construction, National HSSQ Manager New Zealand	  Marilyn Hubner Australian Institute of Health & Safety, OHS Body of Knowledge (BoK) Manager Australia	  Rob Day Cognisense, Managing Director Canada
From Workplace Safety to Occupational Health and Safety	Challenges and Opportunities for an evolving OHS profession	The evolution of the role of the OSH Professional in Singapore	
  Chris Peace Victoria University of Wellington, Lecturer in OHS New Zealand	  Waddah S Ghanem Al Hashmi Federal Committee for Occupational Health & Safety, United Arab Emirates, Chairman United Arab Emirates	  Bernard Lew Singapore Institute of Safety Officers, President Singapore	

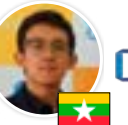
Summary

- Dr. Chris Peace – Legislative evolution requires executive due diligence. Performance based duties means safety must be led by directors and managers using systems thinking and due diligence rather than being treated as a compliance exercise.
- Michaela Murray – Experiential training and change leadership foster lasting safety culture. Repeated practice via experiential learning approaches such as, role play, simulations and on the job mentorship enhances retention far more than reading alone. Health and safety professionals need to design active, participatory training, act as change leaders during technological, demographic and environmental shifts, and integrate sustainability so that safety becomes a natural part of work instead of a tick box exercise.
- Dr. Marilyn Hubner – The OHS Body of Knowledge underpins professional capability and evolves with emerging risks. A defined body of knowledge is a prerequisite for recognising OHS as a profession; the OHS BoK supplies a conceptual framework that promotes shared understanding of the causation and control of work related fatalities, injury and ill health. Because work and technology are changing rapidly, the BoK is continuously updated—such as with new chapters on psychological health—so that professionals, educators and students have a stable yet forward looking resource.
- Dr. Waddah Ghanem Al Hashmi – OHS roles must integrate business acumen and manage digital transformation risks. Advancements like AI and the Internet of Things enables predictive analytics and real time monitoring that can reduce accidents and, through robotics, wearables and virtual reality, help prevent hazardous exposures. However, these technologies also introduce new risks: unpredictable robot behaviour, cyber threats and psychological stress from constant connectivity. To remain relevant, OHS practitioners should cultivate business and governance skills, embrace enterprise risk management and sustainability, and develop progressive leadership frameworks to harness innovation while managing its risks.
- Bernard Lew – Singapore's WSH officers are evolving into strategic advisors amid digital and societal change. WSH officers (OHS Professionals) are shifting beyond compliance policing to become trusted advisors who embed safety into organisational strategy. Digitalization is producing hybrid and remote work arrangements that improve flexibility and mental health but also create new ergonomic and psychosocial risks; at the same time, tools like wearables and environmental sensors provide real time risk detection. WSH Officers therefore need digital literacy, an understanding of remote work ergonomics and mental health factors, and collaborative skills to manage forward looking risks under demographic and climate pressures.
- Rob Day – Unverified generative AI undermines training reliability and demands scrutiny. 'Agent' modes of generative AI such as Operator can be used to complete any online training/assessments, instead of it being completed by the individuals it was assigned to. OSH professionals must be aware of this risk, and establish processes to confirm that the workers actually completing the work do possess the knowledge and understand what was to be obtained/demonstrated by completing the online training/assessment, as opposed to their AI 'agent' having the knowledge and understanding.

18S1



Role of Academia for Safety, Health and Well-being

Moderator	Panelist	Panelist	Panelist	Panelist	Panelist
  Yasutomo Nasu President, Okayama University	  Atsufumi Yokoi Vice President (Global Engagement) UNESCO Chairholder, Professor and Director of Global Engagement Center, Okayama University	  Kazuki Tokumasu Research Associate Professor, Department of General Medicine, Okayama University	  Mikiko Nakamura Director of Student Support Division, Academic Affairs Department, Okayama University	  Miyu Terashima Student, Medical School Faculty of Medicine, Okayama University	  Lin Thu Kha Htaik Student, Global Discovery Program, Okayama University, Myanmar

Summary

This session, titled “Role of Academia for Safety, Health and Well-being,” was held as a continuation of the G7-related initiative: the G7 Kurashiki Labour and Employment Ministers’ Meeting Support Project, themed “Creating Our Ideal Workplace (VA): Digital × Resilience × Human Well-being.” The session focused on the social responsibility of universities and the future of work shaped by the voices of younger generations.

The session began with the introduction of Okayama University’s “Ideal Workplace (VA) Declaration,” which presented a vision for inclusive and diverse working environments. Centered around the concept of “V” — including Value, Veritas (Truth), Virtue, and Virtual (Digital) — the declaration emphasized a future of work that integrates ethical, intellectual, and technological dimensions.

Students, faculty, and staff shared perspectives from their respective roles. Comments included aspirations such as:

“I want to explore ways of working that allow me to contribute to society by doing what I love and what I’m good at.”

“I hope the university becomes a place that supports such challenges.”

A key concept that resonated throughout the session was “IKIGAI”, a uniquely Japanese philosophy that captures the intersection of personal values and social roles. It was discussed as a guiding principle for meaningful work and life purpose. Staff members emphasized the importance of creating an environment where students find joy in their university experience, and reflected on the evolving roles of university personnel and the need for flexible support systems.

Insights from the university’s Diversity Promotion Office highlighted the importance of building a university where diverse individuals can thrive. The university was reaffirmed as a microcosm of society, playing a vital role in modeling inclusive and equitable practices.

The session also celebrated the achievement of Okayama University’s student team “Copain,” which reached the finals of the ILO Youth Congress, an international education event hosted by the International Labour Organization. This accomplishment symbolizes the university’s commitment to empowering youth and fostering global talent to address pressing societal challenges.

Through this session, a deeper understanding emerged of the university’s role not only as a center for education and research, but also as a platform for co-creating future work styles aligned with young people’s sense of purpose and well-being. Looking ahead, Okayama University’s initiatives such as the “National Strategic Special Zone (the Digital Garden City State Initiative)” and its expanding international collaborations are expected to contribute meaningfully to the development of a sustainable and inclusive society.



18S2



Science Tokyo's Vision a Global Innovation Ecosystem

Moderator 'University Castle Town' Science Tokyo - Expanding from the Local to the Global Stage - Aiming for a Global Innovation Ecosystem (1) Global Innovation Ecosystem (2) Developing Ecosystem Builders		Topic2: What is Global Innovation Ecosystem ? Global Innovation Ecosystem - Creating Value through Systemic Innovation Aiming for a Global Innovation Ecosystem (1) Global Innovation Ecosystem (3) Developing Ecosystem Builders	Open Innovation & Ecosystem Building
  Yoichi Oshima Vice President for Industry-Academia-Government Collaboration Director of the Center for Innovation Management, Institute of Science Tokyo, Japan		  Noboru Konno President, Japan Innovation Network (JIN), Japan	  Eiichiro Kimura Professor, Department of Innovation Science, Institute of Science Tokyo, Japan
Open Innovation Eco System - Switzerland Innovation	FINLAND Powered by Happiness	Introduction to Emergence Delft	Sweden's Life Science Innovation Ecosystem and How We Connect it with Japan
  Toshihiro Matsuda Head of the Investment Promotion, Swiss Business Hub, Swiss Embassy in Japan, Japan	  Eiji Atsumi Invest in Finland, Business Finland, Japan	  Babette van den Broek Team Manager, Emergence Delft, the Netherlands	  Magnus Blondell Business Sweden Sweden

Summary

The realization of well-being requires the collaborative engagement of diverse stakeholders, making the construction of a Global Innovation Ecosystem indispensable. While innovation ecosystems have traditionally been recognized as tools for enhancing industrial competitiveness, they are now playing an increasingly vital role in addressing complex societal challenges. Moving forward, these ecosystems should be leveraged as open and practical platforms that support a well-being-centered society.

The Institute of Science Tokyo is actively working in partnership with the Japan Innovation Network (JIN) to foster and implement such a global innovation ecosystem. At this symposium, we introduced our initiatives and engaged in discussions with representatives from embassies and universities that are leading innovation ecosystem efforts worldwide. Together, we explored the future of open innovation ecosystems.

Vice President Yoichi Oshima of the Institute of Science Tokyo presented the "University Castle Town" Science Tokyo concept, envisioning a university-centered community that integrates education, research, and innovation. Following this, Dr. Noboru Konno, President of JIN, delivered a keynote on the Global Innovation Ecosystem, emphasizing its role in shaping inclusive and sustainable futures.

A panel discussion titled "Toward a Global Innovation Ecosystem" followed, where panelists shared their perspectives, discussed the current state of innovation ecosystems, and explored future directions. The dialogue highlighted the importance of cross-sector collaboration, openness, and adaptability in building ecosystems that can respond to global needs.

This session also served to promote the university's efforts to connect with global stakeholders and laid the groundwork for future participation in initiatives such as GISHW at the upcoming Riyadh Expo. Looking ahead, the Institute of Science Tokyo will continue to leverage the neutrality, fairness, and research capabilities of academia to serve as a core driver of innovation ecosystems. Through these efforts, we aim to contribute to the creation of a sustainable, inclusive, and well-being-oriented global society.



18S3



Safety personnel certification and consultation between certified persons beyond the boundaries of their affiliated companies

Moderator	The Purpose and Social Significance of the SA Council	Creating a Safety and Secure Workplace through Human Resource Development: Utilizing the Safety Personnel Qualification System	Realizing Safety Vision through Human Resource Development Utilizing Safety Assessor and Safety Officer Qualifications
  Masahiro Tochio Japan Certification Corporation Japan	  Masao Mukaidono Honorary Chair, GISHW Honorary Chair, the Institute of Global Safety Promotion (IGSAP) Professor Emeritus, Meiji University Chair, Railway Technical Research Institute, Japan	  Kenichiro Hara Deputy Senior Manager, Environment, Health, Safety & Fire Promotion Office, Manufacturing Strategy Division Headquarters, NSK Ltd., Japan	  Ikuo Maeda Global Promotion Manager, Collaborative Safety & Vision Zero Global Promotion Dept., IDEC Corporation, Japan

Summary

SA Council and Safety Activities Across Member Companies

In Japan, there are certified roles related to workplace safety: the Safety Assessor for technical personnel and the Safety Officer for management-level staff. These certifications are part of a national safety qualification system currently utilized by approximately 3,000 companies, with over 40,000 certified individuals. These professionals form the Safety Associates Council (SA Council), a cross-organizational network that promotes collaboration, professional development, and social contribution beyond company and job role boundaries.

This session focused on how certified personnel are utilized within companies and how inter-company collaboration enhances safety initiatives. Professor Dr. Masao Mukaidono from the Institute of Global Safety Promotion (IGSAP) introduced the background of the certification system and the value of the SA Council. Mr. Kenichiro Hara from NSK Ltd. shared a case study demonstrating a reduction in workplace accidents through the active involvement of certified safety personnel. Mr. Ikuo Maeda from IDEC Corporation presented internal efforts to support certification acquisition and shared interviews with certified employees, offering practical insights into implementation.

Following the presentations, a panel discussion was held with Mr. Masahiro Tochio from Japan Certification Corporation joining the conversation. The panel addressed questions from the audience, revealing real-world challenges faced by companies and safety officers, and offering suggestions for overcoming them.

The discussion reaffirmed that shared knowledge and effective communication among all stakeholders are essential for advancing workplace safety. Certification plays a key role in establishing this common understanding. It was also noted that inter-company collaboration can provide valuable solutions to challenges that cannot be resolved internally, and that participation in external safety activities can enhance the internal recognition of safety officers.

Currently, the International Electrotechnical Commission (IEC) is working to establish a global safety certification system, which is expected to support unified safety practices across multinational corporations. As international exchange among certified professionals expands, it will contribute to raising the competency of safety officers and enhancing their societal impact. Continued growth and activity in this area are highly anticipated.



1854



Successful Cases of AI and Technology Applications to Improve Safety for Construction and Engineering Works

GISHW
@EXPO2025Technical
Tours

Party

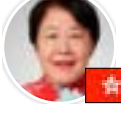
High-level
SummitWorld
AssemblyStandard-
ization ForumMukaidono
Safety AwardFinebubble
Well-beingInt'l
SymposiumILO Youth
Congress

Festival

Exhibition

Baton to
RiyadhOsaka
Declaration

Messages

Moderator	"Beyond Surveillance: AI-Driven Solutions for Proactive Workplace Safety"	Digital Applications in Construction Safety: A Contractor's Perspective	Maximizing Value in Engineering with GenAI	Championing Innovation Technology for Construc- tion Safety
  Ada Fung Chairlady, Construction Industry Safety and Health Steering Committee, Occupa- tional Safety and Health Council Hong Kong Spe- cial Administrative Re- gion, China	  Jeanie Wong Head of Public & Financial Services, Lenovo PCCW Solutions Limited, Hong Kong Special Ad- ministrative Region, China	  Freddy Lee CEO, SOCAM Develop- ment Limited Hong Kong Special Ad- ministrative Region, China	  Terence Lui Founder and CEO, Varadise Limited Hong Kong Special Admin- istrative Region, China	  W. K. Hung Chief Engineer, Civil Engi- neering and Development Department Hong Kong Special Admin- istrative Region, China
Innovation in Safety – Smart Site Safety with Digital Twin	Innovative Robotics Technologies for Enhanc- ing Safety of Drainage Works in Hong Kong	Enhancing Health & Safe- ty through Innovative Technology Applications	Elevating Safety Stand- ards: AI Robotics for Risk Mitigation	Towngas Innovation: All-round Robotics and Technology for Preven- tive Maintenance and Repair
  Eric Lee Assistant Director, Electrical and Mechanical Services Department, Hong Kong Special Ad- ministrative Region, China	  Ben Yip Assistant Director, Drainage Services Depart- ment Hong Kong Special Ad- ministrative Region, China	  Ray Wu Chief Mechanical En- gineer, The Hongkong Electric Co., Ltd. Hong Kong Special Ad- ministrative Region, China	  Antonio Cheung CEO, SquareDog Robotics Limited Hong Kong Special Admin- istrative Region, China	  Patrick Fung General Manager – Group Safety and Environmental Management, The Hong Kong and China Gas Co., Ltd., Hong Kong Special Administrative Region, China

Summary

1. Human collaboration with AI, IoT, Robotics etc. is crucial for success in maximizing potential for enhancing safety, health, and well-being.
2. When we work together in fully applying the latest technology in improving OSH, we can achieve the ultimate goal of zero accident in our construction industry.
3. Advanced technologies and robotics are not meant to replace human labour, but to empower individuals—enabling safer, more skilled, efficient, and smarter ways of working.
4. Open-mindedness in technology, attention to detail in validation, and a practical approach to adoption are the key to further improve OSH in the future.
5. With the collaborative effort of various stakeholders, we pursue excellence by applying human-centered innovation to create a safer, healthier and smarter workplace tomorrow.



18S5

Predictive Digital Solutions: From AI and Big data to virtual engineering

Moderator	Panelist	Panelist	Panelist
 Kelly Nicoll President Institution of Occupational Safety and Health (IOSH), UK	 James Pomeroy Director, Global Health and Safety Leader ARUP, UK	 Cam Stevens CEO Work Design & Safety Transformation Coach, Pocketknife Group, Australia	 Mona Mustafa Director, MSc Human Resource Management (HRM) Program, the University of Birmingham, UAE

Summary

1. Greater awareness is needed of the dual impact of SafetyTech on culture - it isn't just about operational efficiency but also the profound effects it has on site culture, behaviour and relationships. Technology can both enhance and erode trust. Oversight mechanisms (e.g. wearables, real-time monitoring) may create perceptions of surveillance if not properly framed and managed. There's a need to balance digital oversight with autonomy, accountability and team dynamics.
2. There is nuanced understanding of the unintended consequences in digital safety systems and the unintended side effects of implementing predictive and real-time technologies, especially at scale. Over-reliance on technology can dilute human responsibility or frontline decision-making. Mandatory systems may shift blame dynamics or create tensions with subcontractors. A successful implementation requires more than just the tech - it needs cultural alignment and human-centered design.
3. Elevated Dialogue Around Worker Participation and Empowerment should be included in implementation of new systems, with consideration of how SafetyTech systems can be designed with workers, rather than imposed on workers - a shift from surveillance to empowerment. Transparency and consultation are essential for trust, and empowered workers can improve both adoption and safety outcomes.
4. There is a recognition of the value and limits of mandated SafetyTech. Top-down digital mandates can accelerate innovation, standardise safety and promote investment but mandates can also backfire if organisational readiness and culture are not aligned. It's important to balance compliance with adaptability, allowing flexibility at site level.
5. It is vital to reinforce the importance of leadership in managing digital change. Given the scale and complexity of SafetyTech adoption, leadership plays a crucial role in ensuring a successful transition. Leaders must manage not just the systems, but the people affected by them and model transparency, accountability and responsiveness to tech-driven changes. Strategic tech rollouts require cross-functional leadership (safety, tech, HR, operations).



1856



Digitalisation for Prevention – From Vision to Reality

Moderator	The Future of AI and Immersive Learning in Safety	Vision Zero, AI and the Future of Prevention at Work	Changing Human Work by Innovative Digital Ergonomic Tools
 Christian Felten Managing Director, BASI Germany	 Mousa Yassin CEO and founder, Pixaera UK	 Sven Timm Dep. Director of Central Prevention Division, DGUV, Germany	 Urs Schneider Scientific Director for health research, Fraunhofer IPA Germany

Summary

1. Artificial Intelligence (AI) is strongly transforming workplace accident prevention in Germany in a positive way, supporting efficiently the Vision Zero goal of eliminating work-related accidents and diseases. AI-Driven Prevention will be the future for Health, Safety and wellbeing at work. For example, an AI platform analyses data from over 600,000 companies in the construction sector to identify risks and recommend preventive actions—saving lives and reducing costs. Technical inspectors can be supported by a “Generative Inspection Assistant” (GIA). The GIA is a tool which uses company files, pictures and voice input from inspection work to automate legally compliant inspection reports, cutting documentation time from 30 to 5 minutes and freeing inspectors to focus on prevention work within enterprises. Because of globalisation, there is a need for Global Collaboration for AI in OSH: Germany therefore is building a global AI-based prevention network, including an “AI-Store” for sharing solutions and best practices in prevention internationally.
2. Focusing on occupational health by good ergonomic conditions in production is key for human productivity. Modern biomechanical understanding paired with digital ergonomics assessment methods supports work planners and health and safety specialists for a healthier future of manual labour force. Prevention and treatment of musculoskeletal illnesses can be best reached with AI driven exoskeletons and digital modelling of work.
3. AI and immersive learning in Live Interactive Sessions are shaping a brilliant form for safety training and site onboarding. The future of operational instructions lies in a live interactive classroom experience where attendees can participate together in a live hyper-realistic simulation and experience a real-life safety incident.



18G1



The Occupational Safety and Health Needs of Partner Countries from the Perspective of International Cooperation and Future Initiatives

Moderator	Introduction of initiatives in international projects at JISHA	Introduction to International Efforts by the JNIOOSH	Introduction to International Efforts by the UOEH
  Katsutoshi Ohdo Deputy Director, National Institute of Occupational Safety and Health, Japan (JNIOOSH)	  Hiroki Komiyama Director, Technical Support Dept, Japan Industrial Safety & Health Association (JISHA)	  Teruhito Otsuka Director of Center for Occupational Accident Investigation, National Institute of Occupational Safety and Health, Japan (JNIOOSH)	  Tomohiro Ishimaru Deputy Director, International Center, University of Occupational and Environmental Health (UOEH), Japan

Summary

This session introduced the international initiatives of three leading Japanese institutions in the field of occupational safety and health (OSH)—the Japan Industrial Safety and Health Association (JISHA), the National Institute of Occupational Safety and Health, Japan (JNIOOSH), and the University of Occupational and Environmental Health, Japan (UOEH)—and explored future directions for promoting international cooperation.

JISHA, an organization dedicated to improving OSH and preventing workplace accidents, presented its international activities. These included training programs for government officials from Asia commissioned by JICA, the Smile Asia Safety Project, the SAKURA Project for OSH in Asia, safety information exchange meetings for Japanese companies operating overseas, participation in APOSHO (Asia-Pacific Occupational Safety and Health Organization), and plans to host a safety conference for Japanese companies in Thailand.

JNIOOSH, Japan's only research institute specializing in OSH, shared its international efforts such as exchange programs based on memoranda of understanding (MOUs), dispatch of researchers to overseas universities and research institutions, hosting trainees from JICA, Thailand, and South Korea, and participation in international forums including the Sheffield Group Meeting (focused on OSH research institutes in Europe and North America), AOSHRI (Asia OSH Research Institutes), APSS (Asia-Pacific Safety Symposium), I-WISE (International Workshop on Industrial Safety), and its role as a WHO Collaborating Centre for Occupational Health.

UOEH, Japan's only medical university dedicated to training occupational physicians and health professionals, introduced its international initiatives including exchange programs for undergraduate and graduate students, international training programs in occupational health, joint research in Thailand on fall prevention among elderly farmers, hosting the UOEH International Symposium, and its designation as a WHO Collaborating Centre for Occupational Health.

Through these presentations, the session facilitated the sharing of knowledge, experiences, and challenges related to international OSH cooperation. It concluded with a mutual commitment from the three institutions to continue working together to promote global collaboration in occupational safety and health.



18G2



Mental Health and the Law: Why a Society for the Study of Occupational Health Law Was Born

Moderator	Introduction of initiatives in international projects at JISHA Introduction of initiatives in international projects at JISHA	Legal Framework for Occupational Mental Health in Japan	Occupational Health Jurisprudence: Bridging Law and Medicine
  Tetsuya Matsubara Visiting Researcher, Recruit Works Institute, Japan	  Toru Yoshikawa Senior Researcher (Dupty Director), Research Center for Overwork - Related Disorders, National Institute of Occupational Safety and Health, Japan (JNIOSH), Japan	  Takenori Mishiba Founder, Japan Society for Occupational Health Law, Professor of Law, Kindai University, Japan	  Yoichi Inoue Representative Attorney, Aisan Nishio Law Office, Japan

Summary

This session was moderated by Mr. Tetsuya Matsubara (formerly of the Ministry of Health, Labour and Welfare; Recruit Works Institute), with speakers including Dr. Toru Yoshikawa (National Institute of Occupational Safety and Health, Japan), Prof. Takenori Mishiba (Kindai University), and Mr. Yoichi Inoue (representative attorney).

Dr. Yoshikawa analyzed the historical and statistical context of labor in Japan, highlighting how long working hours and interpersonal conflicts have contributed to mental health disorders. He categorized key risk factors for mental illness as “long working hours,” “harassment,” “excessive responsibility,” and “trauma from disasters,” and discussed the realities of workers’ compensation cases and challenges in the stress check system.

Prof. Mishiba traced the evolution of mental health measures through legal precedents and institutional reforms. He emphasized the significance of the 2000 Supreme Court ruling in the Dentsu case, which clarified employer liability for fatigue and stress. He explained how job design and organizational structure have since become legal foundations for responsibility, and noted both the progress and the risk of superficial compliance with mandatory stress checks. He proposed “Occupational Health Law” as a new academic discipline that systematizes workplace dialogue and legal intervention, viewing stress factors as dynamic elements.

Mr. Inoue, speaking from a legal perspective, stressed that Occupational Health Law is not only about resolving disputes but also about prevention. He addressed issues such as mismatches in ability and values, and organizational culture-induced burnout. He argued that law can support adjustment and consensus-building, and outlined key methodologies including learning from failure, supporting self-determination, and emphasizing procedural rationality.

During the discussion, topics included the link between overwork-related deaths and mental health, and the use of “procedural rationality” in return-to-work assessments. The importance of a multifaceted process that considers medical judgment, individual characteristics, and workplace compatibility was affirmed.

The session concluded with an introduction to the Society for Occupational Health Law’s international activities. It was reported that the society’s English-language journal receives contributions from over 20 countries and attracts approximately 20,000 annual accesses. Rather than imposing a single standard, the society promotes a mutual reference model, and this symposium is expected to contribute to its further development.



GISHW @EXPO2025
Technical Tours
Party
High-level Summit
World Assembly
Standard-ization Forum
Mukai dono Safety Award
Finetune Well-being
Int'l Symposium
ILO Youth Congress
Festival
Exhibition
Baton to Riyadh
Osaka Declaration
Messages

18G4



Impact of Climate Change on the Safety and Health of Workers

Moderator	Panelist	Panelist	Panelist	Panelist
 	 	 	 	 
Ockert Dupper Global Programme Manager, Vision Zero Fund, ILO South Africa	Joaquim Pintado Nunes Chief, OSHE Branch, ILO Portugal	Silas Sng Commissioner for Workplace Safety and Health, Ministry of Manpower Singapore	Pierre Vincensini Special Adviser, International Organization of Employers (IOE) France	Linnea Wikstrom Global Director for Construction, Health and Safety, Global Union Federation Building and Wood Workers' International (BWI) Sweden

Summary

1. Climate change heightens occupational safety and health (OSH) risks.

Rising temperatures and extreme weather events increase the risk of heat-related illnesses, injuries, and fatalities, especially for outdoor and agricultural workers. These impacts not only threaten worker health but also reduce working hours and productivity, with significant economic and social consequences for workers, their families, and communities.

2. A just transition and greener workplaces are essential for protecting workers.

Strong OSH policies, alongside environmentally and socially sustainable practices, can safeguard workers, promote resilience, and support job creation. Greening enterprises through energy efficiency, pollution reduction, and sustainable resource use enhances innovation and delivers long-term benefits for employment, social justice, and poverty eradication.

3. A whole-of-government approach is essential to address the impact of climate change and heat stress on workers. For example, Singapore has established an interagency committee to develop targeted response plans for both workers and employers across all sectors, as well as for the wider society. Platform workers remain a particularly hard-to-reach group, as they lack a traditional employer–employee relationship, often work irregular hours, and face strong pressure to deliver. Promoting health self-care is therefore critical, alongside engaging platform operators to send reminders encouraging breaks during periods of extreme heat.

4. The International Organisation of Employers (IOE) works to ensure that companies -regardless of their size, region, or sector - have their voices heard in shaping ILO standards and guidelines on climate change, heat stress, and occupational safety and health (OSH). The IOE also supports enterprises in implementing national programmes and systems in these areas.

5. Building and Wood Workers' International (BWI) advocates for stronger incentive structures and preventive measures, including through collective bargaining agreements, to protect workers from extreme heat. These agreements should ensure that workers can exercise their right to stop work when conditions become unsafe due to high temperatures. Broader working and living conditions, such as workers' accommodation, must also be addressed, as overheated premises delay essential recovery. Heat-related illnesses, such as chronic kidney disease, often have long latency periods. Given the frequent turnover of employers and worksites in the construction sector, this creates serious challenges for both disease attribution and compensation.



18G5



VISION ZERO Approach for Global Supply Chains

Moderator VISION ZERO in Trade, Goods Logistics, and Port Handling along Global Supply Chains (Part 1)	VISION ZERO in Trade, Goods Logistics, and Port Handling along Global Supply Chains (Part 2)	Practical Occupational Safety in Retail: Sustainable - Innovative – Practical
  Dr. Klaus Schaefer Head of Prevention, BGHW; Technical Secretary ISSA Section Trade, Germany	  Dr. Udo Schöpf Managing Director, BGHW; Senior Vice President ISSA Section Trade, Germany	  Roland Kraemer Chairman of the Board - Employer Representative, BGHW Germany
Connecting the Dots – OSHW in Transportation along Global Supply Chains	WSH Advocate	Safety and Continuous Improvement in the Global Supply Chain
  Dr. Nadja Schilling Head of Research & Projects, BG Verkehr; Secretary General, ISSA Section Transportation Germany	  Abu Bakar Bin Mohd Nor Chairman WSH-Council; Group Chairman, M Kapital Holdings Pte Ltd, Singapore	  Carina Hjoerngaard Hjorth Global Head of Health, Safety, Environment & S&R Transformation, APMM, Denmark

Summary

1. ISSA Sections represent VISION ZERO worldwide and support it with specific guidelines.
2. New challenges require new solutions. Therefore, the ISSA Section Trade will invest in AI applications.
3. The principles of VISION ZERO can be used in decentralised companies to improve health and safety.
4. Sustainability in practice is a fundamental pillar for safety, health and wellbeing



18G6



Advancing Social Sustainability through Occupational Hygiene

Moderator	The Evolving Role of the Occupational Hygienist in Heavy Industry	The Science Behind Our Practice	Global burden of noise-induced hearing loss	Occupational Hygiene Priorities Globally
  Matthew Olota IOHA President-Elect Nigeria	  Guillaume Lachapelle Chief Oral Examiner, CRBOH Canada	  Stephanie Lynch President, ISRP & Chair, ACGIH USA	  Maharshi Mehta Past President (2022-2023), IOHA India	  Amir Wolfe Vice Chair Advisory & Standards, CAOHC Israel

Summary

This Symposium brought together international experts to highlight how occupational hygiene drives safer, fairer, and more equitable workplaces. The session explored how science, ethics, and professional collaboration contribute to sustainable development and worker well-being worldwide.

Dr. Stephanie Lynch, PhD, CIH, CSP, COHC, and Chair of the ACGIH Board, opened with a presentation on The Science Behind Our Practice. She underscored how occupational exposure standards are grounded in toxicological evidence, rigorous peer review, and transparent decision-making. Her insights reaffirmed the profession's ethical duty to ensure that science remains at the core of worker protection and social sustainability.

Guillaume Lachapelle, ROH, CIH, Chief Examiner of the Canadian Registration Board of Occupational Hygienists, discussed The Evolving Role of the Occupational Hygienist in Heavy Industry. He emphasized the growing importance of data analytics, digital technologies, and professional ethics in addressing emerging workplace challenges. He also outlined Canada's robust certification framework, promoting competence and credibility.

Dr. Amir H. Wolfe, MD, MPH, MBA, Vice Chair of CAOHC, presented New Horizons in Hearing Safety, calling attention to the global burden of noise-induced hearing loss. He advocated for the integration of Hearing Protection Fit Testing (HPFT) into hearing conservation programs, aligning with new NIOSH recommendations.

Concluding the symposium, Maharshi Mehta, CIH, CSP, FAIHA, Past President of IOHA, explored Occupational Hygiene Priorities Globally, stressing the need for capacity building, ethical data practices, and international collaboration—particularly in emerging economies where professional resources remain limited.

Across all sessions, a shared vision emerged: advancing social sustainability means advancing occupational hygiene. Through science-based standards, professional competence, and global partnerships, the profession continues to shape a healthier, fairer, and more sustainable world of work.



18H1



Human-Machine Collaboration Technologies for Well-being

Moderator	Moderator	Making workplaces safer by using AI: assistance system on a sliding table saw	Robot Industrial Policy at METI
  Tamio Tanikawa Director, National Institute of Advanced Industrial Science and Technology (AIST)	  Rolf Ellegast Institute Director, Institute for Occupational Safety and Health of the German Social Accident Insurance (IFA)	  Thomas Bömer Deputy Head of Department Institute for Occupational Safety and Health of the German Social Accident Insurance (IFA)	  Tomoaki Ishizone Director, Robotics Policy Office, Manufacturing Industries Bureau, Ministry of Economy, Trade and Industry (METI)
Smart Prevention: Real-World Data and AI solutions for (near) Fall Detection	Challenges for Medical Robotics into Healthcare	Efforts in Human-Collaborative Robotics at Kawasaki Heavy Industries	
  Moritz Schneider Team Leader "Data Science and Artificial Intelligence", Institute for Occupational Safety and Health of the German Social Accident Insurance (IFA)	  Tomokazu Yoshida Member of Managing Board and Senior Executive Officer CTO, Sysmex Corporation	  Hiroaki Kagaya Executive General Manager, Presidential Project Management Division, Kawasaki Heavy Industries, Ltd.	

Summary

Japan is facing a serious decline in its working-age population due to low birth rates and an aging society, resulting in a growing labor shortage. While automation technologies have traditionally been used to reduce labor needs in factory settings, they are difficult to apply in areas such as small-batch, multi-variety production and non-factory environments. This has led to increasing importance of human-machine collaboration technologies, which combine human flexibility with the high productivity of robots. Furthermore, creating a well-being-oriented environment where people can actively and comfortably utilize robots is essential for maintaining sustainable productivity.

This session featured reports from various perspectives on the latest technologies and directions in human-machine collaboration. Thomas Bomer from the IFA presented a case study where AI was used to enhance safety in high-risk machinery, demonstrating how AI can contribute to accident prevention.

Tomoaki Ishizone from the Ministry of Economy, Trade and Industry introduced successful examples of robot adoption in small and medium-sized enterprises, explaining user-friendly implementation frameworks and supportive policies.

Moritz Schneider from the IFA showcased a technology that predicts risks such as tripping and slipping during walking by analyzing full-body motion data with AI, using minimal sensors. This approach offers potential guidelines for designing safer environments.

From the corporate sector, Tomokazu Yoshida of Sysmex Corporation shared a vision for the future of medical robotics, focusing on remote-controlled surgical robots.

Hiroaki Kagaya of Kawasaki Heavy Industries presented applications of industrial robot technologies in non-factory settings, including medical environments, as examples of remote-controlled human-machine collaboration systems.

These presentations highlighted the growing demand for solutions driven by labor shortages and the promising potential of integrating AI and robotics into society. At the same time, challenges such as delayed institutional frameworks and societal acceptance mechanisms were identified. The session also emphasized the need to shift from traditional hardware-centric business models to new integrated models that combine products, data, and services—an essential step toward realizing a well-being-oriented society powered by AI and robotics.



18H2



Achieving Collaborative Safety through Holistic Approach: Best Practices in Manufacturing

Moderator	Moderator	Building and Managing Psychosocially Resilient Safe Workplaces - 'Your 3 C's' Context. Culture. Constraints	New ways to communicate about security issues worldwide	Why Market Surveillance is key for Citizens, Industry and Governments ?
 Toshiyuki Kajiya Director, Institute of Global Safety Promotion (IGSAP), Japan	 Rolf Ellegast Institute Director, Institute for Occupational Safety and Health of the German Social Accident Insurance (IFA), Germany	 Stuart Hughes Immediate Past President of the Institution of Occupational Safety and Health (IOSH), UK	 Jonas Stein Scientist, Institute for Occupational Safety and Health of the German Social Accident Insurance (IFA), Germany	 Pierre SELVA VP Conformity Assessment & Market Surveillance, Strategy & Sustainability, Schneider Electric, France
Defeating of Safeguards on Machinery	Designing Safe, Smart and Efficient Factories utilizing Emerging Technologies	Safety 2.0 Conformity Assessment Registration System and Safety Personnel Competency Certification System	The Conformity Assessment Scheme of AI Management System (AIMS)	
 Stefan Otto Research Officer, Institute for Occupational Safety and Health of the German Social Accident Insurance (IFA), Germany	 Timothy T. Duffy Senior Manager, Conformity Assessment Global Product Standards & Regulations, Rockwell Automation, USA	 Masahiko Ariyama Safety Assessor, Japan Certification Corporation, Japan	 Toru Yamauchi Managing Director, Japan Institute for Promotion of Digital Economy and Community (JIPDEC), Japan	

Summary

In Japan's current labor environment—marked by a declining workforce due to demographic shifts and the advancement of workstyle reforms—enhancing employee motivation and ensuring safety, health, and well-being is becoming increasingly critical, especially for manufacturing companies.

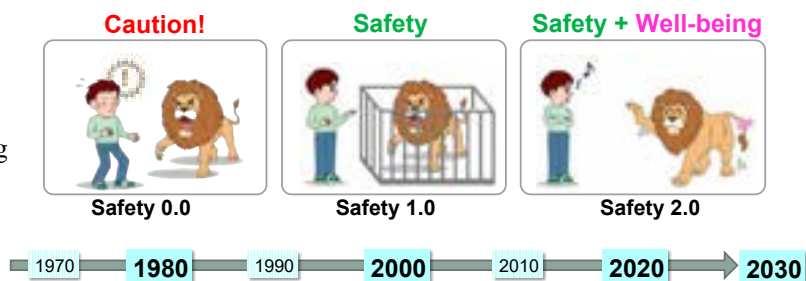
One promising tool for achieving this is collaborative safety, which uses ICT to integrate data from people, machines, and environmental risks, guiding individuals toward safer behaviors and fostering *anshin* (a sense of security). To implement collaborative safety effectively and sustainably in the workplace, a holistic approach is essential—one that goes beyond technical solutions to include personnel suitability, organizational structure, organizational management, and rule-making.

This session brought together experts from the automotive and electronics sectors to present diverse perspectives.

Mr. T. Duffy from Rockwell Automation (US) discussed future technologies and their relationship with factories and workers. Mr. M. Ariyama from JC (Japan) introduced the concept of Safety 2.0 private certification and personnel competency certification system. Mr. J. Stein from IFA (Germany) presented new communication methods related to security. Mr. P. Selva from Schneider (France) examined the impact of market surveillance activities on companies and individuals. Mr. S. Otto from IFA (Germany) proposed comprehensive methods to prevent the disabling of machine safety features. Mr. T. Yamauchi from JIPDEC (Japan) discussed conformity assessment for AI management systems.

These presentations clearly demonstrated that a holistic approach to collaborative safety involves not only technological development but also the creation of systems, organizations, and management frameworks that ensure proper implementation and sustained functionality in the field. Key elements include the competence of personnel operating these systems and the mechanisms that support their use.

It was emphasized that accurate understanding and support from corporate leadership are essential for the successful implementation and operation of collaborative safety. As such, collaborative safety should be recognized and utilized as a vital resource for realizing employee safety, health, and well-being in the workplace.



18H3



Human-Machine Collaboration for a Society Preparing for Population Decline

Moderator	NVIDIA Halos - AI Safety from Autonomous Vehicles to Broader Physical AI	Clinical AI and Trust: Bridging Algorithmic Transparency and Human Factors	Sysmex's Approach to realizing a Healthcare Journey	Development of BHQ estimation algorithm using facial expression analysis technology and efforts to make local residents want to know their own brain health status
  Yoshihiko Nakabo Team Leader, Industrial CPS Research Center, National Institute of Advanced Industrial Science and Technology (AIST) Japan	  Riccardo Mariani VP Industry Safety, NVIDIA, Italy	  Nicolas Frey Research Associate, Working Group Data Analytics, Institute of Medical Informatics, Charité, Berlin, Germany	  Kenji Tsujimoto Executive Officer and Executive Vice President, Sysmex Corporation, Japan	  Yoshihiko Namba Head, New Business Development Office, Product Analysis Center, Panasonic Holdings Corporation, Japan
An Introduction of "Common Ground" - Where Physical and Virtual Spaces Interact	Ensuring Service Robot Safety for a Harmonious Human-Robot Coexistence	Current Situation and Future Possibilities for International Standardization of Commonground	Efforts to ensure the Safety of Social Robots	
  Keisuke Toyoda Project Professor, Inter-space Research Center, the Institute of Industrial Science, The University of Tokyo, Japan	  Tamao Okamoto Vice President, Edge AI Division SHIN-JIGEN Inc.	  Takayuki Nagashima Technology Laboratory Partner Technology & Digital Consulting PwC Consulting LLC, Japan	  Hitoshi Hasunuma Senior Staff Officer, Social Robot Business Strategy Department, Presidential Project Management Division, Kawasaki Heavy Industries, Ltd.	

Summary

In the future, Japan is expected to experience a prolonged decline in its working population and a super-aging society. These trends will have a significant impact not only on production but also on services and society as a whole. Even under such circumstances, in order to maintain a comfortable and safe society, it is considered necessary to adopt a human-centered approach, promote automation as much as possible based on the premise of everyone's well-being, and build a new social system where humans and machines collaborate.

In this session, under the vision of "Human-Machine Collaboration for a Society Preparing for Population Decline," discussions were held on the introduction of service robots and well-being technologies into society, focusing on safety, efficiency, and feasibility, while considering current technologies and future developments.

First, in the keynote speech, Riccardo Mariani from NVIDIA introduced a platform for safety assurance based on AI-driven physical world simulation and data from sensor networks. Next, Nicolas Frey from Charité presented examples from Germany, and Kenji Tsujimoto from Sysmex Corporation introduced examples from Japan, both highlighting the use of data and AI in healthcare. Additionally, Yoshihiko Namba from Panasonic Holdings Corporation introduced an application that estimates brain health through facial image analysis and efforts to promote its adoption in the health sector.

Meanwhile, as a bridge between human living spaces and digital spaces—essential for AI and data utilization—Professor Keisuke Toyoda from the University of Tokyo introduced the concept of Common Ground, followed by Takayuki Nagashima from PwC Consulting LLC, who discussed efforts toward its international standardization.

Finally, regarding service robots that assist people in human-centered living spaces and digital infrastructures, Tamao Okamoto from SHIN-JIGEN Inc. introduced standardization efforts for ensuring safety, and Hitoshi Hasunuma presented Kawasaki Heavy Industries' initiatives for ensuring the safety and social implementation of social robots.



18F1



The forefront of safety management at Expo construction sites:
Advanced examples and field practice of VR, AI and construction equipment
utilization

Moderator	VR for Safety Training and Enhanced Well-being	Safety belt non-user detection system	Safety of Aerial Work Platforms
  Tomohito Mori Senior Engineer, Safety Management Department, Daiwa House Industry Co., Ltd. Japan	  Koichi Tsujio AKTIO Corporation, Japan	  Tomohiko Kajihara Nishio Rent All Co., Ltd., Japan	  Takashige Maruyama Nikken Corporation, Japan
Safety and Health Management at Daiwa Leasing's Osaka and Kansai Expos	Safety Management in Overseas Construction (Perfect Execution of Basics)	Caution!  Safety 0.0 Safety  Safety 1.0 Safety + Well-being  Safety 2.0 1970 — 1980 — 1990 — 2000 — 2010 — 2020 — 2030	
  Isao Asano Daiwa Lease Co., Ltd.	  Masahito Onodera International Business Division Safety Office, Fujita Corporation		

Summary

Session Overview: Frontline Safety Management in Expo Construction Sites

This session focused on the evolving approaches and challenges of safety management in the context of the 2025 Osaka-Kansai Expo, a national-scale construction project. The discussion centered on how traditional safety management methods are no longer sufficient for large-scale, multi-phase construction sites involving multiple contractors and rental companies. It was confirmed that ensuring safety now requires a dual approach: technological innovation and organizational management.

A key theme was the importance of “design-phase safety planning.” Presenters introduced methods using VR-based spatial simulations to visualize potential hazards before construction begins, allowing for optimized planning and risk mitigation.

Another major focus was the role of real-time monitoring and predictive management. AI and sensor technologies are being used to continuously analyze the movements of workers and heavy machinery, enabling early detection of collision risks and warning signs. Additionally, efforts are underway to embed safety support functions directly into construction equipment—such as automatic stop and proximity prevention features—creating a framework where humans, machines, and the environment work together to ensure safety.

The session reinforced the shared understanding that safety is a comprehensive force of technology, people, operations, and culture. Cutting-edge technology alone cannot prevent accidents; it must be integrated with work procedures, training, and on-site culture to be truly effective.

This is especially critical in the Expo construction environment, where multiple companies, diverse personnel, and various nationalities coexist. The concept of “collaborative safety,” which emphasizes shared rules and robust information-sharing systems, was identified as a foundational element of next-generation safety management.

Looking ahead, the insights gained from this session are expected to significantly contribute to GISHW’s ongoing activities. By sharing field data and operational knowledge, and advancing the international standardization of training programs and evaluation metrics, a common foundation for safety management can be established. The Expo construction site serves as a proving ground for these innovations, and the collaborative safety technologies and management models developed here are anticipated to have a broad impact on future construction projects both in Japan and abroad.



18F2



Improving Productivity and Well-being in the Construction Industry

Moderator The Current Situation of the Construction Industry and a Comparison of Safety Performance with Leading Safety Nations: Productivity Improvement and Well-being	Examples of Productivity Improvement and Well-Being in the Civil Engineering Sector	Examples of Improving Productivity and Realizing Well-being in the Construction Sector	Overview of A4CSEL® and track record of application to the construction sites
  Takashi Kawata Director, IGSAP, Japan	  Hiroyuki Hirano General Manager, Shimizu Corporation, Japan	  Masahiro Indo Research Fellow, NOVARE, Shimizu Corporation, Japan	  Youichi Izushi Automated Construction Promotion Office, Mechatronics Solution Department, Kajima Corporation Japan
Introducing Wellbeing Awareness into Construction DX Workplaces	Introducing a Student Workshop on Autonomous Cooperative Construction Robots	Improving Productivity and Well-being in the Construction Industry	Improve productivity and well-being in the construction sector
  Takanori Shimizu Chief, Development Group, West Japan Equipment Center Takenaka Corporation	  Ryoko Arashida Academic Fellow, Endowed Chair for i-Construction System Studies, The University of Tokyo, Japan	  Bernd Merz BG BAU, Germany	  Marie DIALLO Head of Prevention Department, Caisse de Sécurité Sociale, Senegal

Summary

In today's labor environment—shaped by a declining workforce due to demographic shifts and the growing momentum of workstyle reforms—ensuring employee motivation, safety, health, and well-being has become increasingly vital, especially for manufacturing and construction companies. From the perspective of the Sustainable Development Goals (SDGs), well-being is now recognized as a key element of corporate management.

This practice session in the construction sector featured presentations from domestic and international companies, research institutions, and universities, showcasing real-world examples of how productivity and safety can be simultaneously achieved.

From Japan:

Mr. Hiroyuki Hirano (Shimizu Corporation) presented a case study on tunnel construction.

Mr. Masahiro Indo shared an example from the architectural sector.

Mr. Youichi Izushi (Kajima Corporation) introduced automation technologies applied to dam construction sites.

Mr. Takanori Shimizu (Takenaka Corporation) discussed the implementation of DX workplace solutions.

Prof. Ryoko Arashida (University of Tokyo) presented a student training program using autonomous collaborative robots.

From overseas:

Mr. Bernd Merz shared initiatives from Germany focused on improving productivity and well-being in the construction industry.

Ms. Marie Diallo presented efforts in Senegal to enhance productivity and well-being in the construction sector, emphasizing contributions to SDGs.

Japanese presentations highlighted the implementation of automation, remote operations, robotics, AI, and collaborative safety technologies. Radar charts were used to illustrate how these technologies improved productivity and transformed worker awareness on-site. The German presentation compared manufacturing and construction industries, identifying key areas for improvement in construction. The Senegalese presentation emphasized that productivity and well-being are not contradictory, referencing proposals made at African international forums on health, safety, and well-being.

This session at the Osaka Expo underscored the importance of cross-sector and cross-border collaboration among industry, government, and academia. It reinforced the belief that stakeholders must work together—beyond institutional and regional boundaries—to advance productivity and well-being, and to shape the future of the construction industry.

18F3

Evolving Autonomous Technologies and Collaborative Safety in Japanese Construction Sites

Moderator The Current Situation of the Construction Industry and a Comparison of Safety Performance with Leading Safety Nations: Productivity Improvement and Well-being	MLIT's Approach to the Automation of Construction Processes	Establishing Collaborative Domains to Accelerate R&D of Automated Earthwork Construction	The Track Record of Remote-Controlled Construction
  Shinya Sugiura GM, Obayashi Innovation Div., Obayashi Corporation, Japan	  Kazuyuki Kikuta Innovation Group, Office of the Counsellor (Innovation), Minister's Secretariat, Ministry of Land, Infrastructure, Transport and Tourism (MLIT), Japan	  Keiji Nagatani Professor, University of Tsukuba, Japan	  Masanori Ishii Executive Officer, Nishimatsu Construction Co., Ltd, Japan
Advancement and Evolution of Automated Construction System(A4CSEL®)- Improving Productivity and Safety at Construction Sites	Achieving Productivity and Safety in Autonomous Operation of Construction Machinery	Panel Discussion on Safety at Automated Construction Sites	
  Satoru Miura Kajima Corporation	  Manabu Takeishi Frontier Research Department, Technical Research Institute, Hazama Ando Corporation	  Manabu Edamura The Institute for Global Safety Promotion, Hitachi Construction Machinery, co. Ltd.	

Summary

In Japan, against the backdrop of a declining workforce due to low birth rates and an aging population, the concept of “labor-saving”—a fundamental principle for improving productivity in industry—has become increasingly emphasized. In the construction sector, this trend began with the i-Construction policy in 2016, followed by i-Construction 2 in 2024, which introduced more advanced measures for labor-saving through digital utilization and process transformation.

Based on this context, Japanese construction companies have been working in collaboration with industry, government, and academia to advance automation in construction sites as a key initiative for labor-saving.

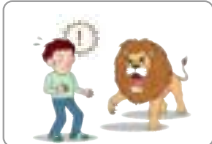
During this session, speakers shared the background behind their companies’ technology development efforts and the challenges they faced in implementing these technologies. A common theme across presentations was the difficulty of addressing safety.

Introducing new technologies into construction processes requires strict compliance with existing occupational safety standards. However, while the basic principles of the Occupational Safety and Health Act are understood, technology often lags behind the legal framework, creating gaps in implementation.

Alongside the presentations, a parallel discussion was held on how occupational safety should be approached in the context of advanced technologies and how safety should be conceptualized moving forward. Although no definitive conclusions were reached, participants agreed that discussions on “collaborative safety”—as a concept for integrating safety into technology-driven processes—must continue.

Looking ahead, this discussion should not be limited to Japan but expanded globally. Defining and advancing the concept of collaborative safety in construction will be a key agenda for organizations such as GISHW and IGSAP. Continued dialogue on this topic is essential.

Caution!



Safety 0.0

Safety



Safety 1.0

Safety + Well-being



Safety 2.0

1970

1980

1990

2000

2010

2020

2030



19EXS1



Sustainable financing mechanisms and investment in occupational safety and health

GISHW
@EXPO2025Technical
Tours

Party

High-level
SummitWorld
AssemblyStandard-
ization ForumMukaidono
Safety AwardFinejobble
Well-beingInt'l
SymposiumILO Youth
Congress

Festival

Exhibition

Baton to
RiyadhOsaka
Declaration

Messages

Moderator	Moderator	OSH Professionals' Role in Driving Sustainable Investment and Influencing Global Financing Policy	Mechanisms for financing OSH prevention	Health Safety & Security in ADB Supported projects
  Marijana Zivkovic Mtegha Strategic Engagement Manager, Institution of Occupational Safety and Health (IOSH), UK	  Tomoka Omoto Social Finance Branch, International Labour Organisation (ILO), Japan	  Vanessa Harwood-Whitcher Chief Executive, Institution of Occupational Safety and Health (IOSH), UK	  Joaquim Pintado Nunes, Chief of the Occupational Safety and Health and Working Environment Branch at the International Labour Organisation (ILO), Portugal	  Felix Nii Tettey Oku Principal Safeguards Specialist, Asian Development Bank (ADB) Ghana
Sustainable financing mechanisms and investment in occupational safety and health	Institutional Investors' perspective	Saudi Arabia's approach under Vision 2030	Trade Unions' Role in Financing Decisions for Decent and Safe Work: Worker-Led OSH in High-Risk and Infrastructure Projects	(Video Presentation) Financing Women Entrepreneurs in Africa's Informal Economy
  Andresa Hernandez Vice-President of Safety, Siemens Brazil	  Tatsuro Yuzawa Head of Japan at United Nations Principles for Responsible Investment (UN PRI) Japan	  Eng. Rayan F. Alzoreki , Deputy Secretary General at the National Council for Occupational Safety and Health (NCOSH) Kingdom of Saudi Arabia	  Linnea Wikström Global Director of Construction and Health & Safety at Building and Woodworkers International Sweden	  Nana Wanjau Vice-President, Commonwealth Business-Women Africa Kenya

Summary

1. Financing OSH is a strategic investment, not a cost

Across the panel, speakers emphasised that OSH is central to sustainable and resilient businesses, supply chains, economies, and societies. Vanessa Harwood-Whitcher (IOSH) reinforced that good OSH is the backbone of social sustainability and a multiplier for business value. Investment in OSH is not simply compliance. It safeguards people, drives business performance, prevents harm, and underpins achievement of the SDGs. Data from the ILO, ADB and Siemens showed prevention-first strategies can yield \$4–6 in returns for every \$1 invested.

2. Current financing systems are fragmented and underdeveloped

The ILO highlighted gaps in financing, where systems rely heavily on public budgets and lack resilience, while market-based mechanisms remain underused. Vanessa noted that OSH professionals must not be bystanders, but actively engage finance and governance processes, making the case for protected budgets and embedding OSH in due diligence, procurement, and investor dialogue. Without such proactive integration, OSH risks being underfunded and overlooked.

3. Corporates and development finance institutions must step up

ADB's safeguards (ESS4) and Siemens' business practices show how OSH can be systematically integrated into project finance and corporate ESG governance. Vanessa expanded this, stressing the profession's role: OSH practitioners are not just advocates but strategic partners who can mobilise diverse finance sources, influence leadership commitment, and demonstrate how strong OSH cultures reduce liabilities, strengthen resilience, and attract investors.

4. Investors and professionals are catalysts for integration

UN PRI underscored that OSH is increasingly present in investor dialogues on human rights and social performance, but reporting remains inconsistent. Vanessa emphasised that transparency and disclosure are critical, calling for OSH indicators to sit alongside financial KPIs in sustainability reporting. Common metrics and disclosure standards are essential to elevate OSH within ESG scoring and sustainable investment taxonomies.

5. Inclusivity and worker voice are essential to sustainable OSH financing

BWI and CBWA reminded the audience that SMEs, women entrepreneurs, and informal sector workers often lack visibility in financing frameworks. Vanessa echoed this by stressing that no worker should be left behind and called for system-wide OSH capacity building. Collaboration across sectors, professions, governments, and civil society is critical to ensuring equitable, gender-responsive financing mechanisms that reach every workplace and community.

19EXS2-1



International Workshop on Global Collaboration

Moderator	Definitions and International Obligations	The Evolving Role of Labor Inspectorates: Addressing Workplace Violence, Harassment, and Mental Health Risks
 Marie Boland Chief Executive Officer Safe Work Australia Australia	 Joaquim Pintado Nunes Chief of the Occupational Safety and Health and Working Environment Branch at the International Labour Organisation (ILO), Portugal	 Ho Siong Hin President of IALI Singapore

Summary

The Chief Executive Officer (CEO) of Safe Work Australia shared the important work to address psychological hazards and harassment, the continuing emergence of new digital technologies, and the ban on engineered stone benchtops in Australia.

Psychological health and incident notification

- Participants agreed on the importance of addressing psychological health in the workplace, particularly psychological injury prevention.
- The CEO discussed Safe Work Australia’s amendment of the model WHS Regulations in 2022 to include psychosocial hazards in the workplace, including sexual harassment, and Codes to support this work. The CEO noted that the law changes require employers to manage the risks to workers’ mental health in the same way as risks to their physical health.
- The CEO shared the upcoming amendments to the model WHS laws to add new requirements for employers to notify their regulators of incidents when a worker has been exposed to psychological harm. These changes are designed to support a system that puts psychosocial hazards on the same footing as physical hazards.

Digital technologies (Artificial intelligence and platform workers)

- The CEO noted that while new technology can bring benefits, including safer workplaces, we need to be alert to ensure workers are not exposed to new safety hazards. The CEO outlined current discussions that are occurring in Australia with unions, business and regulator representatives about whether there should be new duties in the work health and safety laws to cover the unique hazards introduced by ‘crowd platforms’ that match workers to work via an online platform.

Silica and engineered stone

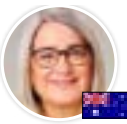
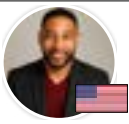
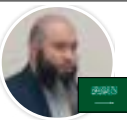
- The CEO shared Australia’s experience implementing a world-first ban on the use of engineered stone benchtops, panels and slabs under Australian laws, which commenced on 1 July 2024.



19EXS2-2



International Collaboration Forum - Addressing Challenges in Youth Protection, Mental Health, Harassment and Violence in the Workplace

The National Safety Council's Advocacy for Comprehensive Worker Safety and Well-being   Lorraine Martin Chief Executive Officer, National Safety Council, United States	Australia's Evolution in Workplace Safety: From Physical Hazards to Psychosocial Risk Management   Marie Boland Chief Executive Officer Safe Work Australia Australia	Mental Health and Harassment: Conditions and Policies in Japan   Shinichi Akiyama Senior Assistant Minister for International Affairs, Ministry of Health, Labour and Welfare, Japan	Mental health, Violence and Harassment in the workplace   Milly Ruiters Chief Inspector, Ministry of Employment and Labour, South Africa	Workplace Violence Prevention: Policies and Practices of Taiwan   Tzu-lien Tzou Chief Secretary Ministry of Labor, Taiwan (R.O.C.)
ILO Youth Congress Call to Action	Food Delivery Rider Support Platform			
  Yuka Ujita Senior OSH Specialist, ILO DWT-Bangkok Japan	  "CAT to the Moon Team" Nahataichanok Pathomrojsakul Department of Occupational Health and Safety, Faculty of Public Health, Mahidol University, Thailand			
Protecting Youth in the Workplace	Protecting Youth in the Workplace: Saudi Arabia's Best Practices and Risk-Based Approach   Will Flowers General Manager Environmental, Health and Safety Office Universal Studios Japan USA	Global Standards and Corporate Responsibility: Germany's Commitment to Youth Protection and Safe Work Environments   Wahid Hamzi Occupational Health and Safety Consultant National Council for Occupational Safety and Health (NCOSH), Kingdom of Saudi Arabia	  Carsten Stender Director-General BMAS, Germany	  "CAT to the Moon Team" Sunita Songjaroen Department of Occupational Health and Safety, Faculty of Public Health, Mahidol University, Thailand

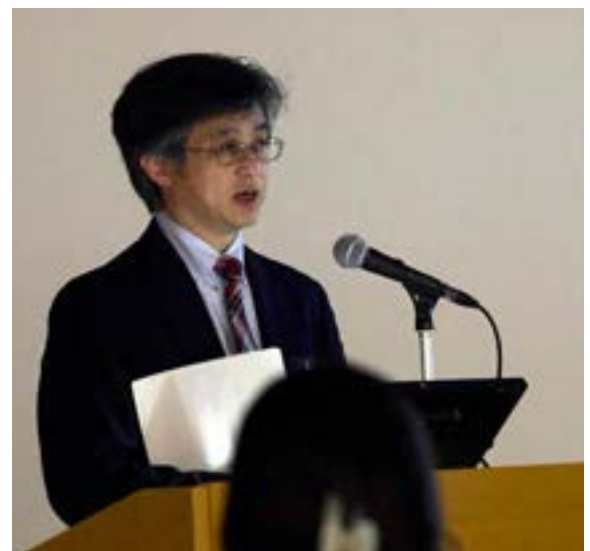
Summary

The Chief Executive Officer (CEO) of Safe Work Australia discussed the importance of increasing awareness and understanding of psychological health in the workplace and outlined Australia's psychological injury prevention work. Participants discussed the increased prevalence of psychosocial hazards in the workplace and how they can be better managed.

The CEO outlined key Australian developments including:

- amendments to the model WHS Regulations in 2022 to address psychosocial hazards in the workplace, including sexual harassment, and model Code of Practice: Managing psychosocial hazards at work, and publication in 2023 of a model Code Sexual and gender-based harassment, and
- Work to amend the model WHS laws to expand requirements to notify WHS regulators about incidents that expose workers to psychological harm.

The CEO noted the increase in workers' compensation claims for psychological injuries in Australia, particularly in industries such as healthcare and education, where a higher ratio of women are employed.



19EXS3



Global Crises, Youth and Education: Innovative Approaches to Risk, Resilience and Resonance

Moderator   Ulrike Bollmann President, The European Network Education and Training in Occupational Safety and Health (ENETOSH), Germany	Moderator   Tomoe Kumojima Lecturer, Nara Women's University, Japan	Resonance as a Source of Resilience for Adolescents and Adults   Hartmut Rosa Professor, Friedrich-Schiller-University Jena, Director of the Max Weber Centre for Advanced Cultural and Social Studies (Max-Weber-Kolleg) at the University of Erfurt, Germany	Practices of Hope: Relational Resilience and Social Change in Education and the Transition from School to Work through Part-time Jobs   Arne Linseth Bygdas Research Professor at the Centre for Welfare and Labour Research of the Oslo Metropolitan University, Norway
The Science of Societal Safety – its Principle and Education   Mamoru Ozawa Professor emeritus, Kansai University, Senior Researcher at the Research Centre for Societal Safety Sciences at Kansai University, Japan	Improving the quality of education through the “Good Healthy School Initiative (GHSI)”   Peter Paulus Professor, Leuphana University Lüneburg, Director of the Centre for Applied Health Sciences (ZAG) of the Leuphana University Lüneburg, Germany		

Summary

A central insight was the need to question the prevailing “logic of growth”, which relies on continuous material expansion, technological acceleration and cultural innovation. This “dynamic stabilisation” risks exhausting ecological resources and fostering aggression: against nature, in social relations, and toward oneself. Symptoms such as burnout and depression illustrate the consequences.

As an alternative, sociologist Hartmut Rosa (Jena) proposed “resonance”: a responsive relationship with the world, where people are touched and transformed by encounters – whether through a friendship, a film or meaningful work. Resonance cannot be forced but requires trust and openness to vulnerability.

Hope, understood not as an individual feeling but as a shared practice, plays a vital role here. Arne Bygdas (Oslo) described this as “relational resilience”: young people become resilient when they are listened to, taken seriously and allowed to take the lead on issues that matter to them. Early work experiences can further strengthen resilience by building competence, responsibility and self-efficacy.

A broader perspective on safety and health is also essential. Mamoru Osawa (Kansai University) introduced the Japanese model of Societal Safety Science, which integrates cultural, historical, economic and technical dimensions. Students are trained as generalists across diverse fields, preparing them to address complex safety and disaster challenges nationally and globally.

Finally, education itself must become a resource for health and well-being. According to Peter Paulus (Lüneburg), this requires “salutogenic management”: schools and universities that are structured, supportive and meaningful create a “sense of coherence” among students and staff. Such environments make it more likely to build resonant relationships with the world and to break the cycle of aggression and burnout.

The theoretical insights were complemented by youth video productions on disasters, digitalisation, first work experiences, strategies of emotional self-regulation and project-based learning – creative testimonies of resilience in uncertain times.



19C2



Present and future of OSH Professionals. Challenges and Opportunities in a Changing World

Moderator	An organisational Case study – Hitachi Rail	Integrating OSH Data into ESG Reporting & TPM Projects	The OSH profession in a rapidly evolving landscape: AI and the Green deal
  Francesco Santi President of ENSHPO, a European association, Italy	  Alfredo Tommasone Worldwide Head of Health and Safety, Environment and Physical Security, Hitachi Rail STS nationality, Italy	  Katerina Marozava Senior Sustainability Expert, AIAS Belarus	  Anar Malikov TCS, Azerbaijan

Summary

The Role of EHS Professionals is Broadening Beyond Compliance

The responsibilities of EHS professionals are evolving from a narrow focus on compliance and operational safety towards a broader, more strategic remit. Today, many are expected to engage in sustainability planning, ESG reporting and even governance-related decision-making. This shift positions the EHS professional as a cross-functional leader who must understand both technical safety issues and the strategic priorities of the organisation

AI and Digitalisation Present Both Opportunities and Risks

Artificial intelligence is already reshaping risk identification, monitoring, and safety decision-making, offering powerful tools for predictive analytics and automation. However, this rapid technological adoption comes with new challenges, including concerns over data privacy, ethics, and workforce displacement. EHS professionals must not only embrace digital tools but also ensure that their implementation strengthens, rather than compromises, workplace safety and human oversight.

Integrating OSH into Sustainability Reporting Enhances Organisational Value

By embedding OSH metrics into sustainability reporting frameworks, organisations can improve their ESG ratings, enhance stakeholder trust and even increase their perceived value during mergers and acquisitions. Systems such as Total Productive Maintenance (TPM) provide practical structures to align OSH with broader sustainability goals. This integrated approach reinforces OSH as a contributor to long-term business resilience, not just risk reduction.

New EU Directives Require Proactive and Informed Adaptation

The introduction of European directives such as CSRD (on non-financial reporting), Due Diligence and the AI Act will significantly impact how EHS functions are embedded in corporate strategy. These regulations are not only compliance hurdles - they are also opportunities for EHS professionals to lead on organisational adaptation. To do so effectively, professionals will need to upskill in areas such as sustainability reporting, regulatory analysis and cross-functional collaboration.

EHS Professionals Need a Future-Focused Skillset

The changing nature of work demands that EHS professionals invest in developing new competencies aligned with the sustainability agenda. Key areas for growth include stakeholder engagement, climate risk assessment and understanding non-financial reporting standards. Lifelong learning and continuous professional development (CPD) will be essential for staying effective and credible in this expanded professional landscape.



GISHW @EXPO2025
Technical Tours
Party
High-level Summit
World Assembly
Standard-ization Forum
Mukaidono Safety Award
Finesthable Well-being
Int'l Symposium
ILO Youth Congress
Festival
Exhibition
Baton to Riyadh
Osaka Declaration
Messages

19C3

Don't look to the Past for Solutions for the Future

Moderator	Equality is a Forbidden Word	Future-Focused Risk Prevention: Innovation, Resilience, and Mental Health for Safer Workplaces
 Dr. Pedro R. Mondelo Director of ORP Full Professor at the Polytechnic University of Catalonia Director of the Specific Research Center for Business Improvement and Innovation (CERp-IE) at the Polytechnic University of Catalonia Director of the ORP International Congresses and Symposia on Risk Prevention Director of ORP Spain	 Cristina Maestre González Manager Igualia - SGP Group Spain	 Jaime Vázquez Director General SECAMAIN SA Mexico

Summary

1. Emerging technologies with a human compass. AI, robotics, and analytics reduce physical accidents but raise the bar for psychosocial risks and cultural change. The 5Z framework (Zero Accidents, Illness, Waste, Inequality, Ignorance) offers a holistic prevention model.

2. Beyond compliance: purpose and ethics. Prevention becomes strategic when linked to corporate purpose, equity and diversity, not just checklists.

3. Cross-regional learning accelerates maturity. Cases from Europe, LATAM and Asia showed that sharing operational models (enterprise–academia–government) speeds up implementation.

4. Japan as a laboratory for the future of work. Its unique mix of innovation + demographic challenge provides early signals for active ageing policies, cognitive ergonomics, and safe automation.

5. Distributed leadership. Sustained change requires multiple leaders (board, managers, supervisors, worker reps) with shared metrics.

Conclusion: The session confirmed that the future of prevention will be built on ethical technology, 5Z culture, distributed leadership, and international co-creation.



19S1



Digital (incl AI) & tech solutions to Promote Health and Wellbeing at work

Moderator	Applying AI, Cloud Computing and Machine Learning for Non-intrusive Health Checks through ARIA	Power-assist Trolley and Follow-me Robots for Improving Logistics Efficiency	A People-Centered Approach to Create Happier and Healthier Workplaces
  Cindy Chow Chairlady, OSH Innovation and Information Technology Committee, Occupational Safety and Health Council, Hong Kong Special Administrative Region, China	  Benny Zee Chung Ying Chief Executive Officer, Health View Bioanalytic Limited, Hong Kong Special Administrative Region, China	  Simon Wong Chief Executive Officer, Logistics and Supply Chain MultiTech R&D Centre Limited, Hong Kong Special Administrative Region, China	  Richard Hall Managing Director, Citybus Limited, Hong Kong Special Administrative Region, China UK
Lower Back Exosuit: Lightweight and Affordable as Clothing	AI-driven Predictive Maintenance: Enhancing Workplace Safety and Employee Well-being in Smart Buildings	Evolving Science-based Process to Find the Optimal Heat-stress Prevention Solution	
  Kelvin Ho-Lam Heung Research Assistant Professor, Hong Kong Polytechnic University, Hong Kong Special Administrative Region, China	  Harris Sun Chief Executive Officer, RaSpect, Hong Kong Special Administrative Region, China	  Ray Tsui Senior Consultant, Occupational Safety and Health Council, Hong Kong Special Administrative Region, China	

Summary

1. Leveraging AI and IoT technologies allows for early detection of health risks. For example, Automatic Retinal Image Analysis (ARIA) Wellness Tracker helps reduce physical, cognitive, and mental health risks with lifestyle and psychosocial intervention.
2. Technological advancement such as IoT, AI, Video Analytics, Robotic solutions, etc. will be one of the most effective ways to help improve health and well-being in various sectors.
3. A strong spirit of innovation and workplace digitalization enables organizations to effectively adopt advanced technologies such as AI, robotic solutions, smart wearables, exoskeleton and AI-powered drones. These technologies improve health and well-being and enable high-risk tasks to be performed safely.
4. Tailor-made health assurance programme such as heat stroke prevention programme plays a key role in safeguarding workers in extreme weather, while promoting workplace health and overall employee well-being.
5. People-centered approach, collaboration and engaging hearts and minds are essential for creating a happier and healthier workplace. By embedding health and well-being into daily operations, the company strengthens its safety and health culture.



1952



The Mental Health and Well-being - the Impact of Meaningful Work

Moderator	Keynote Six claims for a better work-life	Panelist	Panelist	Panelist
  Kelly Nicoll President Institution of Occupational Safety and Health (IOSH), UK	  Hartmut Rosa Professor, Friedrich-Schiller-University Jena, Director of the Max Weber Centre for Advanced Cultural and Social Studies (Max-Weber-Kolleg) at the University of Erfurt, Germany	  Christopher Davis Thought Leadership Manager Institution of Occupational Safety and Health (IOSH), UK	  Stine Moesmand Organisational Psychologist & Head of Department Human House, Denmark	  Permille Thau Vice President of Global Services Human House, Denmark

Summary

1. Modern-day working conditions are to some extent determined by an economic and social model that demands acceleration (i.e., growth, speed, turnover). This drives a scenario in which labour becomes, ultimately, an expendable resource that facilitates acceleration but not human wellbeing.
2. The phenomenon of workplace stress and anxiety – and the acute symptoms of burnout and alienation – is experienced by workers who struggle to understand or moderate their relationship with the world through work. The sociological theory of “resonance” (i.e., a positive relationship with people, objects, the self, or the wider world) was therefore posited as something that could be addressed through work.
3. Given the changing expectations workers have of employment in terms of job quality, and also given future scenarios in which automation will replace certain roles (or large parts of them), the need for employers to consider the meaningfulness of the work they offer is urgent. The provision of meaningful work, based on meaningful tasks and relationships, and supportive of positive self-identification, should be considered business priority, especially as its absence will in itself be a risk factor.

Summary

1. As a supervisory entity, the Ministry of Energy plays a proactive role in enabling institutional leadership in occupational safety, security, and health.
2. The Ministry of Energy recognizes that Saudi Arabia’s global leadership in energy brings with it a responsibility to shape the future of safety at both the regional and international levels, especially in high-risk industrial environments and emerging technologies.
3. This dialogue has affirmed that safety leadership is not merely supervisory; it is a moral responsibility, a national priority, and a shared obligation that begins at the top and echoes throughout the organization.
4. OSH is central to Vision 2030 and beyond: Saudi Arabia is embedding occupational safety and health as a long-term national priority.
5. Wellbeing is now a core OSH focus: Employee mental health, engagement, and psychological safety are gaining institutional traction.
6. Stronger systems and aligned regulations are in place: Saudi OSH frameworks are becoming more unified, transparent, and aligned with global standards.
7. Digital tools are transforming safety: AI, data, and tech-driven platforms are enhancing risk prevention and decision-making.
8. Fostering Regional Leadership: KSA is leveraging its Vision 2030 progress to champion and enable higher OSH standards across the region through collaboration.
9. Enabling Through Collaboration: NCOSH is evolving from a regulator to a strategic enabler, fostering a shared culture of safety through local and international partnerships.
- 10 Digital transformation in OSH is no longer optional — it is a strategic imperative aligned with Vision 2030 goals, driving innovation and resilience across safety functions.
- 11 Real-world implementation of technologies like AI, IoT, and data analytics has led to measurable improvements in hazard identification, risk mitigation, and safety decision-making.
- 12 Cultural and behavioural change is critical to successful digital adoption, with organizations noting shifts in employee mind-sets and engagement as key enablers.
13. Challenges such as resistance to change and legacy systems remain, but can be overcome with leadership support, targeted training, and cross-functional collaboration.

1953



Advancing Occupational Safety, Health, and Well-being in Saudi Arabia: Leadership, Innovation, and Vision 2030

Panel 1: Leadership in Occupational Safety & Health: From Compliance to Impact

Moderator	Chair	Panelist	Panelist	Panelist
 Eng. Ali Al Bulayhi Director of Safety & Prevention, Ministry of Energy, Kingdom of Saudi Arabia	 Eng. Fuad Mosa Advisor for Energy Minister and General Supervisor for International Project Management Office, Kingdom of Saudi Arabia	 Eng. Ghassan Abu Alfara Vice President and Chief Loss Prevention Engineer at Saudi Aramco, Kingdom of Saudi Arabia	 Eng. Sultan Almahasheer Executive Vice President, Environment, Safety, Security & Health, Saudi Electricity Company, Kingdom of Saudi Arabia	 Eng. Sultan Al-Harhi President & CEO SASREF Kingdom of Saudi Arabia

Panel 2: Saudi OSH Aspirations: 2030 and Beyond

Moderator	Co-Chair	Panelist	Panelist	Panelist
 Abdullah Abdulmohsen Aldayel International Relations Manager at NCOSH, Kingdom of Saudi Arabia	 Eng. Rayan F. Alzoreki Deputy Secretary-General of the National Council for Occupational Safety and Health (NCOSH), Kingdom of Saudi Arabia	 Dr. Marwan Ahmed Behisi Occupational Medicine Consultant at Johns Hopkins Aramco Healthcare (JHAH), Kingdom of Saudi Arabia	 Dr. Abdulrahim Hussain Hewaidi Wellbeing Consultant with NCOSH, Kingdom of Saudi Arabia	 Nurana Mammadova Head of the Department of Research, Innovations, and Labour at the OIC Labour Centre, Baku, Azerbaijan

Panel 3: Digital Transformation and its Impact on Safety and Health Practices

Moderator	Co-Chair	Panelist	Panelist
 Abdulrahman Alqahtani Head of Occupational Health at SASREF, Kingdom of Saudi Arabia	 Eng. Abdulrahman Al-Amer Loss Prevention Tech Service Unit, Aramco, Kingdom of Saudi Arabia	 Eng. Mohammed Al-Anzi Digital Transformation Department Manager, Saudi Electricity Company (SEC), Kingdom of Saudi Arabia	 Eng. Saud Al-Anzi Principle Engineer, Safety and Health Global EHSS, SABIC, Kingdom of Saudi Arabia

Digital Transformation in Safety

Eng. Abdulrahman Al-Amer
 Loss Prevention Tech Service Unit, Aramco, Kingdom of Saudi Arabia

From Reactive to Remarkable: The Evolution of our HSSE Performance Framework

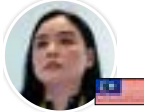
Eng. Tariq Alrawili
 Safety Planning and Technical Support Manager, Saudi Electricity Company (SEC), Kingdom of Saudi Arabia

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سابك
عابكوزارة الطاقة
MINISTRY OF ENERGYالشركة السعودية للكهرباء
Saudi Electricity Company

19G1

Managing disablement and rehabilitation for the injured workers

Moderator A System That Works: Malaysia's Disability Management	A System That Works: Malaysia's Disability Management	Intensive, Advanced Rehabilitation for Injured Workers
  Dr. Azlan Darus Head of the Prevention, Medical, and Rehabilitation Division of PERKESO Malaysia	  Emy Baizura Azrin M. Hakke Disability Management Branch, Social Security Organization, Malaysia	  Dr. Hafez Bin Hussain Chief Executive Office, PERKESO Rehabilitation Centre, Malaysia

Summary

1. Holistic Disability Management
- Managing disablement requires a holistic approach that integrates medical, vocational, and psychosocial support to help injured workers return to work. PERKESO's model combines these services with stakeholder engagement, staff training, and digital tools like the national employment portal to promote inclusive opportunities.
2. Early Intervention is Critical
- Prompt identification and timely rehabilitation interventions, supported by AI-driven disability management rating and integrated intervention pathways, significantly improve recovery outcomes, reduce long-term disability, and enhance return-to-work rates.
3. Collaboration and Partnerships
- Effective rehabilitation and reintegration require strong collaboration between healthcare providers, employers, insurers, and social security institutions. Participants highlighted Malaysia's role in regional knowledge sharing, with PERKESO promoting good practices in disability management through international partnerships, CDMP training, and workforce reintegration.
4. Enhancing Rehabilitation Through Innovation and Worker-Centered Approach
- A worker-focused approach to disability management should combine medical care, rehabilitation, and return-to-work support. Innovative tools like robotic therapy, virtual reality, tele-rehabilitation, and AI can speed up recovery and more accessible. Centres like the PERKESO Rehabilitation Centre shows how combining technology with personalised support helps workers return to work more effectively. By embracing digital solutions and inclusive practices, we can build stronger, more accessible rehabilitation services worldwide.



19G2



Safe Future: Emerging OSH Technologies

GISHW
@EXPO2025Technical
Tours

Party

High-level
SummitWorld
AssemblyStandard-
ization ForumMukai dono
Safety AwardFinejobble
Well-being

Symposium

Int'l

ILO Youth
Congress

Festival

Exhibition

Baton to
RiyadhOsaka
Declaration

Messages

Moderator	Humanizing Technology: Acciona's Strategy for Digital Health and Safety	Bosch Occupational Safety & Cybersecurity	Utilizing Artificial Intelligence in Addressing Musculoskeletal Disorders at the Workplace
  Dr. Pedro R. Mondelo Director of ORP Full Professor at the Polytechnic University of Catalonia Director of the Specific Research Center for Business Improve- ment and Innovation (CERpIE) at the Polytechnic University of Catalonia Director of the ORP Internation- al Congresses and Symposia on Risk Prevention Director of ORP Spain	  Pablo Yañez Health and Safety Global Direc- tor Acciona Spain	  Hiroyuki Kawamoto Sales for Japan Region Bosch Global Software Technolo- gies GmbH Japan	  Ram Maikala Program Technical Consultant National Safety Council, USA Chair, ANSI/ISO TC 159SC4, USA India

Summary

1. An ecosystem of connected solutions. Wearables + AI + IoT form complementary layers (detection, prediction, validation), integra- ble into unified OSH platforms.
 2. Human-by-design innovation. Effective technology reduces cognitive load, lowers human error, and safeguards mental as well as physical health.
 3. Cross-sector and cross-regional learning. Infrastructure, manufacturing, and services share insights on adoption, cultural change, and ROI measurement.
 4. Industry as a standard-setter. Tech-led initiatives by companies can raise the bar across supply chains (digital safety requirements, interoperability, data sharing).
 5. Partnerships scale impact. Enterprise–Academia–Government collaboration accelerates pilots, validation, and enabling regulation.
- Conclusion: A “safe future” depends on balancing digital innovation with human values, tracked by leading KPIs and validated by clinical/operational outcomes.



19G3



Navigating Workplace Safety in the Digital Age

Moderator	Moderator	Enhanced Workplace Safety with Smart Manufacturing	Navigating Safety in the Digital Age: Immersive Solutions for a Safer Future
  Andrea Weimar Secretary General, ISSA Section Machine and System Safety Germany	  Jennifer Papantuono Adviser for International Relations, ISSA Section for Electricity, Gas and Water/BG ETEM Germany	  Otto Goernemann Manager Machine Safety Standards & Regulations, SICK AG Germany	  Lisa McGuire ICD.D, CRSP, CEO, GalaxyEDGE Safety Inc. Germany
Industrial Security, Global Responsibility	Navigating Safety in the Digital Age: Immersive Solutions for a Safer Future		
  Jonas Stein Section Manager – Industrial Security, IFA Germany	  Harrison Olajos CEO, UP360 Canada		

Summary

- Automation and intelligent systems keep transforming workplace safety and productivity – new risks need to be controlled; machines have to be safe independently of their technology. On the other hand, new technologies are helpful and required for the future, and new safeguarding approaches will improve safety and productivity. Cybersecurity risks should be kept in mind. More research and data are required.
- Immersive learning (using technologies such as VR, AR and XR) is reshaping OSH training and is especially useful in high-risk scenarios. Benefits of immersive learning include the activation of multiple senses, consistency in delivery and evaluation across teams and geographies and improved engagement and motivation as immersive formats are more emotionally and cognitively stimulating. Challenges in the adoption of immersive learning technologies include high start-up costs, limited technology capacity, resistance to change as well as cybersecurity and data privacy concerns.
- Industrial security is a key concern that calls for global collaboration in protecting connected workplaces. As security incidents have the capacity to harm workers creating awareness of the issue is very important. In addition, there are some quite simple solutions that can help companies to be better prepared for hacker attacks.



19G4



Changing Attitudes to OSH training: Vision Zero for a Changing World

Moderator	Moderator	New methodological approaches and skills for contemporary OSH training	Towards a higher prevention level with the Vision Zero Mind-set
  Nadja Schilling ISSA Section on Prevention in Transportation, Germany	  Alison van Keulen ISSA Section for Education and Training in Prevention, UK	  Silvester Siegmann Heinrich Heine University, Germany	  Lars Tornvig Director, Human House, Denmark
Changing attitudes to OSH training – Quality of OSH Training	Vision Zero in Action: Driving Lasting Change in transportation		
  Anar Malikov TCS, Azerbaijan	  Nadja Schilling ISSA Section on Prevention in Transportation, Germany		

Summary

1. Vision Zero is a Cultural Mindset, Not Just a Safety Program

The session clearly demonstrated that Vision Zero must be integrated into the DNA of an organisation, not treated as a standalone safety policy. It's a leadership-driven, value-based framework that can transform workplace culture when embraced across all levels, from the boardroom to the shop floor. Organisations that embed Vision Zero as a strategic and cultural mindset, rather than a checklist, are better positioned to adapt to emerging risks and create sustainable safety outcomes.

2. Quality OSH Training Needs to Be Strategic, Inclusive and Locally Relevant

Presenters emphasised that OSH training quality varies widely, especially between developed and developing regions. A key insight was the need to balance global principles with local realities, ensuring content is relevant, engaging, and culturally resonant. To make lasting impact, OSH training must go beyond compliance, embracing experiential methods, skilled trainers and workforce-specific adaptations that foster real engagement and learning transfer.

3. Leadership is the Catalyst for High-Impact Safety Transformation

Presentations highlighted that senior leadership plays a decisive role in safety culture evolution. The shift from "telling" to "showing", where leaders demonstrate daily commitment to Vision Zero principles, was framed as critical to embedding long-term change. Leaders must actively model safety behaviour, embed accountability and foster trust to catalyse a meaningful and enduring safety-first culture.

4. Integrating OSH into Early Education Builds a Foundation for Future Resilience

The case study focused on students at Heinrich Heine University emphasised the power of starting OSH awareness early. The inclusion of safety, health and wellbeing in academic curricula prepares future professionals to view OSH as essential, not optional, in their roles as decision-makers. Embedding Vision Zero concepts into early education and training is a proactive investment in shaping the safety leaders of tomorrow.

5. Effective Communication is Key to Whole-Organisation Alignment

The panel discussion brought forward the challenge of tailoring safety communication for different organisational levels. To make Vision Zero a shared language, safety messaging must be translated to resonate with strategic, operational and frontline priorities. Customising communication, from metrics for executives to storytelling for workers, is essential to building trust, shared ownership and commitment to Vision Zero across all layers of an organisation.



19H1



Hardrock requires Strong Culture: ESG and Sustainability begin in Mining

Moderator Leadership is Key	The Evolution in Prevention Cul- ture in South-East Asia	The Impact of Artificial Intel- ligence on Occupational Risk Management in Mining: From Digitalization to AI	VISION ZERO in Peruvian Mines
  Roberto Hermosilla Corporate Occupational Health and Safety Manager Progreso, Guatemala	  Thi Hoai Nga Nguyen Professor Doctor Hanoi University of Mining and Geology, Vietnam	  Alex Cabrera CEO Previsis Chile	  Belisario Perez Safety and Occupational Health Manager Minsur S.A., Peru

Summary

All around the globe humans are longing for a good life for themselves and their families. Modern technology opens new opportunities for a better life, but in a connected world, the global economy and growing living standards depend on sustainable supply chains and most of those begin in mining.

As a logical consequence, mining all over the world must go ahead and demonstrate its responsibility for humans and for nature – meaning safety, health, wellbeing for humans and sustainable care for nature begin in mines and extraction of natural resources all around the world. Advanced multinational mining corporations and many committed companies are setting good examples already, but there are still human suffering and environmental disasters caused by mining activities and fatalities and fatal disease rates in mining in general are far above the average for other sectors of the economy.

To improve this situation and to promote a new mindset of responsibility and care, the VISION ZERO Strategy and its fundamental 7 Golden Rules have first been developed for the mining sector and became meanwhile the prevention culture strategy beyond compliance for all workplaces in any sector.

The session demonstrated exemplary practical solutions to implement a new prevention culture at the various work situations in mining and shows best practise on the crucial role of leadership behaviour and sustainable care to protect lives and health of all workers.

1. Prof. Dr. Thi Hoai Nga Nguyen presented a success story from Vietnam and showed remarkable achievement from the coal mining industry for the evolution in prevention culture.
2. Alex Cabrera from Chile reflected on the impact of artificial intelligence on occupational risk management in mining. He announced the launch of a new VISION ZERO software solution based on AI technology, which will be developed by his company PREVISIS.
3. Belisario Perez, manager for safety and occupational health at Minsur S.A in Peru presented the incredible improvements which are achieved for the Minsur mines after implementing VISION ZERO and the 7 Golden Rules.
4. Finally the convincing and visible leadership commitment at the multi-national cement company PROGRESO from Guatemala has been demonstrated by Roberto Hermosilla, responsible for safety and health in the company.
5. As a summary, the session demonstrated the leading role of mining in implementing the VISION ZERO mindset but addressed the huge need as well to involve all miners around the globe including “informal” or so-called “illegal” miners.



19H2



Applying Vision Zero to Occupational Safety in Healthcare: How to Reduce Infection Risks, Musculoskeletal Strains and Mental Stress?

Moderator	VISION ZERO Guide for Workplace Violence in the Health Care Services	Lumbar strain while moving hospital beds – a comparative study	Comparative Product Testing for Long-Term Occupational Safety: Insights from Needlestick Injury Prevention	Managing Exposure to Hazardous Chemicals in Healthcare
  Björn Kähler Secretary General of the International Section of the ISSA on Prevention of Occupational Risks in Health Services German Social Accident Insurance Institution of the Health and Welfare Services (BGW) Germany	  Miriam Stuckert Advisor for international and sociopolitical collaboration, German Social Accident Insurance Institution of the Health and Welfare Services (BGW) Germany	  Prof. Claus Backhaus Head of the Center for Ergonomics in Medical Technology, FH Münster, University of Applied Sciences Germany	  Dr. Niels Hinricher Assistant Professor at the Center for Ergonomics in Medical Technology, FH Münster, University of Applied Sciences Germany	  Johannes Gerding Senior Scientist Toxicology, German Social Accident Insurance Institution of the Health and Welfare Services (BGW) Germany

Summary

1. VISION ZERO Guide for Workplace Violence in the Health Care Services Harassment and violence in the workplace pose a serious risk for health care professionals. They have a negative impact on the employees' health and well-being as well as the motivation and performance of those affected. This guide applies the seven golden rules of the VISION ZERO strategy to the health care environment and aims to provide the leadership personnel with measures to prevent workplace violence. Additionally, it guides the facilities in the process of dealing with a violent event and how to best support the affected employees.

BGW test as series of different projects assess the suitability for use of medical devices, currently examples were presented:

2. Action and Lumbar Forces when Moving Hospital Beds Caregivers are among the occupational groups most frequently affected by musculoskeletal disorders. In addition to tasks like mobilizing patients, moving heavy medical equipment can impose significant strain on the lower back. Transporting patients in hospital beds in particular, leads to considerable loads on the lumbar spine. This study investigated 12 different hospital beds to measure the forces exerted on caregivers' backs during bed moving. The findings provide objective recommendations for design improvements, such as using hospital beds equipped with a fifth wheel to sustainably reduce the physical strain on caregivers.

3. Safer Disposals: Comparative Study of Sharps Disposal Containers Approximately one third of needlestick injuries occur during the disposal of sharp instruments. This study identifies usability and safety issues with 20 sharps disposal containers. There was a lot of variation to be found within the usability of the products hence leading to safety risks for the individuals handling them. This study shows that even comparatively simple products can have a significant impact on the safety of medical staff. It also offers specific recommendations on how health care facilities can sustainably reduce needlestick injuries through the targeted selection of suitable disposal containers. To further this process, they should also involve medical staff in product testing and evaluation before making a purchasing decision.

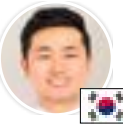
4. Exposure to Hazardous Substances in Healthcare Settings: Managing Well-Known and Emerging Occupational Safety Risks From chemicals in cleaning agents and disinfectants to the handling of carcinogenic formaldehyde in pathology laboratories, hazardous substances are widely used throughout the healthcare sector. As working techniques continually evolve, the field of occupational safety has to keep pace with the rapid technological progress to provide safe workplaces in order to ensure safety, health and wellbeing for all health workers. This talk addressed the latest challenges in occupational safety concerning the safe use of chemicals in healthcare facilities. A significant focus will be on the critical role of systematic exposure assessments, to effectively monitor and manage risks. We will explore safety solutions and present practical examples demonstrating how exposure assessment data can support robust risk assessments and the development of guidelines and best-practice safety protocols (e. g. for the safe handling of hazardous medicinal products).



19H3



Digitalization, AI and Big Data-based OSH Management

Moderator	Moderator	Plan for Establishing a Supporting System of Industrial Disaster Prevention based on A	How Data Science Empowers My Research and Fulfills My Responsibility to Society	AI Tsunami and Changing the OSH paradigm
  Prof. Seong-Kyu KANG President of ICOH/ Gachon University Hospital, Incheon, Korea Rep.	  Dr. Diana GAGLIARDI Director, Research Section, INAIL, Italy	  Chang-hun LEE KOSHA Korea Rep	  Jin-Ha YOUN Yonsei University, Korea Rep.	  Mahinda Seneviratne Work Health Strategist, Dharug Country Australia
Psychosocial risks and digital technology: Brand new risks or same old story?		The Influence of Technology on Work Organization and Psychosocial Factors: Balancing Innovation and Employee Well-being		
  Quentin Durand-Moreau University of Alberta Canada	  Ro-Ting Lin China Medical University Taiwan	  Sameer Chaudhar Hitachi Energy India		

Summary

1. Digitalization and AI Present Both Opportunities and Risks for OSH

Ethical governance and updated standards are essential to manage digitalization risk and AI across supply chains and ensure technology supports Decent Work.

2. AI and Big Data Drive Predictive OSH Innovation

KOSHA presented AI-powered tools that predict high-risk workplaces, detect hazards, and guide safety improvements, enhancing prevention efforts, for SMEs.

3. Digital Work Intensifies Psychosocial Risks

Algorithmic management, surveillance, and constant connectivity increase stress, burnout, and anxiety—especially for platform and informal workers.

4. Technology Can Support Worker Well-being

AI tools support burnout prediction, emotional self-checks, and digital counseling. With ethical design, these technologies enhance well-being and resilience at work.

5. Governance and Inclusion Are Critical to Safe Innovation

The session called for robust governance, cultural sensitivity, and design equity to ensure digital OSH protects vulnerable groups and aligns innovation with dignity.



19H4

Female Leadership and Representation in Health & Safety

Moderator	Panelist	Panelist	Panelist	Panelist
  Richard Jeffers Chief of Staff, Health & Safety Executive (HSE), UK	  Sarah Albon Chief Executive, Health and Safety Executive, UK	  Nancy Wilk President International Occupational Hygiene Association (IOHA), Canada	  Mohammed Abushal Head of Human Factors Safety at Aramco Kingdom of Saudi Arabia	  Jane Lassey Director of Regulation Health and Safety Executive (HSE), UK

Summary

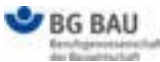
1. This session featured a panel-led discussion involving participants from a range of industry and regulatory backgrounds. Using diverse examples from their own careers the panel sought to explain how modern leadership can encourage and support the participation of women in this space.
2. Overall, the picture is an improving and evolving one and there has been considerable change in workplaces which has supported and encouraged women in to the field. Notwithstanding this, there remains much more that can be done, in particular around leadership styles and on a more practical level, including around provision of PPE.
3. There are and remain tremendous opportunities for businesses and regulators in ensuring they have access to, and draw from, the widest possible segments of society – through greater encouragement and facilitation, greater numbers of women can be encouraged both into this space and to lead in this space.



19F1



How to reach Vision Zero in the Construction Industry: Innovative Solutions

Moderator Introduction to the session “How to reach Vision Zero in the Construction Industry: Innovative Solutions”	Safety, Health and Wellbeing in the Construction Industry in Germany: The Holistic Prevention Approach	The German Social Accident Insurance from the employer’s perspective	The importance of Occupational Safety for any CEO: Mindset Leading to Digital Best Practice Examples in a German Construction Company
  Pro. Karl-Heinz Noetel President of ISSA Construction Germany	  Michael Kirsch CEO of BG BAU, Safety, Health and Wellbeing in the Construction Industry in Germany	  Walter Sailer Chairman of the Executive Board of BG BAU, German, Safety for companies Germany	  Andreas Mainka CEO Mainka Bau GmbH & Co. KG Germany
Adapting Vision Zero to Emergency Situations: Lessons from Ukraine's Emergency Response	Innovating with AI: Optimizing Social Security Systems and Construction Safety through Intelligent Technology	Cranes - Easy to Hack, Hard to Stop. The Hidden Danger Behind Crane Remote Controls	
  Olha Bohdanova Secretary General ISSA Construction Ukraine	  Benjamin Reiser CEO BG-Phoenix GmbH Germany	  Jonas Stein Section Manager - Industrial Security of DGUV Germany	

Summary

1. To support employers and managers to continuously improve the safety and health conditions in their enterprise in line with Vision Zero, ISSA has developed a practical management tool for developing a strong safety and health culture, structured around 7 Golden Rules.

2. During the summer months, high temperatures and UV radiation pose hazards to construction industry employees that cannot always be adequately mitigated by technical or organizational measures.

In order to reduce the number of cases sustainably, we need to educate people even more concertedly about the need for protective measures against UV radiation, and in particular how easy it is to take these measures – both at work and at home.

3. It was clearly pointed out that Artificial intelligence (AI) offers new opportunities in prevention work to identify risks at an early stage and take purposeful countermeasures.

By analysing large volumes of data, AI can identify patterns that indicate potential hazards.

The BG BAU, Germany is taking advantage of this and has already implemented AI tools in its daily work.

The BG BAU's prevention experts advise and support the member companies and their employees on subjects relating to occupational safety and health.

The main goal is to prevent accidents from happening in the first place.

The BG BAU employs 500 prevention experts, who are responsible for around 600,000 member companies.

This ratio makes it impossible for every member company to be visited annually.

The solution is an AI application which was developed to support the work of the prevention experts.

The AI application analyses the member companies in the BG BAU database according to their accident record, past site inspections and other factors.

It then highlights companies with a high need for guidance.

The prevention experts decide which companies to prioritize for visits.

4. The employer presentations highlighted the fact that leadership commitment is essential for reaching the goals of Vision Zero but Safety & Health also requires a prevention culture and the strong commitment of all people – leaders, managers and workers!

The economic outcome benefits from improved OSH were described like optimized processes, optimized quality, less scrap rate, less interruptions of production process and less damages and losses.

Finally, one statement of an employer was agreed on at the end of the session and it should be a new motto for all:

We work safe – or not at all.

19F2



Managing Mental Health and Well-being

Moderator	The vision Zero mental wellbeing guide, and how to apply systematics of safety management in connection with wellbeing	Strengthening the Dialogue on Mental Well-being at Work
  Stine Moesmand Vice president, Head of international business psychology in Human House Denmark	  Pernille Thau Vice President, Global Services in Human House Denmark	  Ralf Franke Head of Global EHS / HSE at Siemens Germany
What mental well-being does and how it contributes to Best Place to Work in Japan		Enhancing mental wellbeing at work through Engagement and empowerment, with sharing on practices adopted by Hong Kong SMEs
  Thomas Heilskov-Hansen Director of Health, Novo Nordisk Health & safety Denmark	  Masako Noguchi Senior Employee Experience & Relations Mgr, Novo Nordisk Japan	  Kanako Nihei Health & Safety Partner KFA (Koriyama Factory) Novo Nordisk Japan
		  Bonnie Yau Executive Director, Occupational Safety & Health Council Hong Kong Special Administrative Region, China

Summary

Bringing practitioners together for structured dialogue—supported by real-world examples—provided the workshop with valuable and practical content. The exchange of experiences from a wide range of organizations fostered insightful learning and highlighted both similarities and differences in approaches to occupational safety and health.

A striking theme throughout the workshop was the significant variation in psychosocial initiatives, which were often shaped by culture. Companies from Hong Kong Special Administrative Region, China, and Japan, for instance, described approaches influenced by Asian values such as group harmony and respect for hierarchy. These organizations placed emphasis on maintaining a supportive environment through collective action and alignment with established protocols. In contrast, European—particularly Nordic—companies reflected more openness, inclusivity, and participatory practices, encouraging direct communication and involvement from all employees. Despite these cultural differences, all participating organizations shared a fundamental understanding: lasting improvements in mental health and well-being require interventions at every level of the organization.

The IGLO framework (Individual, Group, Leader, Organization) emerged as a universal structure, adaptable to companies of all sizes and cultural backgrounds. Regardless of specific methods or settings, a unifying thread was the commitment to addressing psychosocial risks systematically and comprehensively throughout the entire organization.

The workshop additionally emphasized the crucial role of management and leadership. Strong and responsive leadership was consistently highlighted as essential for embedding a healthy psychosocial environment and ensuring that initiatives took root across the organization. Equally important were well-functioning teams characterized by psychological safety. Teams with high levels of trust and openness were seen as better equipped to support one another, collaborate effectively, and address challenges as they arose. This psychological safety enables staff to voice concerns, share ideas, and contribute to workplace well-being.

For future workshops, it is recommended to include speakers across various organizational levels, offering insights from both strategic and operational perspectives. Such diversity of input ensures a holistic view of the factors that shape both policy and practice.

In summary, while the approaches to psychosocial well-being naturally reflect cultural differences, the shared understanding of the importance of multi-level interventions, good leadership, and psychologically safe teams is key to success in occupational safety and health.

—Designing Safety, Health and Well-being at Work in the Digital Age—

Young people are the future of work. But the future must be safe, healthy and fair for everyone. Yet young people are facing higher risk to occupational injury, often due to lack of knowledge, experience, and training. Occupational safety and health are now recognized as a fundamental principle and right at work it must be a priority for everyone.

To put young voices at the heart of safer, healthier workplaces, the ILO brought youth together at Expo 2025 in Osaka. Spanning from 2024 to 2026, this initiative puts young voices at the centre of change. It started with seminars and monitoring—building knowledge on workplace safety, health and well-being. 200 youth, from more than 25 universities and institutes in 8 countries took part in the journey to realize a safe and healthy working environment for all. In July 2025, selected youth teams gathered at the ILO Youth Congress at Expo 2025 to present their Calls to Action. These proposals—focused on safety, health, and well-being in the digital age—were shared with employers, decision-makers and global audiences, so that winning Calls to Action would be implemented by real companies.





International
Labour
Organization

Programme:

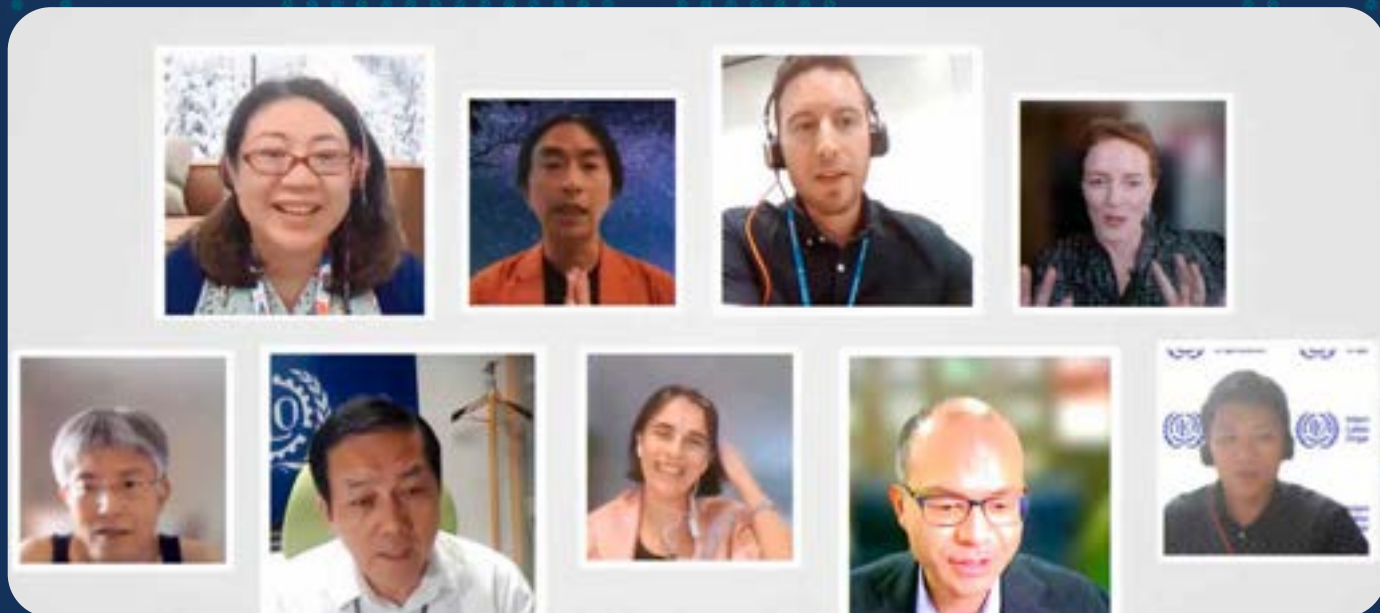
- “Work and health” talk session and live performance by Ms Yoko Oginome
- Introduction of the event and related initiatives
- Student teams’ presentations for establishing a healthy and safe working environment
- Awarding ceremony
- Photo shoot session
- Comments from an ILO expert
- Closing

(Master of Ceremonies: Ms Aki Mukai)



GISHW @EXPO2025	Technical Tours	Party	High-level Summit	World Assembly	Standard- ization Forum	Mukai dono Safety Award	Finepuble Well-being	Int'l Symposium	ILO Youth Congress	Festival	Exhibition	Baton to Riyadh	Osaka Declaration	Messages
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A series of seminars and monitoring to build knowledge on workplace safety, health and well-being





200 youth, from more than 25 universities and institutes in 8 countries took part in the journey!

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CONTESTANTS

- Daido University - Daido Team, Japan
"The "Otsubone" robot: a reliable presence for young employees"
- Okayama University - COPAIN Team, Japan
"Weaving Dignity and Health through Learning: A New Community-Based Safety Net for the World"
- The University of Osaka - Nursing Team, Japan
"Digital approaches to balancing work and self-care regarding diabetes"
- University of Occupational and Environmental Health - A Team, Japan
"Ignite a change-resilient workplace through workstyle reforms"
- Brigham Young University, USA
"Reduction of heat-related illness among vulnerable outdoor workers"
- The Hong Kong University of Science and Technology, Hong Kong
"Alleviating the mental health suffering of elderly labour"
- National Taiwan University, Taiwan
"Mental inclusion for new transitions (migrant workers)"
- Mahidol University, Thailand
"Rider support platform (delivery workers)"



Top Prize went to:
Mahidol University, "CAT to the Moon Team"
For "Rider support platform (delivery workers)"
Ms. Nahataichanok Pathomrojsakul and Ms. Sunita Songjaroen





Sources:

<https://www.ilo.org/resource/news/young-voices-champion-safer-and-healthier-workplaces-expo-2025>

<https://www.ilo.org/resource/news/ilo-hold-student-pitch-contest-promote-safe-and-healthy-working-environment>

<https://www.linkedin.com/feed/update/urn:li:activity:7376869864679858176/>

GISHW @EXPO2025	Technical Tours	Party	High-level Summit	World Assembly	Standard- ization Forum	Mukaidono Safety Award	Finepubble Well-being	Int'l Symposium	ILO Youth Congress	Festival	Exhibition	Baton to Riyadh	Osaka Declaration	Messages
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L'Oréal, in partnership with RoSPA, launched the "Safe at Work, Safe at Home" program to extend its safety culture into employees' lives and local communities, driven by the belief that large international organizations must take responsibility for protecting future generations from preventable accidents.



In this presentation, MTG and the University of Osaka explained that "Ghost Blood Vessels"—capillaries that lose blood flow due to aging and poor lifestyle habits—are linked to countless serious diseases, and introduced MTG's "Vital Tech" far-infrared textile, which is proven to promote blood circulation and potentially improve this vascular condition simply by being worn.



Fine Bubble Technology/Declaration at Expo 2025



The Fine Bubble Industry Association and ISO leaders announced their commitment to advancing fine bubble technology globally through international standardization, promoting its applications for health, sustainability, and improved quality of life.

Declaration of International Standardization for Safety, Health, Well-being @ EXPO

The declaration emphasizes a global commitment to advancing international standardization for safety, health, and well-being, aiming to create safer workplaces and inclusive societies through collaborative innovation and harmonization of standards.



The E-Kenkico Challenge 2025 was a competition held to demonstrate the potential of Digital Transformation (DX) by having young pilots remotely operate heavy machinery located 450 km away in Chiba Prefecture from the Osaka-Kansai Expo site, thereby showcasing technology that can solve industry challenges like labor shortages, improve safety, and contribute to future social goals.



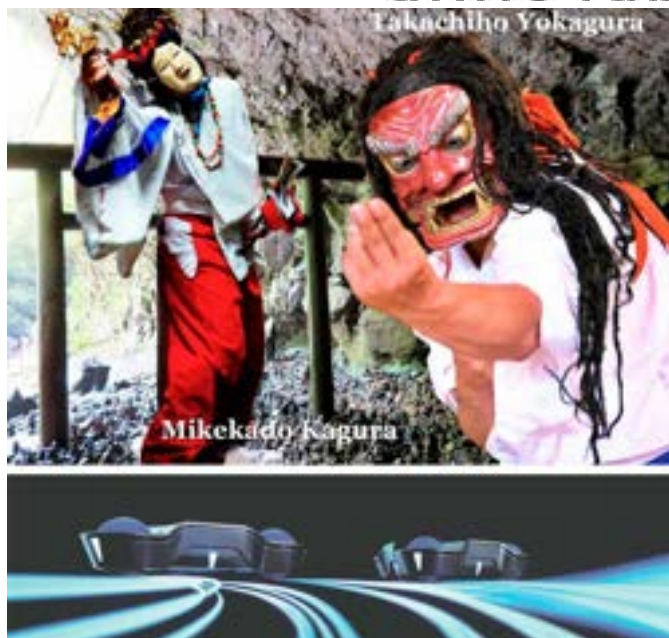
The presentation introduced a future model for work where humans and robots collaborate, leveraging remote operation technology (Remote Link) to create inclusive, seamless work environments. This system aims to free people from dangerous labor and allow everyone to gain flexible job opportunities regardless of age, physical ability, or location, making work more human-centered.



CYBERDYNE Inc. utilized innovative Cybernics technology—merging humans with cyber-physical space—to develop and deploy the HAL (Hybrid Assistive Limb) wearable cyborg for neurological treatment, alongside remote robots and biosensors, creating a global platform for future health and social innovation.



Festival Opening Show:
"The Legend of "AMANO-IWATO" 2025 -
The Return of the Sun"



The "AI Suitcase," an autonomous navigation robot previously demonstrated at malls and airports, safely guided EXPO 2025 visitors of all visual abilities on guided tours throughout the event as part of a large-scale demonstration.



EXHIBITION

JULY 16 THRU 19, 2025





GISHW @EXPO2025	Technical Tours	Party	High-level Summit	World Assembly	Standard- ization Forum	Mukaidono Safety Award	Finepuble Well-being	Int'l Symposium	ILO Youth Congress	Festival	Exhibition	Baton to Riyadh	Osaka Declaration	Messages
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National Council for
Occupational Safety & Health



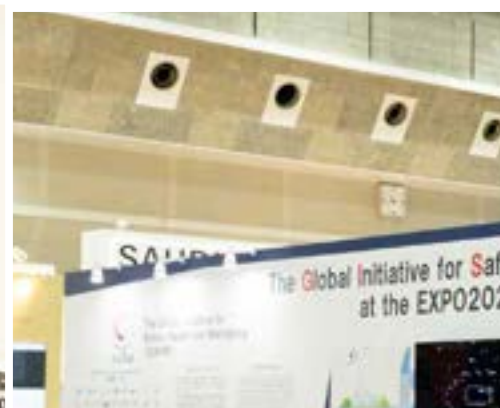
The magnificent booth of NCOSH, representing the Kingdom of Saudi Arabia, attracted participants from all over the world by elegantly showcasing their commitment and successful implementation of comprehensive worker safety, health, and wellbeing programs. The generous provision of Saudi Arabian coffee and dates for refreshment also captivated the visitors.

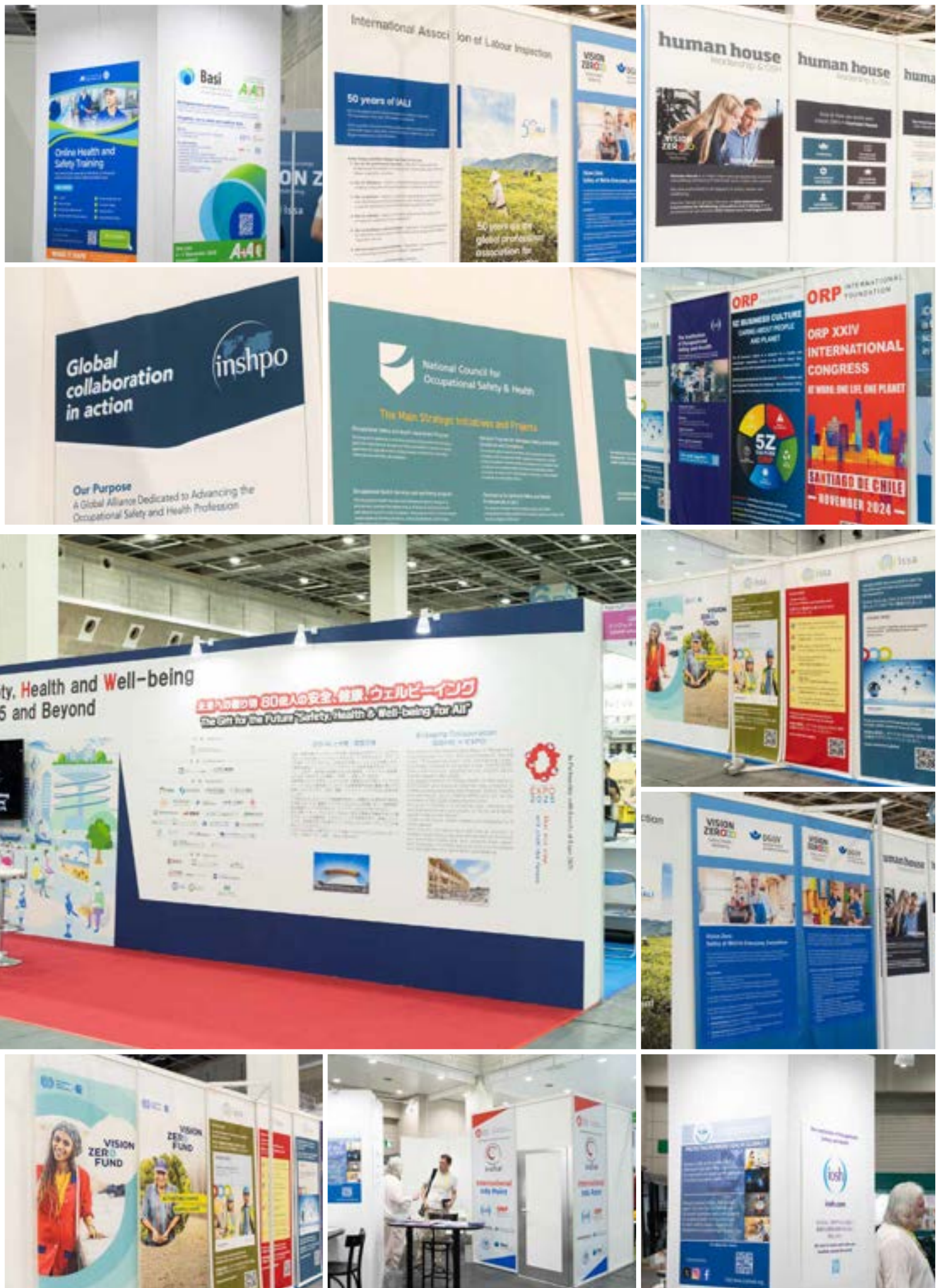




GISHW @EXPO2025	Technical Tours	Party	High-level Summit	World Assembly	Standard- ization Forum	Mukaidono Safety Award	Finepuble Well-being	Int'l Symposium	ILO Youth Congress	Festival	Exhibition	Baton to Riyadh	Osaka Declaration	Messages
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GISHW partner institutions gathered both in person and as exhibitors from all over the world, showcasing their commitment to safety, health, and well-being at work and beyond.

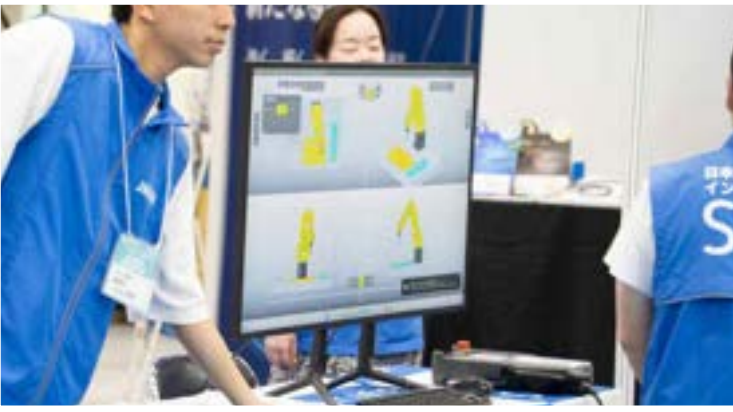




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Future Monodzukuri International EXPO 2025 and JIOSH+W (A+A) were held concurrently, featuring advanced products and technologies for safe, healthy, and sustainable workplaces.

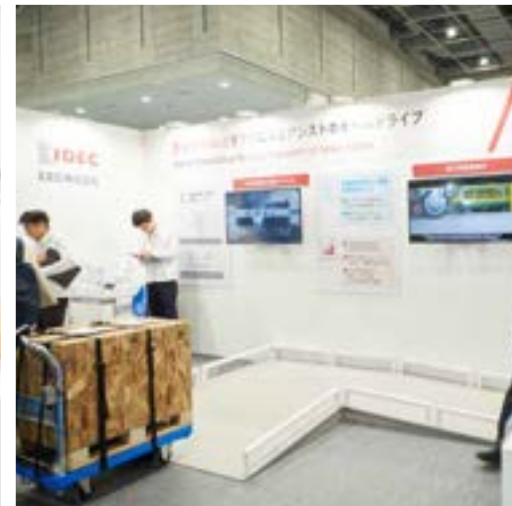


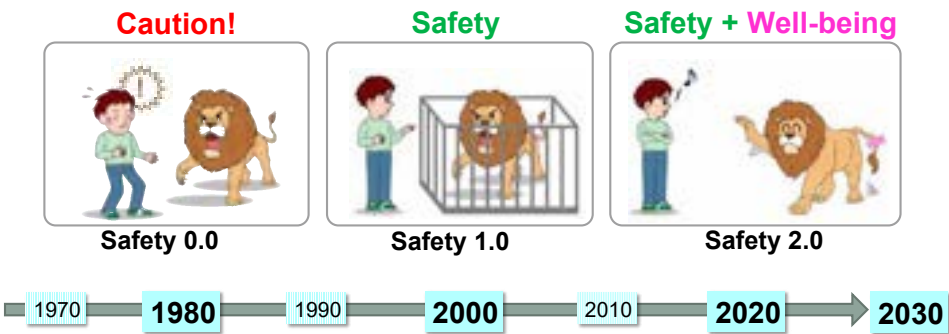


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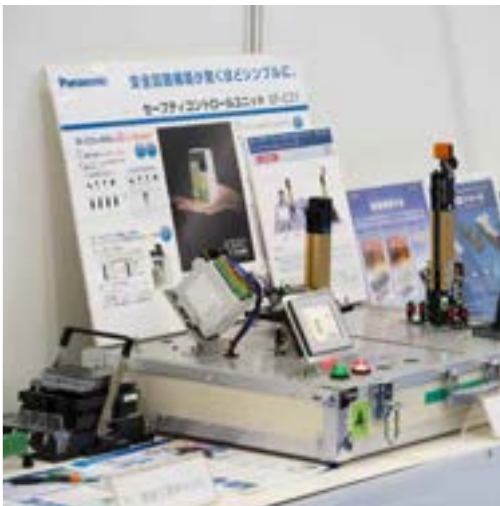
Wellbeing Technology Exhibition

This exhibition introduced a multitude of cutting-edge technologies that contribute to people's safety, security, wellbeing, and productivity improvement. It also featured the latest information, products, and solutions related to Collaborative Safety, which uses ICT to connect humans, robots, and the environment to realize cooperative work.





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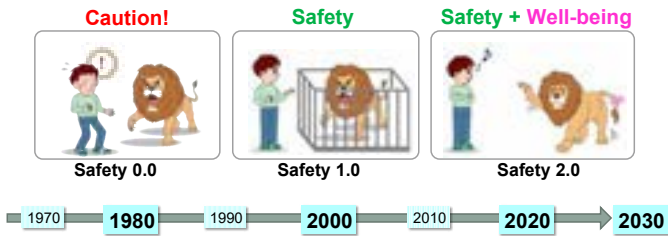


GISHW @EXPO2025	Technical Tours	Party	High-level Summit	World Assembly	Standard- ization Forum	Mukaidono Safety Award	Finepubble Well-being	Int'l Symposium	ILO Youth Congress	Festival	Exhibition	Baton to Riyadh	Osaka Declaration	Messages
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Well-being Construction Technology Exhibition

A wide range of cutting-edge technologies, products, and solutions were showcased to promote and realize the safety, security, and well-being of workers at construction sites, as well as initiatives such as i-Construction, which aims to improve safety in the workplace and enhance productivity in construction environments.



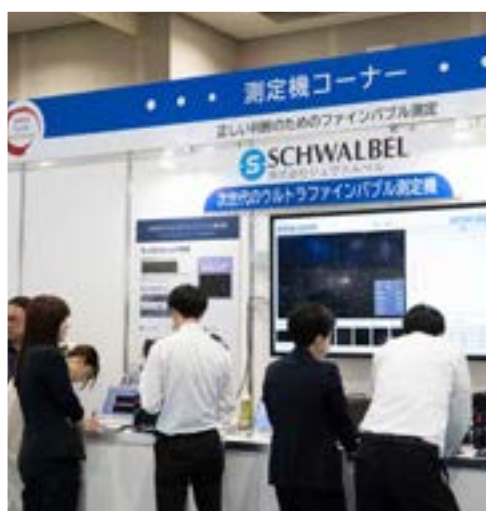
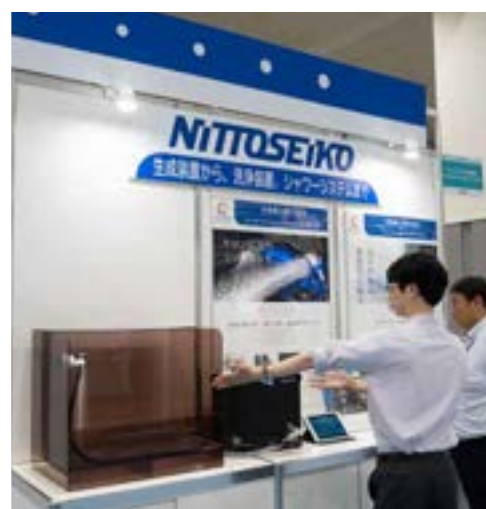


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Well-being Fine Bubble Industry Exhibition

Fine bubble technology, standardized under ISO international norms, is expected to see expanded use across diverse fields such as cleaning, sterilization, anti-fouling, agriculture, healthcare, and beauty. The exhibition showcased new application cases and explored the potential of this technology in industrial and everyday sectors to enhance people's well-being.





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The Baton Handover: From Osaka to Riyadh

On July 18, 2025, the High-level Summit of GISHW2025 concluded with a symbolic Baton Handover to Riyadh, host of EXPO2030. In this moment, Dr. Toshihiro Fujita, Chair of the GISHW Executive Committee, handed over the nomination document to His Excellency Eng. Majed Al-Fuwaiz, Secretary-General of NCOSH, signifying Riyadh's role in carrying the initiative forward while ensuring continuity of GISHW's guiding vision.

The ceremony was enriched by cultural performances that underscored partnership and shared purpose. A spirited Saudi dance celebrated Riyadh's future role, while the Inochi Forum presented a moving performance by famed singer Masahiko Hashimoto, whose heartfelt rendition of "INOCHI (Life)" echoed through the hall, deeply touching the audience.

Together, these moments affirmed that the baton represents not only continuity but also unity — a shared commitment to advancing safety, health, and well-being worldwide toward EXPO2030 and beyond.





Al-Khubaiti, traditional Saudi Arabian Sword Dance



The powerful and mesmerizing Saudi Arabian Sword Dance captivated the entire audience with its exotic elegance and rhythmic precision!



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International Symposium Session:
Advancing Occupational Safety,
Health, and Well-being in Saudi
Arabia—Leadership, Innovation,
and Vision 2030, scheduled for
July 19, 2025, at the GISHW Main
Stage, INTEX Osaka



The magnificent Saudi Arabia booth at the Intex Osaka Exhibition (July 16–19, 2025) captivated visitors with its cutting-edge OSHW implementations.



His Excellency Eng. Majed I. Alfuwaiz was honored with the Distinguished Achievement Award during the 10th Mukaidono Safety Award ceremony.

Delegates from the Kingdom of Saudi Arabia toured the Exhibition site and observed the latest OSHW technologies with great interest.



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His Excellency Eng. Majed I. Alfuwaiz Secretary-General, National Council for Occupational Safety and Health (NCOSH)



National Council for
Occupational Safety & Health



NCOSH's participation in the Global Initiative for Safety, Health, and Well-being (GISHW) 2025 marked a significant new chapter in Saudi Arabia's commitment to advancing safe, healthy, and sustainable workplaces worldwide. Held in Osaka under the theme "Safety, Health, and Well-being for All," the initiative brought together global leaders, institutions, and innovators united by a shared conviction: that protecting people is the cornerstone of human progress.

For NCOSH, this conviction is embedded in Saudi Arabia's Vision 2030, which places occupational safety and health at the heart of inclusive and sustainable development. Since its establishment in 2022, the Council has worked to translate this vision into tangible results: strengthening regulations, developing human capital through training and qualification, enhancing institutional capacities and exploring avenues for co-operation.

During GISHW 2025, NCOSH highlighted the Kingdom's commitment to advancing safe and healthy workplaces. Through its participation in the exhibition at INTEX Osaka and the High-Level International Symposium on Advancing Occupational Safety, Health, and Well-being: The Kingdom of Saudi Arabia — Leadership, Innovation, and Vision 2030, the Council emphasized cooperation, innovation, and forward-looking engagement within the global OSH community.

In recognition of these efforts, NCOSH received the Mukaidono Global Safety Award 2025, one of the most distinguished international honors in occupational safety and health, awarded by the Institute for Global Safety Promotion (IGSAP). This accolade represents not only national achievement but also the Kingdom's expanding contribution to the global OSH community.





Equally significant was the baton handover invitation from GISHW to NCOSH, a moment symbolizing shared international responsibility to sustain momentum in advancing safety, health, and wellbeing worldwide.

Looking forward, NCOSH remains committed to expanding its international reach and knowledge exchange. The 8th Global Occupational Safety and Health Conference (GOSH 8) in 2026 will serve as a key platform to explore and deepen these cooperative avenues. In parallel, NCOSH is in the process of approving its Strategy 2026–2030, which will provide a comprehensive roadmap for enhancing talents, promoting international cooperation in occupational safety and health, and align with Saudi Vision 2030 and the global sustainability goals.

Reflecting on the success of GISHW 2025, I extend heartfelt appreciation to all of the international OSH & Well-being community for their engagement and commitment to safer, healthier, and sustainable workplaces for all. Together, we are shaping a future where every workplace is not only productive but also safe, healthy, and conducive to well-being.

Eng. Majed I. Alfuwaiz
Secretary-General
National Council for
Occupational Safety and Health
(NCOSH)
Kingdom of Saudi Arabia

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Mr. Yoshikazu Tanaka Director General, Osaka Convention & Tourism Bureau



Letting the Seeds Planted by GISHW Bloom in Osaka

The Osaka-Kansai Expo 2025 (hereafter, the 2025 Expo) concluded with great success. In particular, the fact that 158 countries and regions came together for the event carried immense significance, especially at a time when global division was deepening due to the COVID-19 pandemic, the war in Ukraine, and conflicts in the Middle East. With the theme “Designing Future Society for Our Lives,” the 2025 Expo called on the world to shift from division—a crisis threatening life itself—to cooperation and coexistence that values life. The sight of national pavilions, each with its own unique design, gathered beneath the iconic 2-kilometer-long wooden Ring Roof—the world’s largest wooden structure—was a powerful visualization of a hopeful future where “diversity is united as one.”

In this context, the activities of GISHW, which aim to prevent tragic accidents and deaths in the workplaces where people spend much of their time, can truly be described as efforts to save lives and realize a better future. I became convinced that GISHW was not only fitting for the 2025 Expo but should be nurtured through it and carried forward as one of its lasting legacies for future generations. I would also like to emphasize that one of the key concepts of the 2025 Expo was “co-creation.” This represents the idea of building a brighter future for humanity by bringing together the wisdom of people from all over the world. In this sense, GISHW was, quite literally, the result of “co-creation,” brought to life by the voluntary collaboration of experts worldwide. I am confident that it was among the most truly international examples of co-creation showcased at the Expo.

I am excited about the news of the establishment of the GISHW Consortium in the University of Osaka. It will work as a powerful hub—an engine—of collaboration between industry, government, and academia, with strong emphasis on international standardization activities of new technologies such as AI. MICE will engage itself in this momentum and looks forward to welcoming participants from the 68 countries and regions that took part in GISHW2025 at Expo 2025—or even more—in congresses and exhibitions here in Osaka, for the happiness of 8 billion people on this planet Earth.

The Osaka Convention & Tourism Bureau hopes to see the seeds planted by GISHW blossom in Osaka as a legacy of the 2025 Expo. Concretely, exhibitions by The Nikkan Kogyo Shimbun and Messe Düsseldorf, both initiated through GISHW, will continue to be held in Osaka, and we will continue providing our support. We also plan to attract and develop various other MICE-related events. Moreover, with initiatives already set to develop at the University of Osaka, we intend to work closely with the university to further advance these efforts. We also expect the Osaka Prefectural Government to increase its involvement in these MICE activities going forward. Through these combined efforts, we aim to develop Osaka into a global model city for well-being.

Finally, many participants from around the world enjoyed their time in Osaka during GISHW. I sincerely hope that, in the future, you will choose Osaka as the host city for events and conferences held by your respective organizations. Together with the friends we met through GISHW, let us continue working toward a bright future where every individual life is valued. I look forward to seeing you again!



Mr. Eiyo Hayashi Executive Officer, Nikkan Kogyo Shimbun



Nikkan Kogyo Shimbun warmly welcomes the establishment of the GISHW Consortium at the University of Osaka, which will serve as a powerful liaison and hub for collaboration among businesses, government, and academic research. We are committed to working as a GISHW member to successfully organize the biannual GISHW congress and exhibition.

In July 2025, GISHW successfully established an international network that transcends national and industry boundaries. We extend our sincere gratitude to all those who participated in GISHW.

Since 2023, Nikkan Kogyo Shimbun has been hosting the Future Manufacturing International EXPO, a collaborative event aligned with the Osaka-Kansai Expo, and has actively promoted GISHW's activities in conjunction with it.

In 2025, the Japanese edition of A+A, titled "Workplace Environment Exhibition," was held under the sponsorship of Messe Düsseldorf Japan, enabling the integration of international events and conferences.

Starting in January 2025, Nikkan Kogyo Shimbun launched a special feature series titled "Safety, Health, and Well-being for Working People," which has been published 16 times by November. By covering initiatives from manufacturing and construction industries, as well as international efforts, the series has received strong responses from readers. As AI and robotics continue to transform the nature of work, we will keep sharing diverse industrial insights that contribute to realizing well-being.

The upcoming GISHW event will take place in December 2026 in Osaka as "RoboNext"—a new specialized robotics exhibition organized by the Japan Robot Association and Nikkan Kogyo Shimbun—held for the first time in Osaka. This congress and exhibition will focus on safety, health, and well-being, showcasing AI and robotics technologies, best practices, and policies.

To achieve the GISHW vision of a society centered on safety, health, and well-being, we will continue to promote global collaboration among industry, government, and academia.



Mr. Lars Wismer Regional Head Asia, Messe Düsseldorf for Asia



Dear partners, colleagues, and friends,

The first Global Initiative on Safety, Health and Wellbeing (GISHW) at Expo 2025 marks an inspiring milestone in raising global awareness for safety, health, and sustainability in the world of work. Supported by A+A, this inaugural event provided a valuable platform for dialogue and exchange — bringing together professionals and organizations dedicated to advancing wellbeing and progress across industries and borders.

It has been a true pleasure to witness how this initiative has sparked meaningful conversations, inspired innovative ideas, and created new momentum for issues that affect people and societies worldwide. The passion and dedication of everyone involved reflect a shared belief in progress and in putting human wellbeing at the center of our efforts.

The Expo 2025 theme, "Designing Future Society for Our Lives," captured the essence of this spirit — collaboration, creativity, and the courage to explore new perspectives. By connecting with people, sharing expertise, and learning from one another, we laid the foundation for lasting, positive change.

I would like to express my sincere gratitude for the inspiring exchange and the shared vision that have made this initiative so special. It has been an honor to witness the energy and enthusiasm behind the first GISHW, and I am confident that its spirit will continue to inspire meaningful dialogue and innovation.

Thank you for this remarkable experience and for our shared commitment to building a safer, healthier, and better future.

Mr. Hiroshi Asahi President, Japanese Standards Association (JSA)



Under the support of the Ministry of Economy, Trade and Industry, the Japanese Standards Association (JSA) co-hosted an international standardization event with GISHW on July 16–17, 2025, at the Osaka-Kansai Expo venue. The theme was: “Designing Future Society for Our Lives – Safety, Health, Well-being, and Standardization.”

On July 16, the International Standardization Forum began with opening remarks by Mr. Nobuhiro Endo, President, Japanese Industrial Standards Committee (JISC), Japan, followed by keynote speeches from Dr. Sung Hwan Cho, ISO President and Mr. Jo Cops, IEC President. This rare opportunity drew an audience of approximately 300 people—exceeding expectations.

Following the keynote addresses, three panel discussions were held featuring 18 experts from Japan and abroad.

Part 1 focused on achieving collaborative safety through AI and robotics, discussed from the perspectives of technology, on-site implementation, and management. The importance of a holistic approach to standardization—including safe use of cutting-edge technologies, management strategies, and human resources—was reaffirmed.

Part 2, titled “Well-being and Standardization,” emphasized the role of international standards in enabling all people, including the elderly, to lead fulfilling lives.

As a key outcome of the forum, the Declaration on Standardization for Safety, Health, and Well-being was proposed and adopted.

On the following day, July 17, the declaration was officially announced, expressing a strong commitment to contributing to a safe and secure society through international standardization. JSA is determined to use this event as a springboard to further promote standardization activities aimed at realizing safety, health, and well-being for all.

Mr. Shinichi Takasaki Former Director, ILO Japan Office



The International Labour Organization (ILO) participated in GISHW2025 and hosted a public pitch contest on July 17, 2025, at the Osaka-Kansai Expo, where students presented proposals on creating safe and healthy workplaces.

This initiative was inspired by the resolution adopted at the 110th International Labour Conference in 2022, which included a safe and healthy working environment as part of the ILO’s fundamental principles and rights at work. The contest aimed to raise awareness about occupational safety and health risks that disproportionately affect young people, as well as to promote understanding of workers’ rights, decent work, and the concept of “business and human rights.”

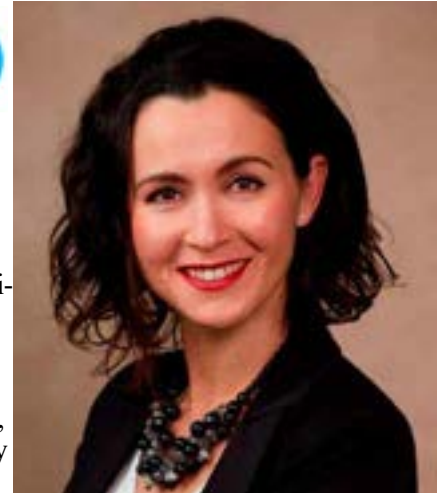
Eight teams from universities in Japan and abroad gave unique presentations, incorporating cutting-edge technologies such as smartphone apps and robots, and addressing issues faced by migrant workers and motorcycle delivery personnel. Their proposals received enthusiastic applause from the audience.

As workplaces today face challenges such as digital transformation (DX), climate change, and demographic shifts, it is crucial to listen to and incorporate the perspectives of younger generations to discover innovative solutions. GISHW and IGSAP will continue to collaborate with international organizations like the ILO to foster solidarity and cooperation with youth.

Shinichi Takasaki

Vice President of GISHW Executive Committee / Director of IGSAP / Former Director of ILO Japan Office
Representative Director of Japan International Human Rights Advocacy Center (JIHRAC)

Ms. Marijana Zivkovic Mtegha Strategic Engagement Manager, IOSH



The “Days on Safety, Health and Well-being for All” at Expo 2025 Osaka will be remembered as a landmark moment for our global community. For the first time at a World Expo, occupational safety, health and well-being stood at the centre of international dialogue on the future of societies. These four days brought together a truly diverse constellation of organisations and professionals united by a shared purpose: to make safe, healthy and dignified work a universal reality.

The launch of the World Assembly of Occupational Safety, Health and Well-being Professionals and Stakeholders and the adoption of its Founding Declaration were defining outcomes of this collaboration. They represent the collective will to connect across regions, sectors and disciplines, and to build upon and support the strong foundations established by the ILO, ISSA, the Vision Zero movement, and the tireless efforts of many others.

As we look to the years ahead, our task is to keep this momentum alive and translate our commitments into actions. The Assembly’s first 2030 Roadmap will guide our shared journey, translating the insights from Osaka’s eight thematic workshops into tangible progress. Above all, it will help us continue to learn from each other, foster innovation, and support those regions and workers most in need.

The Expo in Osaka reminded us that collaboration is our greatest strength. By continuing to listen, align and act together, we can help shape safer, healthier and more resilient societies for generations to come.

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Mr. Hans-Horst Konkolewsky President, FiORP



It has been a privilege to accompany the Global Initiative for Safety, Health and Well-being (GISHW) on its inspiring journey since the Vision Zero Summit Japan 2022. What began as a bold idea has matured into a global alliance of leading international OSH organisations united by a single ambition – Safety, Health and Well-being for All.

Working with the Dr Fujita and his dedicated team on the preparation and implementation of the first-ever OSH event at a World Expo has been both a pleasure and a historic milestone. The GISHW Days at Expo 2025 Osaka offered a unique overview of the new and emerging challenges in a rapidly changing world of work – from digitalisation and climate change to psychosocial risks and demographic shifts – while also presenting concrete pathways toward sustainable, human-centred solutions

A clear message resonated across all sessions and summits: building socially sustainable business cultures is indispensable. Safety, health and well-being must be embedded into leadership, strategy and everyday practice, addressing both physical and mental health in line with the Vision Zero mind-set.

Equally striking was the demonstration of how technological innovation – especially digitalisation, AI and robotics – will be instrumental in taking prevention to the next level, enabling smarter, safer and more inclusive workplaces worldwide.

As organiser of the International Symposium and High-Level Summit, I wish to thank all partners for their outstanding contributions and commitment. I particularly acknowledge our Chairperson and fellow Vice-Chairs for their kind collaboration, and express special appreciation to Eng. Alfuwaiz, Secretary-General of NCOSH, for kindly agreeing to host the next GISHW Days at Expo 2030 Riyadh – a fitting continuation of our shared journey toward a world where every worker can thrive in safety, health and well-being.



Dr. Takao Onoye Executive Vice President, The University of Osaka



The University of Osaka has a long tradition of building strong relationships with universities around the world. Looking ahead, we are committed to even deepening our engagement with society and expanding global collaboration with so many international institutions of the GISHW family.

The GISHW Consortium within the University of Osaka will serve as a dynamic hub for partnerships—fostering diverse collaborations, driving joint research and innovation, supporting start-ups, and advancing international standardization and certification as key tools for growth. Our ultimate goal is to contribute to the safety, health, and well-being of everyone on the planet.

We look forward to creating strong connections and working together to advance global engagement and build a better future for all.



Dr. Shun'ichi Kuroda, Director, SANKEN (The Institute of Scientific and Industrial Research), The University of Osaka



The University of Osaka, together with SANKEN, is proud to be part of the GISHW Consortium, with the Secretariat office located at RAIS (The University of Osaka Research Association of Industry and Science). This important role reflects our strong commitment to advancing global collaboration and innovation in the fields of safety, health, and well-being.

We are dedicated to working closely with national and international partners across academia, industry, technical and scientific research institutions, and international standardization bodies. By strengthening these connections, we aim to create a dynamic platform for knowledge exchange, joint research, and practical solutions that address critical challenges worldwide.

Together, through the GISHW Consortium, we seek to accelerate efforts toward ensuring safety, health, and well-being for all 8 billion people on the planet, building a future that is safer, healthier, and more sustainable for generations to come.



"They Are the Workers"



"Baton From Osaka to Riyadh"



GISHW 2025 booklet production team (alphabetical order):

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Sumiko Kubo (IDEC)

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