VISION ZERO

Strategy & Implementation – Together for Life
Volume 2

VISION ZERO PRACTICE

VISION ZERO
Safety.Health.Wellbeing.

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Contents

Vision Zero – Together for Life
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Editorial

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Pontificia Universidad Catolica de Chile

In 1675 Isaac Newton made the statement: "If I have seen further it is by standing on the shoulders of Giants".

Vision Zero (VZ) as well as Newton "has been able to see / go further, by standing on the shoulders of Giants (Dupont – 1802; – Sweden Road Safety -1990)". However, since its global launch in 2017 VZ story of success is the result of many believers (VZlievers) that have contribute with their expertise and initiatives to transform VZ into a powerful and inspirational journey towards ZERO HARM.

Psychology states that beliefs drive feelings, behaviours, thoughts and ACTION. A practical demonstration of that statement were the presentations delivered during the A+A International VISION ZERO Days of 2023. In those two days 23 professionals from different countries and organizations gather in Vienna to share their experiences, good practices, innovations and ideas as to how to continue to disseminate VZ. Their work was reflects the flexibility of VZ and its ability to adapt its message to the different economic activities, companies size and to areas beyond Occupational Safety and Health such as Cancer prevention and protection of the Environment.

Jan Hegewald´s presentation highlighted the importance of planning scenarios and introduced the audience to a model (Cone of possibilities) to support planning. He also made reference to the importance of Attitude and Innovation in the field of Safety.

Helmut Ehnes gave a broader look at our world in crisis and remind everyone on the economic value of prevention (ROP 2,2) and the need to go Beyond compliance, working together, not silos and in Collaboration. He also presented a model of steps towards Company and Country implementation of VZ.

Dietmar Elsler presented the EU Strategic framework and it´s three pillar: Anticipate – Manage – Prepare, with a VZ perspective and also some examples of Best practices.

Professor Dr Christof von Kalle's presentation showed us the power of VZ in other fields (Cancer Prevention and Road Safety) and success stories from Norway and Finland in Road Safety. He described how new technologies and strategies in cancer detection could prevent deaths from cancer.

Sophie Bense´s presentation highlighted how initiatives like UN Global Compact and SDG assign a role to business and how Action and Advocacy; Connection and Learning could make the wold move Forward Faster towards achieving the goals of SDG.

Dr Thomas Lautsch and Dirk Schulze´s work presented their vision of Health and Safety as a long term objective "not only come home healthy every day, also to retire healthy" and the importance of focusing no only on occupational health but also in promoting non occupational health, and involving contractors in these initiatives. VZ and 7 Golden Rules are a powerful backbone for their vision of a Positive culture of failure, respect and assistance, leadership, responsibility.

Dr. Klaus Schäfer presented an analysis of Fatal and serious accidents in Trade and Logistics and how to prevent them, highlighting the importance of gathering data, analyse, inform all stakeholders of the results.

Lorenz Huber delivered a presentation on LoTo – as a procedure to control critical risks and the legal bases in different countries and in the EU for its implementation. He also commented on different methods and tools for LoTo and its role in preventing fatal cases.

Axel Vogelsang's presentation on Zero explosion risk in oxyfuel cutting and welding focused on how technical innovation for safer equipment can contribute to risk control.

Christian Schumacher presented VZ as a tool to prevent and control environmental risks, with 12 steps base on VZ–7 GR.

Angela Janowitz´s work described overlaps, limitations, synergies of Standardization and VZ and described Standardized methods for risk assessment using ISO 45001 as an example. She highlighted some shortcomings like different definitions in different countries, statistical distortion in

SMEs and under reporting. Some of her recommendations based on the experience of the Kommission Arbeitsschulz un Normung (KAN) were t focus on evaluable requirements for safe machines, work equipment, workplaces; Involve stakeholders and work with not versus VZ.

Sigrid Roth described in her presentation the VZ Guidelines for Global Supply Chains and their scope beyond Health and Safety to create SHW Plus as a tool that included 6 fundamental principles and rights at work. She presented a 5 steps implementation and continuous improvement cycle. The guidelines were launched at World Congress 2023 in Australia.

Pernille Thau presented her work on VZ Guideline on wellbeing and a method to evaluate companies on wellbeing through a Maturity Scale that allowed not only a diagnosis but also a focus on gaps in perception between managers – workers.

Pete Kines´s presentation on Leading indicators Guidelines as a change of paradigm from the classic reactive indicators to indicators that are Proactive – Preventive – Predictive and designed to supplement lagging indicators, providing a wider picture of occupational health and safety within an organization. He presented evidence and cases of the benefits of using leading indicators and described the 14 indicators and 3 options of grading contained in the guidelines.

Michael Figgel and Stephan Köchling presented their company´s 5 elements of Mission Zero (Leadership, Organization, Process safety, Engagement, Competence) and offered a description of Actions at each element and their Training Workshop and Web graph of 5 elements and 16 points used to assess progress. The PPT can be downloaded here.

Michelle Lebert presented her work on a Safety value index initiative based on 5 indexes: Participation; Management commitment; Training; Health and Safety; Performance and discussed relevant issues of the project such as practicality, collection methods, suitability for benchmark.

Lars Hoffmann and Theresa JoeriBen´s presentation on the work of Offensive Mittelstand on how to assist and motivate SME / Family owned businesses on OHS describes the role of associations and the benefits of complying based on the use of Simple documents to advance in managing occupational safety and health.

Magdalena Wachnicka-Witzke described the role of organizations as partners of VZ and presented her experience in Agriculture and OHS highlighting the positive results (accidents down 15%) obtained by this initiative and the importance of involving stakeholders and students.

Annick Sunnen presented the journey of VZ in the Accident Insurance Association. In 2016 the initiative was launch in Luxembourg with the participation of government, trade unions, insurance companies and employers, within the framework of sustainable development and social responsibility. A National Strategy based on 7 GR was launched in 2022 with government support 2022. Based on the positive results (Decrease in national frequency rate by 20%) a new strategy 2023–2030 was presented, aim at a reduction of frequency rate of accidents, targeting high risk sectors, and reduction of serious and fatal accidents.

Marie Diallo´s presentation on the role of Social Security Fund of Senegal and their Promotion activities involving students are aimed at Control of risks– training – promotion – information /awareness, using VZ as a new prevention strategy.

Alex Morales delivered a presentation on VZ in South America highlighting the role of Sponsor Companies – Government – Professional Bodies / Entities as key elements of success for VZ implementation. He presented the work of the Chilean Chamber of Construction with VZ and 7 GR as a strategy to control fatal accidents in construction.

Dr Nadja Schilling‘s presentation focused on VZ in transportation and the risk of work with commercial vehicles (responsible for 64% of fatal accidents in BG Verkehr). Data analysis highlighted that Road haulage was the main sector involved and that work on Loading platforms was main risk. A Prevention strategy based on Technical; Organizational and Personal measures was described as a mean to achieve Zero falls from trucks.

Tommi Alanko presented the work of the Finnish Vision Zero Forum. Since 2003 VZ Forum has focused on activities to Promote, Share, Produce, Grow VZ as a Vision, Strategy, Goal, Way of Thinking, and Possibility. Their work has evolved from a Zero accident focus to Vision Zero, involving sickness, mental health, accidents, harmful exposure, and awareness. They have achieved positive results and lower accident rates. Their strategy is based on disseminating materials, organizing events, training, informing, benchmarking and assessment. In their way forward they visualize a stronger cooperation between National Forums.

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All presentations reviewed have common principles such as COLLABORATION with professional rganizations and Governments Agencies. They also highlight the ADAPTABILITY of VZ strategy and 7 Golden Rules to different contexts without abandoning its core principles. These are some of the key contributors to success of VZ.

The work presented by these authors is an open invitation to renew our commitment to VISION ZERO and to continue to disseminate VZ and explore new and innovative initiatives to "see further, standing on their shoulders".

Vision Zero: Bold Thinking for Occupational Safety and Health

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The successful implementation of VISION ZERO is more than a question of organization and rules, of products and services. Ultimately, it's about creating a firmly anchored cultural understanding of occupational safety and health among everyone involved. If such awareness is continually strengthened, it will have a lasting effect. This is a very practical example of sustainable entrepreneurial action in the company. It affects employees in the production facilities as well as the management, but also external partners such as the manufacturers and developers of the corresponding solutions. This article describes the strategies and perspectives that Dräger follows on the way to Vision Zero. It is an appeal for creative, agile and courageous thinking. For more safety in the workplace. For all of us.

At first glance, the path to achieving Vision Zero seems clear. After all, in Germany, for example, the statutory accident insurance (Deutsche Gesetzliche Unfallversicherung, DGUV) has been following this concept for a world without work accidents and work-related illnesses through comprehensive prevention work for more than 15 years. Vision Zerohas been established as a global strategy since 2017, including through the International Social Security Association (ISSA).

But a clear strategy or a straight path does not mean that the way to achieve the goal is easy. In the case of occupational safety and health this is due to the complexity of the topic and many different factors. This starts with the challenge of firmly anchoring simple actions in everyday life - for example using handrails in stairwells. And it extends to establishing a flexible organizational structure, which consciously prepares for developments that are difficult or impossible to predict.

Thinking in Scenarios instead of only following Tried and Tested Structures

Why do developments which are difficult or impossible to predict, represent such a big challenge for all of us and for achieving the goals of Vision Zero – Safety, Health, Wellbeing? The challenge reflects the fact that the world is changing more dynamically today than in previous decades, that it is becoming more complex and more agile. This megatrend influences business models, supply chains – and the daily work of entire workforces as well as every single individual.

At this point we should once again become aware of how we normally work: There is an organizational framework structure made up of, among other things, timelines and specifications,

business plans and agreements on how to achieve goals. And yes, this structure usually works well in times that we would define as normal. This is demonstrated not least by our individual and collective memories of how well our methods work. This is understandable, because these memories help to efficiently control our actions within the coordinate system described by repeating successful patterns.

But what happens when the anchor points shift in the coordinate system of a business plan, for example, or in the economic activities of a company or an entire branch? Then decision-makers can quickly doubt themselves and their abilities if they are completely focused on acting within the given structure. That‘s exactly why it‘s so important to always keep in mind the fact that, no matter how structured we are, we cannot predict the specific future - that is, unforeseen developments can occur at any time.

To deal with this realization, it helps to think in scenarios. Because anyone who imagines the possible future in such complex and dynamic sequences of actions can better think about unexpected influences. To always analyse possible future risks based on established routines is, in comparison, considerably more static.

Raising Awareness for the “Cone of Possibility” The influence of supply chains

To convert this knowledge in the actions of individuals and entire organizations, thinking in terms of the “Cone of Possibilities” is extremely helpful. This fascinating thought model describes the increasing diversity of possible futures the further we look into the future. It was initially developed under the name “Cone of Plausibility” by Charles Taylor in 1990 (“Creating Strategic Visions”). Among others, Clement Bezold and Trevor Hancock in 1994 (“Possible Futures, Preferable

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Futures") and Joseph Voros in 2003 ("A Generic Foresight Process Framework") further developed it. This tool for forecasting, future research and innovation processes makes it clear that the future is not linear and that it can differ very significantly from our individual or collective projection of future events. The corresponding categories range from probable, plausible, possible, and desirable to absurd.[1]

Humans tend to ignore possible events mentally, the more they fall in the category of absurd. This leads to us not preparing for theoretically imaginable but seemingly absurd scenarios. Nassim Nicholas Taleb described this phenomenon in 2001 as the black swan theory. But in fact, future events can fall into all of the above-mentioned categories, including the absurd – like the black swans, whose existence was considered absurd in Europe until they were discovered in Australia in 1697! Or in short – things sometimes turn out completely differently in the future than expected.

We can all visualize examples of such deviations from our vision of the future, even for a period of only a few years, through current developments: For example, who would have foreseen the global crisis in the supply of electronic components because of the COVID-19 pandemic? The dramatic escalation of international conflicts and its economic effects were also not anticipated

Transferring Insights to Vision Zero

What can be derived from the knowledge and insights described above for the topic of occupational safety and health? Basically, we should always remember that there is no single and unchangeable path to Vision Zero. Because how you work without accidents is a question of culture. Only it can bring about a lasting change in people's behaviour so that they can work without accidents.

This includes setting off and continuously orienting yourself towards the goal. So, the path to Vision Zero is a journey. And on this journey, you must act courageously, you have to be open to new things. If a cultural understanding develops that you always take care of yourself and of others, then we are all on the right path. One stage of this journey can, for example, be the intrinsic understanding of how to use the handrail in the stairwell – for employees in production as well as for top managers.

Occupational safety and health requires authenticity at all levels and in all areas. We achieve this by everyone personally living the Vision Zero approach. And no one should underestimate the potential that comes from even small actions like the example of using the handrail. A famous example of this is the return of grey wolves to the Yellowstone National Park in the USA in the mid-1990s. This seemingly small step towards a better ecological balance in the world-famous nature reserve had a long-term impact on the entire ecosystem by a cascade of further developments. In the end, even the flow of the rivers has come closer to its origins, with positive effects on the water balance of the whole protected area. Success stories like the one about the wolves who changed the river can also be told in occupational safety and health: when the individual's attention is on ensuring that others and themselves act safely.

Future needs Attitude

Occupational safety and health is a goal that users and manufacturers can only achieve together. It is therefore necessary that the culture at Dräger as a supplier of products and services is geared towards a dynamic time with an open future.

Sometimes that means we want to go to the moon for Vision Zero. No, not personally and not actually. But metaphorically nevertheless! This is because a world-famous example of courageous and future-oriented action is US President John F. Kennedy's appeal for a manned moon mission. In 1961 he addressed his goal to the nation. And he said in a speech at Rice University on September 12, 1962: "We choose to go to the moon. We choose to go to the moon in this decade and do the other things, not because they are easy, but because they are hard, because that goal will serve to organize and measure the best of our energies and skills, because that challenge is one that we are willing to accept, one we are unwilling to postpone, and one which we intend to win".

The result? On July 20, 1969, two American astronauts became the first people to set foot on the moon. A bold project was successful. And Kennedy's „Moon Shot" had achieved its goal. Even if Vision Zero does not seem as far away as Earth's satellite, everyone involved must always think and act just as courageously to get closer to this goal. This is a question of attitude towards one's own actions and towards the future.

Trust your Crazy Ideas and Love What you Do

What can we learn from JFK and his vision of sending man to the moon in the early 1960s? At the time, the charismatic politician was open to accepting new and untested solutions. In a nutshell: He trusted what many contemporaries believed was a crazy idea and managed to get people excited about

1. https://thevoroscope.com/2017/02/24/the-futures-cone-use-and-history/

it. We need exactly such impulses to make processes and products different and to improve them through fundamental change.

You want to advance occupational safety and health and make Vision Zero to become reality? Then trust your crazy ideas! They can be major steps for the occupational safety and health and health and well-being of employees. For this strategy to work, a culture of openness is needed. It is important in several ways. Because looking openly to the future doesn't just mean being open to the "crazy" ideas described above. It also ensures that people and organizations are open to things developing differently than we imagine today. Where this attitude does not exist, a cultural change is needed. Yes, this requires an appropriate structure, especially for organizations such as commercial companies. But just as important as the processes is the appropriate attitude among the workforce.

Finally, two more factors are needed: love and persistence. Steve Jobs gave us the motto "Love what you do." Love, passion for a cause – this is the only way to achieve great things. But it also requires persistence, sometimes even to the point of self-exploitation. Love – needs passion, for a topic. Anyone who has these qualities as an individual or team can develop good, sustainable and innovative solutions for their customers and for the entire market.

From Theory to Practice

And how does this strategy actually work? It is not an easy goal to jointly develop the culture of safety in an organization and thereby increase agility and openness for the future. In a company, for example, many employees who rely on traditional structures may say "that's too far removed from what we do." Or they encounter new business models with statements like "we don't want to offer this service" and "we don't want to develop this product".

That's why the work of pioneers needs an environment that they can trust. An environment in which they can try out and experiment. There is a strong mental picture for this: If I place a ball (the pioneers) on an upside-down cup (the conventionally structured organization), the ball is in a fragile equilibrium: both its own movement and impacts against the cup can cause the ball to fall. However, if the cup is turned over (the company with a strong culture of trust), the ball can roll back and forth safely, but will always be caught by the cup.

Dräger INARA: Implementing the Vision Zero Journey towards the Vision Zero Culture

This article has so far shown how important unconventional, innovative thinking and the corresponding structures in a company are if we want to really exploit all the dimensions of the cone of possibilities. Let's make this understanding clear with a successful example from the world of Dräger:

More than six years ago, in 2018, Dräger had a „crazy" idea. The idea was to develop a completely new solution for the monitoring of critical works at industrial plants worldwide. That was our moon shot. The result is Dräger's new solution INARA, a digital safety guard. It provides planning security, can be adapted to current needs and can help compensate for staff shortages. INARA is more than a product. It is a holistic service offering to help people and companies worldwide to work safely. Dräger Safety sees this innovation as a sustainable contribution to the global Vision Zero campaign.

Dräger INARA: The core element of the INARA system is the Workplace-Box with a mounted camera and gas detection device connected to it. It sends all measurement and video data to the control center via a mobile router.

The Vision Zero success story – Working together to save lives

Author

Helmut Ehnes

Chair of the VISION ZERO Steering Committee

Key Facts

- This article examines the Vision Zero initiative in relation to the current crises people are facing
- Vision Zero tools are freely available for operational use, are all based on the "7 Golden Rules" and can be used worldwide
- 5 future focus areas describe the next phase of the International Social Security Association's (ISSA) prevention culture initiative, focussing primarily on the sustainable implementation of Vision Zero

During the World Congress on Safety and Health at Work in Singapore in 2017, the ISSA launched the Vision Zero initiative and the accompanying "7 Golden Rules". This was the start of a success story. One that focuses on leadership culture, humane work, social dialogue and sustainability in corporate culture.

For many people, a glance at the daily newspaper or their smartphone means being bombarded with crises. Man-made climate change has been caused by how we live – or want to live – and by how we work. There is war and violence very close to our European homes. Inflation and economic problems continue to challenge us. World hunger seems insurmountable. This all leads to dramatic refugee and migration movements. On top of that there are global health problems and pandemics to deal with. Then there are global working conditions that need to be addressed. Global working conditions also need to be addressed, as global supply chains mean that we can no longer ignore the conditions under which items are produced for us to buy as cheaply as possible in our own countries.

The Vision Zero story

So – isn't it a relief to read about a success story for a change? The Vision Zero strategy certainly deserves a positive headline. Vision Zero has come of age since the International Social Security Association (ISSA) presented the fledgling campaign at the World Congress on Safety and Health at Work in Singapore in 2017. Today, the global prevention strategy Vision Zero is more successful than ever. In today's fast-paced world with its constant stream of campaign slogans, who would have thought such a lifespan was possible? Who would have thought that the "7 Golden Rules" of Vision Zero would become widely known and understood around the world? Who would have thought that so many institutions would collaborate to develop the Vision Zero tools and that Vision Zero would be used to inform national and sector strategies? And who would have thought that more than 15,000 partners worldwide would lend their good name and commitment to Vision Zero?

Vision Zero – the path to a culture of prevention

Initially, Vision Zero focused exclusively on prevention in the workplace. It has since become clear that Vision Zero is even more effective if other fields of action are included, such as corporate environmental protection, road safety and public health. It's about moving away from traditional 'silo thinking' and reaching all the people in their different environments with a unified, simple language. Because ultimately, physical integrity is indivisible: ONE VISION ZERO. Vision Zero's core message is that accidents, injuries and occupational diseases have causes – so every accident and every disease can be prevented if the right measures are put in place at the right time.

Safety and health at work can no longer be the exclusive concern of experts and specialists. Instead, it needs to become part of the daily agenda for all entrepreneurs, managers and their employees.

It calls for a new way of thinking and a new way of looking at the issue. More than ever, ESG (Environment, Social and Governance) is being understood in the boardroom as a set of issues that increasingly determine a company's long-term success in the global competitive arena.

Vision Zero translates the world's laws, standards and regulations into a simple, understandable action plan that is compatible with national regulations around the world. Vision Zero embodies people's fundamental right to physical integrity. Everyone has the right to return home safe and healthy at the end of every working day.

Accidents and diseases are not random – they have causes. By identifying the causes in time, every accident and disease can be prevented. Vision Zero has three pillars: Safety – Health – Wellbeing.

Practical tools for the workplace

The vast majority of unsafe or health-threatening situations can be identified by not looking the other way. This is the primary responsibility of every executive board, manager and supervisor.

That's why 'Leadership' is at the top of the "7 Golden Rules".

The entire Vision Zero toolkit, which is now available in several languages, can be seen in the table.

With the groundwork laid and the toolkit well stocked, the next phase in the Vision Zero initiative is to support the sustained application of the strategy around the world. To this end, five primary fields of action have been identified as the main focus areas.

Future focus area 1: Implementing Vision Zero in the organization

Thanks to the wealth of experience gained in this area, we know that each company needs to follow its own path. This is because there are as many different starting points as there are different requirements for a culture-driven prevention approach. As a result, there is no 'one size fits all' solution, as some people may be hoping for. That said, it's worth the extra bit of effort because it results in a more sustainable implementation. Plus, having 'something of your own' counts more in the end. There is often a fear that introducing Vision Zero will mean that everything has to be rethought. This is not the case. On the contrary, Vision Zero should be seen as a new umbrella under which everything worth preserving can be successfully brought together.

The VISION ZERO Toolbox	
The VISION ZERO Website	https://visionzero.global/
VISION ZERO Guide for Employers and Managers: 7 Golden Rules – For Zero Accidents and Healthy Work	https://visionzero.global/sites/default/files/2017-12/2-Vision%20Zero%20Guide-Web.pdf
VISION ZERO Guide – 7 Golden Rules for Small Businesses	https://visionzero.global/sites/default/files/2020-10/EN-VZ-Guide%20for%20small%20enterprises_0.pdf
VISION ZERO Advice and Consulting	For more information please contact the ISSA Sections
VISION ZERO – Proactive Leading Indicators Guide	https://visionzero.global/guides
VISION ZERO Training for Managers and Coordinators	For more information please contact the ISSA Sections
VISION ZERO Guide – 7 Golden Rules to Protect the Environment and our Future	https://visionzero.global/sites/default/files/2023-08/2-VZ_Environment2022_0.pdf
VISION ZERO Guide to create a Healthy Work Environment and promote Wellbeing at Work	https://visionzero.global/sites/default/files/2023-08/2-VZ-Wellbeing_0.pdf
VISION ZERO Guide for Improving Safety, Health and Wellbeing in Workplaces along Global Supply Chains	Coming soon
VISION ZERO Guide for Labour Inspection	Coming soon

> **Safety and health at work can no longer be the exclusive concern of experts and specialists. Instead, it needs to become part of the daily agenda for all entrepreneurs, managers and their employees.**

For companies seeking external support, there is a twelve-point implementation process that provides guidance.

Implementation Process: 12 Steps to the VISION ZERO Strategy	
1	START: Create Commitment for VISION ZERO
2	KICK-OFF: Information and Motivation Workshops
3	INVENTORY: Use VISION ZERO Guide
4	STRATEGIC PLAN: Timeline-Stakeholders-Structure
5	DEFINE GOALS: Select Leading Indicators
6	DEFINE MEASURES: Define Activities
7	DETERMINE TARGETS: Control Implementation
8	GO PUBLIC: Event – Advertising – Communication
9	REALIZATION PHASE: Measure & Monitor
10	ANALYSIS: Target/Actual Comparison
11	RESULTS EVALUATION: Document & Communicate
12	UPDATE PHASE: Update Procedures & Strategy

Future focus area 2: Vision Zero at national level

The second field of action works on the premise that those affected have to become stakeholders if sustainability and acceptance are to be achieved. Finding local or sectoral partners to introduce the Vision Zero approach at national or industry sector level will prove beneficial. A stakeholder should take the initiative but without claiming exclusive rights to Vision Zero. Rather, all stakeholders should be able to find their place in this initiative. An open culture of collaboration ensures mutual acceptance and transforms participants from consumers into promoters.

In the end, everyone benefits from this.

There are already some good examples in different countries that are making Vision Zero a national strategy. Successful strategies are characterized by statements about the following questions:

- What is at the core of the initiative?
- What should the strategy be about – workplace prevention or a broader approach?
- Who will take the lead – who will be involved – how will the roles be distributed?
- What are the most specific targets to be achieved?
- What is the time frame?
- What concrete measures and activities are planned to achieve these targets?
- What implementation structures are available or need to be established?
- How will marketing and communications be carried out?
- How will success be measured and, if necessary, how will it be readjusted?

One very positive development supports the move to develop national strategies: In its new strategic framework for safety and health at work for the period 2021-2027, the European Commission strongly urges all Member States to consider the Vision Zero approach in their national policies. Consequently, the only recommendation is to develop national prevention strategies along global supply chains based on Vision Zero to gain better market access through better connectivity.

Future focus area 3: Overcoming silo thinking with Vision Zero

We all know it – The best thing to do first is check who is responsible. We think and act in silos. And, of course, the requirements, actions and approaches are completely different depending on the environment one is in.

Is this a promising road to take, if essentially we want the same thing – to guarantee people's fundamental right to physical and mental integrity? If we want to reach and influence our peers, wouldn't it be much better to use one language? Isn't everything connected?

The conclusion has to be: Yes, we need to bring together what belongs together. People cannot conduct themselves in a safe and healthy way some of the time, yet at other times ignore it completely. That's why OSH professionals need a more holistic perspective as well:

- Protect life and health at work.
- Include prevention with general health risks.
- Prevention also applies outside the workplace.
- A culture of prevention must also include the financial and business sectors.
- Why do we only start talking about safety and responsibility in the workplace?
- What about the school, education and training sectors?

Future focus area 4: Vision Zero as a matter for CEOs and management

It cannot be said often enough: Occupational safety, health and wellbeing is not primarily the responsibility of OSH professionals. It is management's responsibility. All those involved in OSH must therefore learn the language of corporate leaders.

Rather than being unnecessarily complex, the concepts should be made accessible to everyone through clear and simple language. Only then can people adopt them as their own. The arguments have been on the table for a long time:

- For some, legal certainty is important.
- Fewer accidents and illness mean less downtime and lower costs.
- They also mean better quality and a more motivated and creative workforce.
- Building a good image takes years – destroying it only takes a second.
- Attractive companies find skilled workers, even now.
- What's wrong with having happy, satisfied employees if they deliver better economic results?

So if prevention, safety, health and wellbeing are the responsibility of our managers, we have to ask ourselves what we are doing to ensure that they are also able to communicate with people in a way that motivates and values them. The answer is: not enough. Of course, some people do it naturally. And most of us have responsibilities – we just haven't learned how to fulfil them.

Hence the call to action: Talking about prevention culture in the workplace is too late. It's like locking the stable door after the horse has bolted.

It has to start in pre-schools, schools and all educational settings – be it vocational training or higher education. Vision Zero must become part of the curriculum and syllabus for all those who could have leadership responsibilities later in life – regardless of which discipline. This must be achieved politically. If not, this endeavour will fail.

Future focus area 5: Cooperation, not confrontation

The fifth future focus area revisits the topic of alliances. Many notable organizations, governments, institutions and also social partners have well-founded ideas and concepts. However, most of the time, they fight alone – always with the message that the issue at hand is the most important. Unfortunately, it has a limited impact. Why? Because although all these well-known organizations generate a flood of messages, tools, concepts and initiatives, the target groups are often identical. Is it really so impossible to join forces and work together instead of against each other?

While this may sound utopian, it's our duty to demand it, to reach out to each other and to make proposals. Let's make a start if no one else will! Preferably today! Because it's all about the bigger picture: about one world – one humanity – ONE VISION ZERO.

The Link to Vision Zero – EU Strategic Framework on Health and Safety at Work 2021–2027

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Introduction

The EU strategic framework on health and safety at work 2021–2027 promotes a "Vision Zero" approach to work-related deaths by improving data collection on accidents at work and occupational diseases, by strengthening enforcement and increasing awareness on reducing work-related deaths at company level, sharing good practices, and supporting increased training for labour inspectorates. Based on the EU strategic framework on OSH, the EU Advisory Committee on Safety and Health at Work encourages EU-OSHA to:

- Disseminate information on Vision Zero approaches, include Vision Zero in its campaigns and spread related tools and guidelines,
- Continue to improve EU data collections on occupational accidents and diseases, considering existing legislation and practices, high risk sectors,
- Raise awareness about the return on investments into OSH measures at all levels, and offer related guidelines and good,
- Encourage the Senior Labour Inspectors Committee (SLIC) as well as national labour inspections, to include Vision Zero approaches in their campaigns,
- Arrange fora for sharing best practices on Vision Zero approaches, in and between Member States as well as in a tripartite framework,
- Develop and promote EU guidelines on including occupational safety and health specifications in procurement procedures.

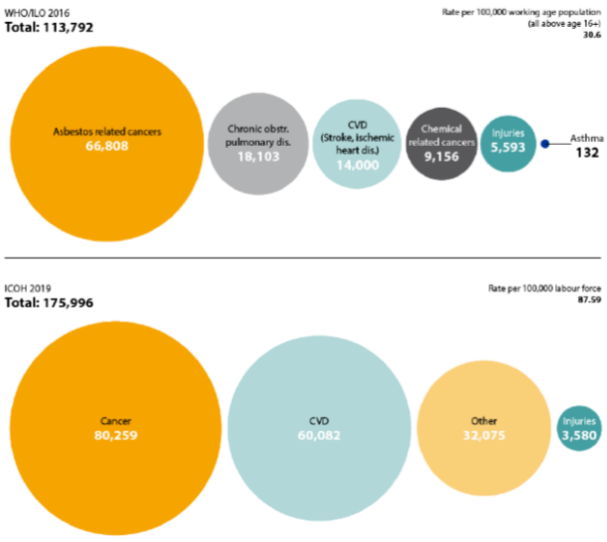
Following on the recommendations of the Advisory Committee, below two activities with cloth relations to the Vision Zero approach at EU-OSHA are described more in detail, first the OSH-Barometer Data Visualization Tool and second the Lift-OSH project on OSH in supply chains of the European construction and agri-food sector.

The OSH-Barometer Data Visualization Tool

To achieve the goal of zero occupational accidents and illnesses, reliable, timely and comparable data on occupational accidents and work-related health problems is a key requirement to assess OSH performance across EU Member States and draw evidence-based policy conclusions from such comparisons. EU-OSHA will continue to improve EU data collections on occupational accidents and diseases in its OSH Barometer data visualization tool.

Please see below in figure 1 as a recent example of statistics presented in a user-friendly way in the OSH Barometer the newest estimations of work-related fatalities by different causes. The estimation from ICOH includes generally more risk factors WHO/ILO statistics, therefore the ICOH numbers are considerably higher. However, regarding the impact of single cause, both studies deliver similar results, with occupational cancer being by far the highest risk factor in both studies.

Figure 1. *WHO/ILO and ICOH estimation on work-related fatalities*



The influence of supply chains

Nowadays, companies are increasingly dependent on national and international supply chains, as the public is becoming more and more aware of, not least due to the COVID-19 pandemic and most recently the Russian war against Ukraine.

The relationships between customers and suppliers largely determine the framework conditions and decision-making scope of companies, including health and safety at work. The strong competitive and price pressure often leads to poorer working conditions in the supply chain, the further away the suppliers are from the end customer. In recent years, many examples from developing countries have been reported in the media, such as the Rana Plaza accident (Bird et al., 2019) in the textile industry of Bangladesh. To address OSH concerns resulting from global supply chains the ILO established its Vision Zero Fund, launched by G7 and endorsed by G20.

This aligns well with the Vision Zero approach of the "EU strategic framework on health and safety at work 2021–2027 - Occupational safety and health in a changing world of work". We are also increasingly seeing examples from European countries, such as harvest workers in Spain and Italy, bogus self-employment in the German meat industry or many workers on construction sites across Europe who must work in precarious conditions. In response to this, various measures have been developed that either have a direct impact on the relationship between customers and suppliers, or increasingly measures that are based on national or international regulations.

The Lift-OSH Project of EU-OSHA

The EU-OSHA LIFT-OSH project (Leverage Instruments for Occupational Safety and Health) investigates the influence of supply chains on working conditions in construction and agriculture. It is carried out by an international research consortium led by Prof. Peter Hasle (University of Southern Denmark). In a first step, a comprehensive literature review of the empirical state of research on market-related factors influencing occupational safety in both sectors will be carried out (Walters et al.,2021).

In the further course of the LIFT-OSH project, more than 40 case studies from at least 7 different European countries have been created, which used 132 structured interviews and workplace analyzes to assess the concrete framework conditions of every customer-supplier relationship and their effects on prevention. A series of accompanying workshops with the most important European stakeholders (e.g. social partners, companies, supervisory authorities) ensures the practical feasibility of the results and identify best practices where the European countries involved can benefit from each other. The results of this study can be relevant both for internal occupational health and safety management with suppliers and for the development of overarching multi-stakeholder approaches.

Based on the supply chain management literature (Hasle et al. 2014), we distinguish between the following two direct influencing factors in customer-supplier relationships:

- Contractual influences: Various forms of contracting and formal reviews and pre-qualifications of suppliers and service providers, including an actual review of work processes.
- Relationship influences: Various forms of informal relationships between customers and suppliers aimed at increasing occupational health and safety qualifications and improving working conditions.
- Hybrid forms: Both influencing factors often appear in a hybrid form, with elements from both factors.

Going beyond this, there are indirect factors influencing supply chain governance that are exercised by external stakeholders, such as:

- National legislation and regulation on supply chains (e.g. in Germany „Act on Corporate Due Diligence to Avoid Human Rights Violations in Supply Chains");
- International legislation and regulation (e.g. EU directives, international standards, sustainability index);
- Labor and collective bargaining law (e.g. regulations against precarious working conditions);
- Public pressure (e.g. from the media, NGOs).

OSH in supply chains of the agri-food sector

In the EU, the supply chains in the agricultural and food sectors (agri-food) account for 5.5% of the gross domestic product and employ 23 million workers. The sector is dominated by a few large retail and food companies, but most businesses are relatively small, with an average of 16 employees.

> **In today's economy, where all countries have global business relations, a Vision Zero approach can be a key element to improve OSH throughout the global supply chains.**

Supermarket chains and major grocery brands face high reputational risk, which is a key motivation for their occupational health and safety activities. However, the focus for reputation is more on food safety, environmental and animal welfare aspects.

In this project, the literature study is supplemented by stakeholder interviews to identify further case studies and to use the assessments and experiences of the experts on the supply chains. Representatives from the trade union sector stated that it was difficult to get employee representatives interested in the issue of occupational safety in supply chains. Unions represent the interests of their members and verification of working conditions in the supply chain would mostly be left to the "CSR departments". Furthermore, the workers in the agri-food sector are often poorly organized and work under precarious conditions, the competitive and price pressure is enormous. However, new certificates could help in the food industry, which values good working conditions and could in this way persuade large retail chains to prefer to buy from such certified companies.

OSH in supply chains of the construction sector

The construction industry is one of the largest economic sectors in the EU, generating around 9% of the gross domestic product and employing 16 million people. As in the agri-food sector, a few multinational corporations dominate the sector, carrying out international infrastructure projects and other large contracts. However, most companies are very small and have an average of just 4 employees.

Construction companies must comply with a number of standards and regulations in the areas of quality, environment, climate and product safety, which led to the development of a new professional field in medium-sized and larger construction companies (Uhrenholdt-Madsen et al., 2019). This also includes the safety and health coordinators, who are responsible for safety and health protection on construction sites. The appointment of the Safety and Health Construction Coordinators (SHCC) according to the COUNCIL DIRECTIVE 92/57/EEC has been regulated since 1998 They are playing an increasingly important role in larger construction projects, but the European qualification profiles have not yet been harmonized with one another, which is a particular problem in large international projects.

Conclusions

In today's economy, where all countries have global business relations, a Vision Zero approach can be a key element to improve OSH throughout the global supply chains, thus contributing to achieve the SDGs on "Decent work and economic growth (8)" and "Good Health and Wellbeing (3)"

The construction and agri-food sectors are characterized by two different supply chains. On the one hand, similar tools are used in both industries, such as economic incentives, corporate social responsibility reporting and auditing, to manage the functionally fragmented and geographically distributed supply chains. On the other hand, there are sector-specific instruments such as safety passes on construction sites and quality labels in the food sector. Both sectors have in common a high level of employee mobility and many employees who work under precarious working conditions and, for the most part, have a migration background. In addition to the influence of state regulation and control in occupational safety, the focus is increasingly on the influence of the supply chains, which in turn are regulated by laws in some countries.
Further, EU-OSHA responds with the OSH Barometer Data

Visualization Tool to the requests of the European Commission and the EU members states for more accurate OSH data. A sound European Vision Zero approach must be evidence-based on reliable data for appropriate policy decision making.

Acknowledgements

The Lift-OSH project is carried out by an international research consortium led by Prof. Peter Hasle (University of Southern Denmark), funded by the European Agency for Safety and Health, Bilbao. Further publications are planned in 2024.

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A Public Health Initiative: Vision Zero – Together to Zero Cancer Deaths

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Human life is under constant threat from various lethal dangers. Small mistakes, such as a slight misstep on the road, steering a few centimetres into oncoming traffic, flipping the wrong switch at work, mixing the wrong substances, choosing an inappropriate dosage, or forgetting to lower the landing flaps as a pilot, can quickly lead to death and destruction. However, despite these potential hazards, we have achieved an incredibly high level of safety in almost all areas of life. So how did we get there?

The basis for safety in all areas is the implementation of Vision Zero concepts. This means that the security concept is initially based on a societal decision to no longer accept the usual number of fatalities in various areas. This is achieved quite easily when the resulting damage is visible, dramatic, bloody and loud. An exploding factory, a crashed aeroplane or accident victims in wrecked vehicles motivate society to work towards safe solutions and defence concepts. The goal is to avoid the same fate for everyone and their loved ones. Successful risk avoidance involves attacking step by step, simultaneously and independently, at all levels and in all trades. Furthermore, human error is correctly understood as a cause of danger in Vision Zero concepts: it is human and, therefore, unavoidable. This means that systems are not organised by demanding perfect human behaviour in faulty systems, but rather that fault tolerance and resilience are built into the systems step by step.

The Roots of Vision Zero

While there may not be fewer accidents on the roads, most people no longer die. Introduced safety measures such as railings, crash barriers, walls or technological developments such as computers or even ABS systems do their utmost to prevent people from unintentionally killing themselves or others. Some of these systems are available for free, while others are quite expensive, but the overall cost-effectiveness is always considered. In Germany, accident costs amount to over 30 billion euros per year, with just under 3,000 road deaths, which equates to over 10 million euros per road death (Federal Highway Research Institute 2020).

In 1811, the chemist Eleuthère Irénée du Pont (founder of today's chemical company DuPont) drew up the first safety rules for his production following a series of serious accidents at work. The motto "Every accident is avoidable" and the creation of an error-preventing working environment proved to be an effective driver and incentive for prevention. The principle of recording and evaluating all accidents and near-accidents as early and completely as possible still leads to better health and safety for employees today.

In order to achieve this, measures must be integral to the process by making the objective of "reducing avoidable sources of danger" the actual centre of the strategy, not just the execution and implementation of measures.

In industry and everyday technical life, such as work and transport, these successes are achieved in many stages, at regional, national, and European levels, in small steps that together achieve enormous progress. Consequently, Vision Zero concepts have only celebrated their greatest successes decades after their introduction due to measures that were either not even invented at the beginning, considered unfeasible, or far too expensive.

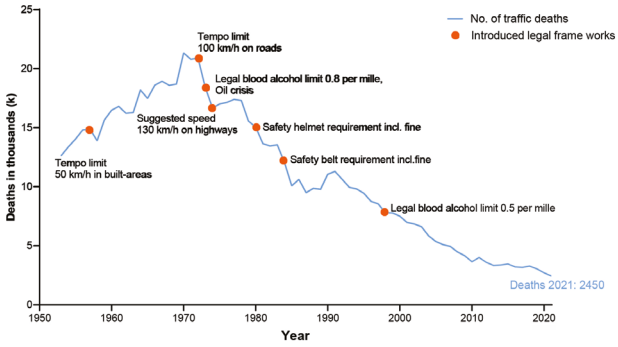
Aeroplanes hardly ever crash anymore, and being at work is statistically safer than staying at home or even in bed. This is because safety measures costing several thousand euros are installed in every vehicle today, and several million euros are even invested in every airliner and factory. Less reflective discussions easily confuse these ideas with prohibition concepts and attempt to discredit zero targets as unrealistic. However, a brief investigation reveals that these supposedly unrealisable "zero targets" have already been achieved in many areas of modern road safety (as well as in other areas).

Vision Zero: A Sustainable Strategy for Traffic Safety

In Scandinavia where Vision Zero concepts have been pursued since the 1970s, the accident rate has been reduced drastically while increasing the number of kilometres driven. Helsinki (Finland) and Oslo (Norway), which work with traffic management and traffic speed adjustment measures, recorded no pedestrian or cyclist fatalities in 2019 and 2020, respectively. Overall traffic fatalities were also reduced to almost zero (Helsinki 2019: 3 traffic fatalities, Oslo 2020: 1 traffic fatality).

In the 1970s, Germany adopted a Vision Zero strategy to reduce the rising road accident figures. Over the last 50 years, this strategy has proven to be a great success story. With every step, new measures were introduced, leading to this strategy's overall success (see Figure 1, Federal Statistical Office, Destatis).

Figure 1. *Development of road fatalities in Germany (1960-2021) (Numbers in thousands)*



Similarly, the aviation industry has adopted a zero-defect tolerance policy. The commercial aviation industry has achieved brilliant accident avoidance work, making air travel ten times less likely to cause an accident than being struck by lightning.

Vision Zero in Medicine

Vision Zero is a concept that aims to eliminate deaths and serious injuries, successfully implemented in traffic safety initiatives. Nevertheless, why don't we apply this principle to other areas, especially medicine? Currently, healthcare accepts unnecessary risks without questioning such as preventable death from cancer. However, early detection and prevention measures could prevent up to half of all common diseases. Expensive preventive measures would be cost-effective in the long run. To achieve this, we need research infrastructures focusing on early disease detection. This will help us deal more resiliently with „known knowns" - events that are often neglected despite their high probability of occurrence and expected impact.

So far, society is not doing enough, even regarding „known unknowns". For example, it often goes unnoticed if two family members fall ill with the same problem. This is because the knowledge about familial genetic diseases is still limited, and the information needs to be systematically collected and analysed. If doctors and scientists could use digital tools to analyse genetic information or even just medical histories and case histories, some diseases could be avoided altogether, and treatments could be improved. To collect patient data systematically and use it for research purposes, we need innovative structures and rules that enable data collection in everyday clinical practice. This would allow patients to provide their health-related data (with their consent) for research purposes. However, to make these structures sustainable and resilient, we need a system of checks and balances that includes a quality assurance body and uses strict control mechanisms to ensure that certain measures are taken before a crisis occurs.

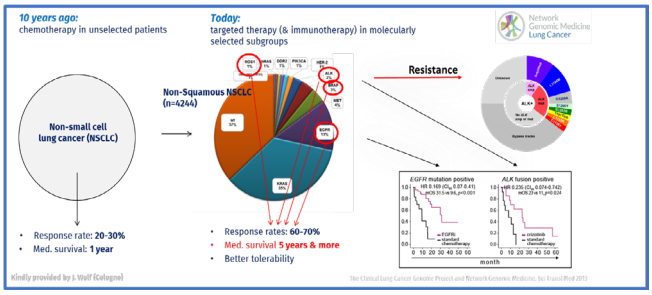
From Road Safety to Eliminating Cancer

The field of precision oncology has shown that secure and value-added collection, bundling, targeted analysis and data sharing can effectively fight cancer. The National Network for Genomic Medicine (nNGM) is a German network for molecular and personalised lung cancer diagnostics and therapy that is a result of a national cooperation between leading oncology centres, financial support from health insurance companies, and German Cancer Aid. Patients who participate

> **The Vision Zero initiative aims to reduce or eliminate cancer fatalities in oncology by integrating advanced preventive measures, early detection, and cutting-edge treatments.**

are registered, and their samples are centrally analysed. The detailed molecular diagnoses are recorded digitally, and individual therapy options and consequences are discussed on scientific boards. The results are transmitted digitally so that most patients can be treated locally according to the latest scientific findings or off-label recommendations.

Currently, more than 50% of all German lung cancer patients can already be offered the best possible diagnosis and personalised cancer therapy thanks to the structures of the nNGM. By recording all data in a central database and obtaining patients' consent for their data to be used for research purposes, new insights are continuously being gained, which drives further innovations in cancer therapy development. For instance, the nNGM demonstrated a significant survival benefit through targeted therapies compared to general chemotherapy treatments by collecting data via proof-of-concept.



Nationwide networks like the nNGM should make molecular diagnostics available to cancer patients throughout Germany in the future, enabling patient-oriented therapy optimisation. Cross-site exchange of research data is essential to adequately research individual genetic mutations and molecular subgroups of rare cancers, thereby improving treatment options. The pooling of data flows can also accelerate and advance cancer research from the laboratory to the patient's bedside to improve the well-being of cancer patients and their caregivers and promote patient- and family-centred oncological care. This approach promotes the democratisation of access to state-of-the-art diagnosis and treatment options that are increasingly becoming independent of the place of residence and no longer remain the exclusive preserve of patients close to university hospitals and centres of excellence.

The Vision Zero initiative aims to reduce or eliminate cancer fatalities in oncology by integrating advanced preventive measures, early detection, and cutting-edge treatments. This approach considers preventive healthcare and early detection as the cornerstone of its success. The initiative aims to lower the number of new cancer cases diagnosed each year by embracing prevention strategies like vaccination against cancer-causing viruses. Additionally, it seeks to enhance early detection through widespread screening programs, thereby improving survival rates. Its success relies on medical breakthroughs, societal mobilisation, and policy reform. Vision Zero calls for a collective effort to prioritise cancer prevention and care, like the responses to public health crises like the COVID-19 pandemic. The initiative challenges society to allocate resources towards preventive healthcare, ensuring that advancements in cancer treatment are accessible to all.

Conclusion

The Vision Zero approach in cancer care is a comprehensive strategy that aims to provide effective cancer treatment while emphasizing the importance of prevention and early detection. This approach acknowledges that fighting cancer is not only about discovering better treatments but also about changing our beliefs and attitudes regarding cancer prevention and early detection. The Vision Zero concept has the potential to make a significant impact on cancer care. By uniting stakeholders in the fight against cancer, this approach aims to create a world where cancer is no longer a devastating disease that claims lives prematurely. In conclusion, the Vision Zero approach is a powerful and inspiring way to provide cancer treatment, and it can potentially change the course of cancer care for the better.

The Importance of Leadership in Sensitive Work Environments

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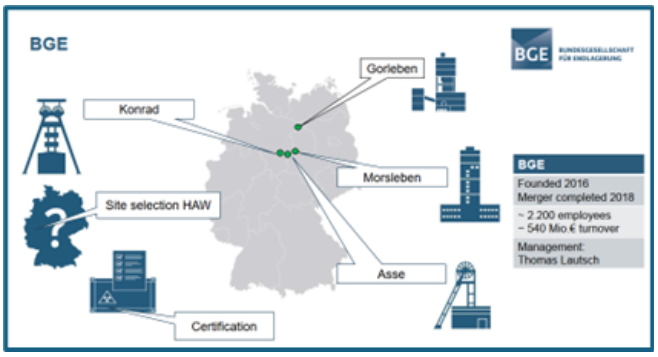
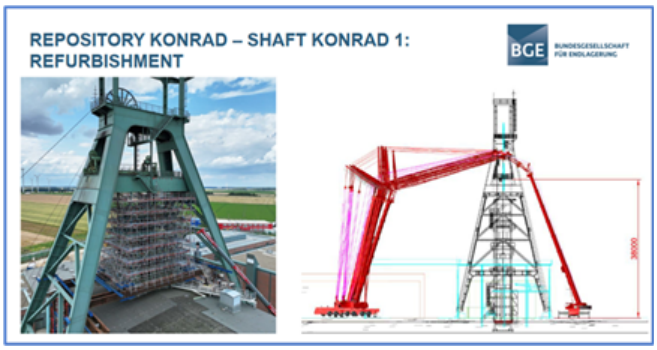
The Bundesgesellschaft für Endlagerung mbH (BGE) is the federal company for radioactive waste disposal in Germany. As well as being responsible for the final disposal of low- and intermediate-level radioactive waste, the BGE is searching for the site that offers the best possible safety for a million years for high-level radioactive waste in Germany in accordance with the requirements of the Repository Site Selection Act.

The BGE operates repository projects in particularly challenging environments. Our geological repositories are mines and therefore all dangers of underground mining apply, including handling heavy loads in confined spaces, poor accessibility to workplaces, and controlling the rock formation as well as the ventilation for climate and pollutants.

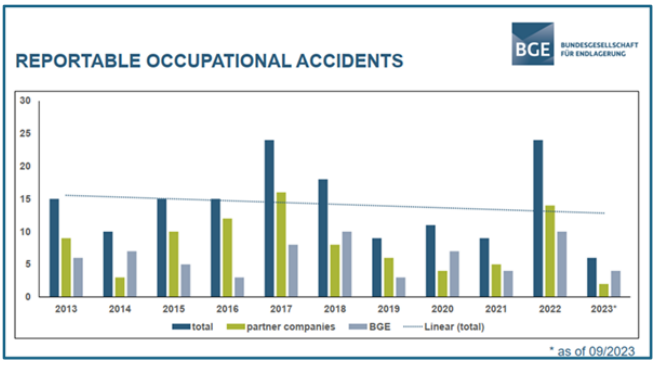


Adding to the challenge, most of the repository mines are old extraction mines, requiring an adaptation of today's construction processes into the old settings. The construction work in the shaft and pit are carried out simultaneously; many interdependencies are to be considered. In addition to the requirements of mining law, the BGE is also subject to the strict requirements of nuclear law.

Occupational health and safety are our most important corporate goals, reaching the VISION ZERO aim. One might wonder, if it is even possible to have zero accidents in such a work environment as described above. In the past, the BGE was able to reduce the number of reportable accidents with increased workforce significantly. We have approx. three accidents per 1 million hours worked. Furthermore, we did have no reportable incidents in the first half of 2023.



The main conclusion is: Although we register an increasing number of employees, a rising amount of work activity and even an increasing number of partner companies, the average number of reportable occupational accidents decreases at all, at least in the past ten years. We are laying our focus on a special contractor management program, which is due to the observed relatively high number of accidents with our partner companies.



Not only do we want our employees to come home healthy every day, but we also want them to retire healthy. For this reason, the BGE has introduced extensive health-promoting measures in recent years, such as health and fitness programs (e. g. training courses for back-health, seminars for handling of stress respectively of quantity of work or time management and arrangement of pause). On the second hand, BGE

> **With the establishment of our Vision Zero programme, we now focus more on behavioural causes of accidents.**

has introduced a capable occupational health service with installation of necessary examination rooms with the required equipment.

Two company physicians and two medical technical assistants have been employed for carrying out the examinations. Finally on the third hand we have established a comprehensive program to reduce psychological stress, which includes e. g. both seminars and workshops for leaders as well as measures for teambuilding.

With the establishment of our Vision Zero programme, we now focus more on behavioural causes of accidents. Therefore, the BGE has introduced a very special mindset and culture program regarding occupational health and safety. This program has been developed in close accordance with the general guiding principles of the BGE.

There is a statistical poof, that 80% (Deutsche Gesetzliche Unfallversicherung, DGUV) of all accidents are caused by behaviour. That is why the culture program focusses on how behaviour can be changed to achieve higher levels of health and workplace safety. Indeed, to reach this goal it all starts with the leaders, role modelling their behaviour.

The following main ambitions are to be obtained with the culture program: Reaching a positive culture of failure, reciprocal respect and assistance, managerial staff is introduced to lead by example (role model), employees are taking care for each other, and they address unsafe behaviour to transform this together into safe behaviour.

After having carried out 46 workshops for all our leaders with a participation quota of more than 90 %, we train behaviour-oriented tours with our teams. Within this program we have introduced tools such as starting every meeting with a safety impulse or carrying out behaviour-based safety-tours by the leaders.

Concluding we must state that Vision Zero is fundamentally possible, corporate culture regarding occupational safety and health is most important (leaders as role models) as well as involvement of partner companies in corporate culture programmes.

Vision Zero in Trade and Goods Logistics: How to prevent fatal and serious occupational accidents?

Author

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BGHW / ISSA Section Trade

Key facts

- The biggest step to prevent accidents, especially fatal and serious occupational accidents, is to identify the real hazards. It is therefore necessary to use all help you can find.
- People make mistakes. Technical solutions are more successful than organizational solutions or personal protective equipment.
- To involve the employees in identifying hazards and developing solutions is more effective than to only inform and train them.

Fatal and serious occupational accidents in trade and goods logistics are seldom, so most companies lack concrete operational experience. To reduce such kinds of accidents in the future and to reach a world without fatal and serious occupational accidents, the companies need help to identify the real hazards and to control the risks.

Vision Zero and Seven Golden Rules

The Vision Zero strategy and the seven golden rules are based on the belief that every accident can be prevented by looking at the three pillars of safety, health, and well-being. For the prevention of accidents especially the identification of hazards in the companies – the second golden rule in the Vision Zero strategy – is of special importance. Because based on the identified hazards prevention measures and the health and safety program are developed in the companies. This is the more problematic, the less concrete operational experiences exist in the companies. This can be the case if the company is small, and accidents are therefore seldom or if the risks for accidents are generally low in the company. In these cases, the information about hazards must be gathered from other sources.

In trade and goods logistics, especially fatal and serious accidents are seldom. This, of course, is a good situation. However, as investigations showed, the lack of operational experiences in companies lead to the point that the actual risks for fatal and serious occupational accidents are not taken into account in the risk assessment. Due to this situation, prevention methods such as defining targets, ensuring a safe and healthy system etc., do not include the risks for fatal and serious occupational accidents and thus, these kinds of accidents are not prevented. So, identifying the actual hazards for fatal and serious occupational accidents is the key for a company's prevention and for the company's way to Vision Zero.

Figure 1. 7 Golden Rules

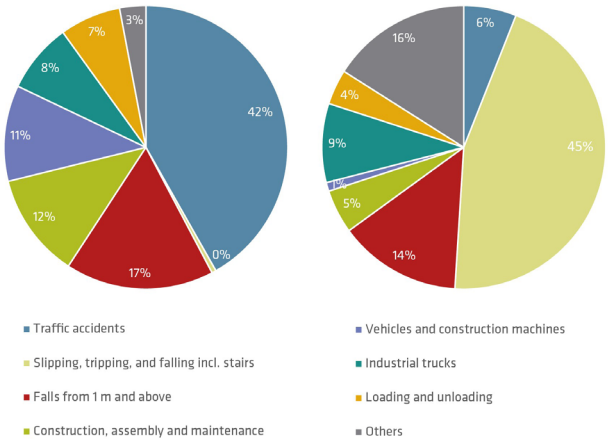
Accident Investigations

Due to the situation that fatal and serious occupational accidents very rarely occur in trade and goods logistics companies, it is necessary to provide support in identifying the real hazards. Therefore, the first step is to identify what exactly are the fatal and serious occupational accidents in the trade and goods logistics sectors. To gather this information, all fatal occupational accidents were investigated in the period from 2012 to 2019 and all serious occupational accidents in the period from 2017 to 2018 [1, 2]. Commuting accidents that occurred on the way between home and work and back were not included.

> **Identifying the actual hazards for fatal and serious occupational accidents is the key for a company's prevention and for the company's way to Vision Zero.**

The labour inspectors from the Berufsgenossenschaft Handel und Warenlogistik (BGHW), which is the statutory accidents insurance for trade and goods logistics in Germany, visited the companies at the site shortly after an accident happened, and investigated the accidents in detail using a standardized questionnaire. All relevant data about the investigated 315 fatal accidents and 1,053 serious occupational accidents were analysed in detail, clustered, and described. It was found that only six main causes are responsible for the fatal occupational accidents and seven main causes for serious occupational accidents (see Figure 2).

Figure 2. *Distribution of fatal occupational accidents (left pie) and serious occupational accidents (right pie) in trade and goods logistics in Germany*



Most fatalities are caused by normal traffic accidents, followed by falls from the height, especially from ladders and roofs, and by internal traffic. Most serious occupational accidents is caused by slipping, tripping and falling, followed by falls and traffic accidents.

Such accidents do not occur while using high risk machineries, but by doing a normal job: driving a car, using a ladder, driving a forklift truck etc. And in normal life, these activities are not considered as high-risk work as accidents usually do not occur. So, the main issue is to inform and to convince both employers and employees of what are their high-risk workplaces and, in the second step, of what they can do to avoid such accidents.

Particularly in case of traffic accidents most companies believe that they have no possibility to influence the drivers' behaviour as soon as they leave company premises, which is not true at all.

In summary, only a few distinct work conditions are responsible for fatal and serious occupational accidents in trade and goods logistics which is positive for a focus on prevention activities. On the other hand, exactly these work conditions are very common in trade and goods logistics and generally not considered as high-risk workplaces by employers and employees.

Conclusion

As mentioned before, both employers and employees normally do not recognize the risks for fatal and serious occupational accidents. They do not consider their workplaces as high-risk workplaces. And in most of the accidents examined, human behaviour played a decisive role in the event, such as being distracted while driving, stepping on unstable roof surfaces or reversing without support by a banksman.

So, are the victims themselves to blame? Do companies just need to work towards changing employee behaviour? No, certainly not! The behaviour shown may well be the result of technical or organizational deficiencies: potential technical aids may not be provided, or the wrong equipment is made available, hazards are neither recognized nor discussed, patterns of behaviour are generally accepted, and safety instructions are not sufficiently observed. Many other examples could be added to this list.

However, it shows that the cause of any accident does not only relate to the moment of the accident itself. Previous decisions, such as the purchase of a vehicle or machinery, may be decisive for the cause of an accident. If technical measures to protect employees are not considered, this may have fatal or serious consequences for the employees at a later point in time.

The person involved or killed in an occupational accident is only the last link in the STOP chain. The STOP abbreviation stands for Substitution, Technical Measures, Organizational Measures and Personal Measures. This principle represents a chain of hierarchical prevention measures to be taken. At the same time, all conceivable prevention measures may be assigned to this hierarchy. Accident risks that are not minimized by the STOP principle or eliminated in advance must be minimized by individual action according to the situation. Prevention is meant to protect employees in such a way that, if possible, incorrect actions in high-risk situations have no harmful consequences.

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All information about the investigation of fatal and serious occupation accidents in trade and goods logistics and a practical guide to prevent such kind of accidents are available on the BGHW Kompendium Arbeitsschutz website or the ISSA Section Trade website [3, 4].

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Lockout Tagout - How to Control Critical Risks by LoTo?

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What is lockout tagout (tryout)?

► Lockout tagout is the de-energizing and securing of equipment, machinery or processes so hazardous energy isn't re-introduced during servicing or repair. This in-cludes closing electrical circuits and valves, neutralizing extreme temperatures, securing moving parts and more. Tryout means testing all related energy sources for verification of zero-energy state.

A brief history of lockout tagout (LoTo)

It had been invented in the US, however lockout tagout plays today a major role in worldwide workplace accident prevention.

The OSHA lockout tagout standard for the Control of Hazardous Energy (Lock-out/Tagout), Title 29 Code of Federal Regulations (CFR) Part 1910.147, was devel-oped in 1982 by the United States Occupational Safety and Health Administration (OSHA) to help protect workers who routinely service equipment in the workplace. Legally, it went into effect in 1989. Ever since, the lockout standard has played a vital role in keeping employees safe on the job. Key lockout tagout statistics (OSHA statistics only for US figures) demonstrate that lockout programs:

- Save lives by preventing an estimated 50,000 lockout tagout injuries and 120 fatalities annually in the US [1];
- Cut costs by decreasing lost employee time and insurance costs;
- Improve productivity by reducing equipment downtime.

What is the difference between lockout and tagout?

Lockout occurs when an energy source (electrical, mechanical, hydraulic, pneumatic, chemical, thermal or other) is physically isolated from the system that uses it (a machine, equipment or process). This is done using a variety of lockout padlocks and devices best suited for specific applications. Devices such as circuit breaker lockouts or valve lockouts can be used for more specific lockout jobs.

Tagout is the process of affixing a label, or tag, that communicates information about what's being done to the machine or equipment and why it's important. Details on a tag may include:

- DANGER or WARNING lockout tag
- Instructions (e.g., Do Not Operate)
- Purpose (e.g., Equipment Maintenance)
- Timing
- Name and / or photo of the authorized worker

Tagout alone is not recommended as it does not provide a physical means to pre-vent equipment from re-energizing. Since the inception of the lockout tagout standard in 1989, energy isolation points have been modified or replaced to

allow for safety padlock placement, and new devices have been developed to retrofit energy sources to help meet the standard.

When used together by affixing a tag to a padlock, lockout and tagout provide enhanced protection for workers against re-energization.

Lockout tagout program components and considerations

A typical lockout program can contain more than 80 separate elements. To have, for example, an OSHA-compliant lockout tagout program (also applicable for all coun-tries outside OSHA region) must include:

- Lockout tagout standards, including creating, maintaining and updating equipment lists and hierarchies;
- Task-specific procedures;
- Workplace regulations, such as confined space entry requirements.

Periodic inspections are required. As a best practice, an annual review of lockout procedures is recommended.

Other best practices include:

- Program standardization
- Lockout tagout software
- Annual authorized / affected training (authorized will be more frequent)
- Updating isolation points
- Management of change
- Contractor training
- Device inventory

The host employer often will have greater familiarity with the energy control proce-dures used at the host facility. However, according to 29 CFR §1910.147(f)(2)(i) – exemplary for US regulations, but analogously applicable for other countries –, the host and contract employers are required to inform each other about their respective energy control procedures. [2] Such coordination is necessary to ensure that both sets of employees will be protected from hazardous energy.

The contractor must take the reasonable lockout tagout steps, consistent with its authority, to protect its employees if the contractor knows, or has reason to know, that the host's energy control procedures are deficient or otherwise insufficient to pro-vide the requisite protection to its employees.

Lockout tagout requirements for paperwork vary by company and the case of application. However, a best practice is to have a log of all servicing that requires lockout with sign-out sheets of all isolation devices. Any permits needed to complete the service (hot work, confined space or working at heights) should be copied and kept with the service log. Keeping devices and documentation together is a best practice, usually achieved through use of a permit control station.

Understanding lockout tagout procedure requirements

OSHA and other regulations worldwide allow the grouping of same or similar equipment and procedures to ease the burden of periodic inspections. A best practice is to have a specific procedure for each individual machine posted on or near the machine. Even if you have two identical machines, it's still preferred to have a procedure for both. This helps prevent confusion and demonstrates your thorough-ness to inspectors.

Some companies develop generic lockout tagout procedures and supplement them with checklists or appendices to address various, distinct equipment as part of their lockout system. This type of procedure may be considered a single energy control procedure (instead of multiple procedures) for inspection purposes if all of the criteria for grouping same or similar equipment is met. However, if checklists or appen-dices address equipment that does not all use the same or similar types of control measures, the employer is required to divide machinery and equipment into groups based on the same or similar types of control measures.

Once this is accomplished, an employer may inspect and review the generic energy control procedure in conjunction with each distinct group of equipment referenced in the relevant checklists or appendices.

You need machine-specific procedures for all equipment at your facility, even if contractors are the only people authorized to work on the equipment. Further, even if there are no authorized employees, training is required for all employees and a periodic (best practice: annual) procedure review needs to be complete, with any changes communicated to the contractors before servicing.

Authorized contractors can write machine-specific procedures, though these procedures are best developed by employees familiar with the facility to ensure the correct disconnect is being used. Outside contractors unfamiliar with the equipment

> **The lockout standard has played a vital role in keeping employees safe on the job.**

may miss an energy source if the authorized employees are not involved in verifying the procedures achieve a zero-energy state.

Generally, the transfer of responsibility can be accomplished by the incoming shift accepting control of a system prior to the outgoing employees releasing control of that system. The orderly transfer of personal lockout tagout devices between out-going and incoming employees must ensure there is no gap in coverage between the outgoing employees' removal of lockout devices and the incoming employees' attachment of devices.

The OSHA standard specifies only mechanical devices and tags must be used. For example, an authorized employee watching a switch in place of a device while an-other authorized worker performs equipment maintenance is not allowed. While convenient, OSHA specifically indicates a method such as this is not as reliable as a mechanical device.
Testing electrical components with a meter is recommended to verify isolation when testing at the control panel is not possible. There are a few ways to verify pressure has been bled out. Noise is a common practice for compressed air lines since dump valves make a loud noise when releasing pressure. Depending on the location of the isolation point, connecting air tools to the line to bleed off the line is another way to verify de-energization.

The major steps in implementation of an effective lockout tagout system

- Evaluation current status
- Selection of appropriate, fitting padlock-system, tags and LoTo equipment
- Create and establish fitting LoTo-procedures
- Implementation of LoTo-system (step by step, start with a pilot installation)
- Training
- Best Practices
- Initial audit/annual Audit

References

[1] OSHA files about Lockout Tagout.

[2] 1910.147 - The control of hazardous energy (lockout/tagout). Occupational Safety and Health Administration.

[3] BG RCI about Lockout Tagout (German).

[4] Swiss SUVA includes LoTo in their „Eight Vital Rules for Maintenance“ (German)

ZERO Explosion Risk in Oxyfuel Cutting and Welding

Author

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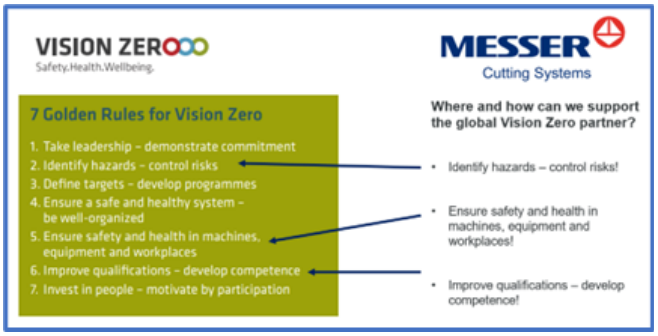
Product Innovation S.A.T. System – the leakage guard in oxyfuel cutting and welding

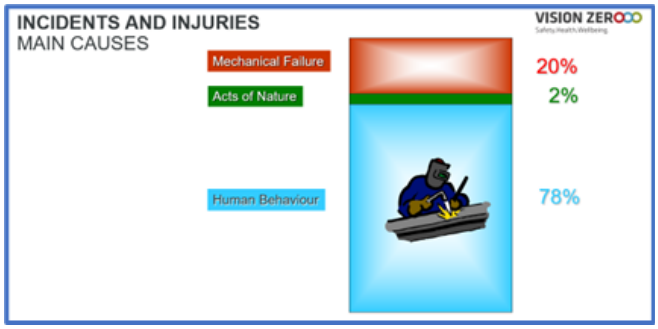
Messer Cutting Systems is a German manufacturer of high-quality and efficient oxyfuel equipment and a partner of Vision Zero. In 125-year company history, the main target of the global product development has always been, to increase the safety as well as health and wellbeing in the use of oxyfuel equipment with all applications and in all working places. As in general oxyfuel is a high-risk substance, the challenge has always been: "Is it possible to reduce the explosion risk to Zero in oxyfuel cutting and welding?"

Vision Zero and its 7 Golden Rules inspired our product innovation team to re-think our technological solutions. The "7 Golden Rules" of Vision Zero provide guidance to re define the role as manufacturer and supplier and to deliver or sell not only technical equipment but to supply our customers a solution.



Additionally, we had a look on accidents and injuries on a global scale regarding the use of oxyfuel equipment. The documented numbers of accidents are not as high as with other applications, but in case of an accident, the consequences are mostly massive.

That is the reason, why education and training programs in all industrial sectors are common to control those risks and to ensure a higher level of safety in the working environment. The analysis of accidents which have been reported to us, which has been done in cooperation with our global partners, such as Gas Safety International (GSI) in South Africa, resulted in the following accident causes:



In 78 % of all analysed cases "Human Behaviour" was involved significantly. What can we take away from this information and what are the consequences for the process safety?

Of course it is necessary to further reduce mechanical failures, but this alone is not sufficient. We must improve at the same time the human behavioural factor, and this means substantial competence development of the qualified workers is essential. The risk awareness of the specialists at the workshops must be developed – and this means training and motivation are required.

In this respect, the 7 Golden Rules of Vision Zero are the right eye-opener – for manufacturers as well. We are together with our customers in industry in the same boat and have an important role to play: Manufacturers have to share the responsibility for the workers onsite and have to care for a well- design safe and healthy process.

Suppliers must follow the 7 Golden Rules:

- Golden Rule 1 for Suppliers: We must accept our responsibility and show our commitment for the industry and for the workers. It is not enough to say, "The worker made a mistake". We are part of the system.
- *Golden Rule 2 for Suppliers:* Of course, we must do our best to collect information about accidents and diseases in

> **The risk awareness of the specialists must be developed – and this means training and motivation are required.**

industry with a link to our technology. This is a challenging issue as nobody likes to report bad things. We must sensibilize our customers and our dealers to inform us about near-misses, damages and accidents. Probably it would be useful, to invite major customers with the special focus of safety and discuss issues around a table in a systematic way.

- *Golden Rule 3 for Suppliers:* It is recommended that safety, health and wellbeing should be a strategic topic in our internal production processes but should not end there. Manufacturers should therefore live the Vision Zero approach internally, but as well transport it together with the sold products to the industry. This is the way to develop from a mass-producer to a system-supplier.

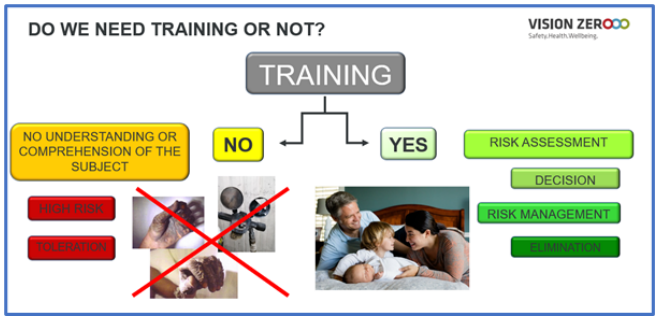
- *Golden Rule 4 for Suppliers:* Delivering products, suppliers must analyze all possible health and safety risks in a systematic way and choose the right recommendations for safe and healthy use of their product at the workplace. This includes to deliver a safe product, but as well to recommend safe procedures, necessary personal protective equipment, to deliver comprehensive, informative and easy to understand operating manuals as well as practical training and instruction offers to assure that workers become competent regarding safe use of the product.

- *Golden Rule 5 for Suppliers:* This is the most important rule for suppliers as everything starts with a well designed and produced technical product. It is essential to include in the design phase all possible situations for troubleshooting, maintenance and repair as those are the most critical operating conditions.

- *Golden Rule 6 for Suppliers:* This Golden Rule is all about developing, improving and ensuring the competence, which is required for the technical product. Training, as practical as possible and demonstration of the use are essential. Videos, training kits and instruction materials should be delivered.

- *Golden Rule 7 for Suppliers:* This is about dialogue with workers and managers. Suppliers can develop incentives for workers and frontline managers to achieve a relation built on trust. This will help to motivate workers and managers to communicate positive and negative experience with the product at an early stage.

Based on the Vision Zero Philosophy, Messer Cutting Systems together with all global partners works hard to provide safe products as well as proper knowledge transfer and safety training for all oxyfuel products.



Depending on the product function, country specific standards, guidelines and requirements many countries have implemented good systems and tools to guarantee safety and health working with oxyfuel equipment. Examples are shown in the following table:

SAFETY AND HEALTH IN REGARD TO OXYFUEL EQUIPMENT
FUNCTION, MAINTENANCE AND REPETITIVE CHECK

- Safety regards to mixing system, e.g. injector system save for gas backflow compare to equal pressure system
- Confirmed and certified product quality, e.g. by BAM
- „Repitive check of working equipment" by a qualified person according to the Ordinance of industrial safety and health, DGUV-guidelines 500 Chapter 2.26
- Check of the equipment for proper conditions, function and tightness against athmospere by the worker before use

But, even if all safety instructions and procedures are handled correctly, there was still one risk remaining: the potential of a leakage in the fuel gas hose. Regarding to the low percentage of fuel gas needed to create an explosive mixture with the surrounding air (Acetylene 2.3%, Propane 1,7% and Methane (Natural gas) 4,4% in air), this risk is significant, when the work takes place indoors. The highest risk levels are reached while working for example in mines or in ships.

The hoses can have a length up to 200 meter and can´t be checked completely before starting the daily work or during the work process by the worker. Those leakages have been the reason for many explosion accidents and fires in the past and still are.

For Messer Cutting Systems and GSI South Africa, the potential for those accidents was the reason, to focus the product development on a brand-new solution for a leakage proof system. The goal was to develop a safety device where even in case of massive damage no fuel gas will get out of the system to the atmosphere, resulting in fires or explosions.

Outcome of this development is the launch of the brand-new innovative S.A.T. System (S.A.T. stands for Safety Advanced

Technology) – it provides the highest safety level and fuel gas is no more able to get out of the hose to the surrounding atmosphere. The patent pending System consists of a valve installed at the pressure regulator and a special developed cutting torch. This torch creates a defined negative pressure, which opens the valve and guarantees that there is never a positive pressure inside the hose. There is no longer a risk through small defects, loosened connections or damages of the hose. Escaping fuel gas can no longer get into gloves or sleeves. In case of a bigger defect or the torch doesn´t work as intended, the negative pressure inside the hose drops and stops the gas flow immediately. The user is now aware that there is a defect and can react.

Resume

Messer Cutting Systems and GSI South Africa work together to constantly improve this essential technology of oxyfuel cutting and welding. Inspired by the Vision Zero Strategy we came to optimized technological solution to reduce explosions and fires during the process to ZERO.

The new product is now available and must be used in industrial workplaces. Messer Cutting Systems and GSI South Africa follow all "7 Golden Rules for Suppliers" of Vision Zero – we are convinced that the role of worldclass supplier is more than selling a cheap mass product – we want to be a reliable system partner for the industry. We strongly believe that ZERO accident in cutting and welding by oxyfuel technology is not an illusion but it is possible - our commitment is based on Vision Zero and the 7 Golden Rules.

Vision Zero versus Standardization: A Position Statement

Author

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Commission for Occupational Safety and Health and Standardization (KAN)

Key Facts

- Standardization is a valuable tool for setting requirements for safe machines and work equipment.
- Standardization can support implementation of the Seven Golden Rules.
- Standards should be limited to product safety requirements. They should not interfere with national rules and regulations governing the safety and health of workers at work.

The concept of Vision Zero, which champions the elimination of occupational accidents and diseases, stands at the forefront of contemporary occupational safety and health (OSH) discourse. In the pursuit of safe and healthy workplaces, standardization is a valuable instrument for ensuring the safety of work equipment. This article delves into the relationship between Vision Zero and standardization, highlighting both potential and limitations of the latter.

We often take for granted that the products we purchase and use in our daily lives are safe. When buying chocolate, for example, we assume that although it may not be particularly healthy, it is nevertheless free of heavy metals, solvents and sharp metal parts from production machines. This assumption is built on several labels and a foundation of laws, rules and standardized testing methods, such as the European Cocoa and Chocolate Directive and various national rules (such as those of the Federal Office of Consumer Protection and Food Safety in Germany), many of which have been adopted in standards.

Foundations of safe workplaces: laws, regulations and standards

The same principles apply to the realm of occupational safety and health (OSH). By formulating design specifications and safety requirements, standards support manufacturers in complying with the laws applicable to their products. Standards contain reliable measurement and quality management methods that serve as a basis for testing and certification. They therefore constitute an important link in the chain from the idea for a product to creation of a safe and healthy workplace, and support implementation of Vision Zero and its Seven Golden Rules.

Vision Zero and standardization: three aspects

The relationship between Vision Zero and standardization can be broken down into three aspects. Firstly, the two overlap where standardization aids in reducing hazards, organizing systems effectively, and designing and testing safe work equipment. Secondly, limitations arise when concepts are not yet mature enough to be standardized, or when standards contain requirements that are excessive from an OSH perspective or lie outside the standards' remit, such as extensive management requirements. Finally, synergies can be achieved when standards reflect the practical state of the art whilst at the same time respecting the competence of the legislator and other regulatory bodies.

Several examples highlight the role of standardization in the implementation of the Seven Golden Rules:

Employers are obliged to identify and assess hazards, such as exposure to vibration at the workplace, to formulate suitable protective measures. Standards can support this rule, Golden Rule 2, by providing the standardized test methods that are necessary to ensure compliance with the legal requirements. An example is ISO 2631-1: Mechanical vibration and shock – Evaluation of human exposure to whole-body vibration.

Golden Rule 4 requires organizations to ensure safety and health by good organization. The ISO 45001 OSH management standard is a well-known example of a standard addressing the occupational safety and health of workers at work. It covers aspects such as leadership by and accountability of top management, senior management's role-model function in a safety and health-conscious culture, communication of OSH measures, and consultation and involvement of employees' representatives. The standard can therefore contribute to safe workplaces and the prevention of work-related accidents and diseases.

Following development of the standard in a project committee, ISO redesignated the project committee as a regular standards committee, ISO TC 283, Occupational health and safety management. The formation of TC 283 and the committee's current projects (ISO 45002 concerning OSH management in small and medium-sized enterprises, and ISO 45003 concerning psychological health and safety at work) have confirmed the concerns of German OSH stakeholders that ISO 45001 was merely the prelude to further standardization activity in the sphere of occupational safety and health. The KAN Secretariat will continue to monitor the international activity constructively and if necessary, critically.

Golden Rule 5 addresses the essence of standardization: ensuring that machinery and other work equipment is of safe design and does not present any hazards to workers. Pressure vessels are an example of how standards can contribute to greater safety: technicians must frequently climb into the vessels to perform construction, maintenance, repair and inspection work. However, the openings through which they must pass for this purpose are often elliptic in form and so small (the equivalent of two A4 sheets of paper) that although access is possible, rescuing a person in the event of an accident presents considerable difficulties, particularly when the affected individual is unconscious. Through a joint initiative, several OSH institutions brought about corresponding changes to standards, requiring larger access openings and thus providing greater safety for employees.

Another example are quick couplers on construction machinery, which enable machine operators to switch tools without leaving the machine. Many serious and fatal accidents occur when tools are not interlocked correctly and fall as a result. In order to prevent this, it must be ensured that operators are aware of the locking state and warned in the event of incorrect locking. In addition, operation of the device should be possible only when the tool is properly locked. European authorities and OSH institutions advocated the addition of requirements to this effect to the relevant standards, which resulted in the design of these couplers becoming safer.

Limitations of Vision Zero and standardization

Standardization undeniably presents benefits regarding Vision Zero and implementation of the Golden Rules. Time and again, however, standards interfere with operational procedures, national regulatory competences or employers' responsibilities. One such example are management standards supplementing ISO 45001. The ISO project on OSH metrics is intended to make OSH statistics comparable internationally by means of key indicators such as lost working hours, the number of occupational accidents and OSH qualification measures. However, it fails to consider that the definition of an occupational accident varies between countries. Statistical distortions may arise, especially in SMEs with a low number of cases. The standard could also create incentives not to report minor accidents, particularly where minor.

Problems also arise where new technologies or immature concepts are standardized. This was the case with EN 12464-1, Light and lighting – Lighting of indoor workplaces – Part 1: Indoor workplaces, which addresses both the visual and non-visual aspects of light. Non-visual effects of light, which have an influence on the circadian rhythm, are however still very much the subject of research.

Service standards are on the rise and are strongly supported by the European Commission and standards organizations. The objective is for standards to make services more

> **Standards contribute most effectively to Vision Zero when they focus on setting verifiable requirements for safe machines, work equipment, and workplaces.**

easily comparable and to permit trade in them across national borders. Occupational safety and health of the service providers is seldom a focus of such standards but is considered a criterion for the quality of a service, even though this aspect is already subject to other rules and regulations. Where contradictions arise, they may result in users applying only the standard and failing to fulfil binding requirements. Safety-relevant qualification requirements for service providers are also repeatedly addressed in standards, e.g. in rail track construction, the safe handling of chemical and biological substances by pest exterminators, or the work of tattooists. All these aspects are part of the safety and health of workers at work, raising the question: Is this really a task for standardization?

Do standards support Vision Zero, or not?

Standards contribute most effectively to Vision Zero when they focus on setting verifiable requirements for safe machines, work equipment, and workplaces. These synergies have the potential to prevent occupational accidents and diseases. In other areas, the OSH community should recognize the need to impose boundaries on standardization where it fails to add value, takes up concepts that are not mature, imposes excessive management or other requirements, or infringes upon the competence of national or international regulatory bodies. Adequate involvement of all stakeholders.

About KAN

The German Commission for Occupational Health and Safety and Standardization (KAN) has the task of monitoring and supporting standardization activity from an OSH perspective and presenting the technical and political interests of the OSH lobby in standardization activity. Its members use KAN as their common voice and benefit from the influence gained by presenting a unified standpoint. However, KAN is not itself a standards body.

Standards development work is conducted primarily at European and international level. KAN's European representation in Brussels serves as a point of contact between the German OSH sector and the EU.

KAN was founded in 1994. It is maintained by the Association for the Promotion of Occupational Safety in Europe (VFA) and funded by the German Federal Ministry of Labour and Social Affairs (BMAS). The VFA's members are the German Social Accident Insurance Institutions.

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Global Supply Chains: Vision Zero for Compliance, SHW+ and More

Author

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Vision Zero is ISSA's global people-centred prevention strategy integrating the three dimensions of safety, health and wellbeing (SHW) at all levels of work. It focuses on prevention efforts to promote workplaces that are free of accidents and injuries, work-related diseases and illnesses to establish work processes with people staying safe and healthy. Vision Zero accepts the right of every worker to life and physical integrity, as outlined in the United Nations Universal Declaration of Human Rights. This strategy can also be used along supply chains.

Initial Situation in Trade

Today's economies are characterized by globalisation and cross-border trade. Companies specialize in their core businesses and use global supply chains to organize the activities needed to develop, produce, and deliver goods and services to their consumers worldwide. Global supply chains increase productivity. They can boost economic growth and thus create new jobs. As per UNCTAD (UN Conference on Trade and Development) 80 % of global trade takes place along global supply chains. Due to internationalization, increasing flow rates and changes in global consumer behaviour, these supply chains have become extremely complex and highly sophisticated with the result, that they are not simple chains anymore but form a set of interlinked networks.

Every supply chain starts with the extraction of raw material or agriculture products, followed by several steps of suppliers, processing, transportation and finally ends up with the trading company and the customer. Moreover, supply chains do not automatically lead to better working conditions. It has been learned that the tasks involved in the companies' work may increase risks to the safety, health and wellbeing of workers of another company along the supply chain. According to ILO calculations, 453 million people worldwide work along global supply chains, in 2022 approx. 2.900.000 deaths per year must bemoaned because of unhealthy and unsafe working conditions all over the world. These numbers show that occupational accidents and work-related diseases take a heavy toll on humanity across the globe and cause significant economic losses.

Supply chains are closely linked to sustainability, which comprises the economic, environmental and social dimensions of work. Each company along the supply chain has to pay attention to many different tasks as well as legal obligations. Occupational safety, health and wellbeing is one vitally important aspect, among several others. The image of cogwheels perfectly illustrates this complexity and interdependence. In conclusion companies must face with these two effects of globalization:

1. When trading companies commission the production of their goods from suppliers, regardless of whether they act as employers or customers, social standards will be particularly affected.

2. Both companies and employees must deal with heterogeneous working conditions and different legal regulations worldwide.

In a changing world, the need for improving safety, health and wellbeing in global supply chains is widely recognized.

Aims

Against this background ISSA Trade decided to focus on Vision Zero and to use its principles for improving safety, health and wellbeing along global supply chains. The aim was to develop a new ISSA Vision Zero Guide especially for Global Supply Chains. It should be an instrument for companies of any sector and any size for both assessing and improving occupational safety, health and wellbeing and related fundamental principles and rights at work.

One of the main challenges in global supply chains is leveraging the supply chains for improvements in occupational safety, health and wellbeing, because fierce competition among suppliers, combined with high costs and time pressure, ultimately lead to a downward spiral in wages and working conditions to achieve even more cost savings. All these efforts result in the violation of basic human rights and/or occupational health and safety. Besides this, another challenge was to keep the guide as simple as possible. The professional work was done by the Finish Institution for Health at Work (Finland) in cooperation with Prof. Gerard Zwetsloot (Netherland) and managed by ISSA Trade.

> **It is very important for a responsible company to recognize signals that indicate there might be problems with these fundamental rights at work, because these must not be ignored. .**

Focus of the Guide

As a result of the increasing demand for sustainability, responsibility and due diligence, several opportunities to develop SHW at work have been brought up. This ISSA Vision Zero Guide for Supply Chains was addressed from this perspective, because all these aspects also include SHW. In addition, SHW are closely related to the fundamental right to a safe and healthy work environment, as underlined by the ILO in 2022. Furthermore, the Universal Declaration of Human Rights in 1948 states that everyone has a right to "just and favourable conditions of work", as well as the related fundamental rights. SHW is influenced by factors that go beyond organizational boundaries. Even though each company is primarily responsible for ensuring SHW within the own organization, it is important to widen the perspective to cover supply chains. Thus, SHW is relevant for each company, not only to protect its own best interests but to grow sustainable business practices together with its business partners.

This Guide is principally for companies that are motivated to take an initiative and start or continue to improve existing SHW conditions. In this guide the terms "initiating company" and "supply chain partner(s)" must be distinguished.

Initiating company refers to companies acting proactively in terms of SHW and related fundamental rights at work. Their action may influence and motivate other companies to do the same. Supply chain partner(s) refers to companies that are part of the supply chain and linked with the initiating company.

In line with the Vision Zero approach, the guide encourages companies to build sustainable, long-term collaboration with their supply chain partners. In practice, improving SHW and related fundamental rights along supply chains is a joint effort, and is both a challenge and an opportunity, requiring collaboration and mutual learning.

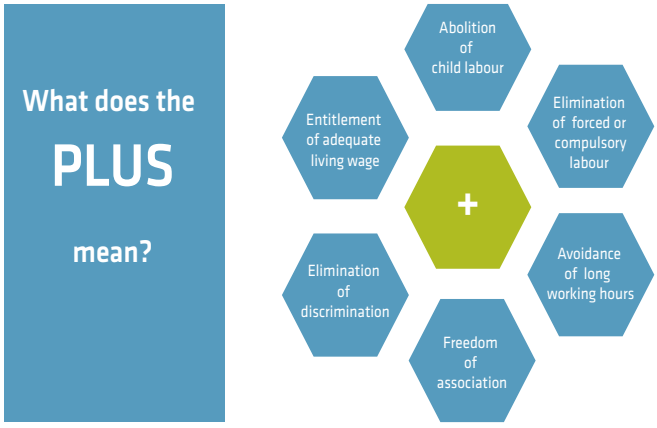
Structure and Content of the Guide

The guide consists of two complementary parts, the underlying concept is explained in part 1, and the instruments for practical use are provided in part 2.
In the first part, the fundamental idea of the Vision Zero strategy and its adaption to global supply chains is described. The SHW+ (PLUS) concept and the five-step process for improving SHW+ along supply chains build its core elements.

Meaning of SHW+ (PLUS)

When improving SHW along supply chains, companies must act together to prevent harm to human beings caused by work. The heart of the concept is the new term SHW+. It was developed to widen the aspects of good work life from safety, health and wellbeing to include related Human Rights and fundamental principles and rights at work. Violations of fundamental rights at work are closely linked to SHW, this can clearly be illustrated by the example of child labour. Therefore, it is very important for a responsible company to recognize signals that indicate there might be problems with these fundamental rights at work, because these must not be ignored.

Figure 1. *Fundamental Rights at Work covered in this Guide*



The "PLUS (+)" refers to:

- The abolition of child labour: The general minimum age for admission to employment or work is set at 15 years (13 for light work) and the minimum age for hazardous work at 18 (16 under certain strict conditions) (ILO 2023a).
- The elimination of forced or compulsory labour: Forced labour is a serious violation of a fundamental human right, and it is a leading cause of poverty and a hindrance to economic development (ILO, 2023b).
- The avoidance of long working hours: Long working hours (defined as > 55 hours per week) play the biggest role in work-related deaths, causing around 745,000 deaths each year globally (WHO and ILO, 2021b).
- Freedom of association and the effective recognition of the right to collective bargaining: The right to organize and form employers' and workers' organizations is a prerequisite for sound collective bargaining and social dialogue (ILO, 2023c).
- The elimination of discrimination in respect of employment and occupation: Freedom from discrimination is a fundamental human right and is essential for workers to be able to choose their employment freely, develop their potential to the full and reap economic rewards based on merit (ILO, 2023d).

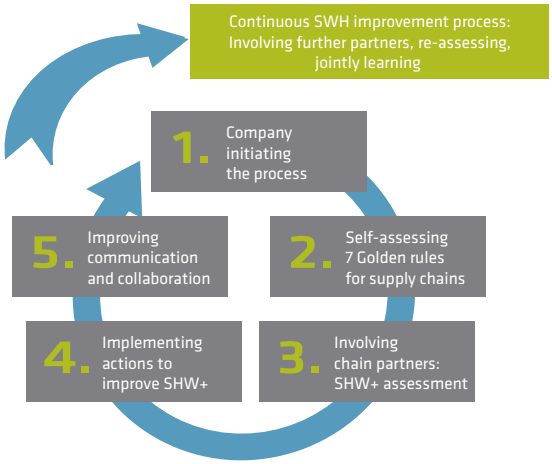
- The entitlement of adequate living wage: The setting of adequate wages is an essential mechanism to enable decent living standards and incomes for working women and men and their families, while at the same time ensuring the sustainability of enterprises which create the jobs for these workers (ILO, 2022b). "Everyone who works has the right to just and favourable remuneration ensuring for himself and his family an existence worthy of human dignity, and supplemented, if necessary, by other means of social protection" (UN, 1948).

Five-Step Process for improving SHW+ along supply chains

To give an idea of how to do the improvement of SHW+ in practice the model lays out a five-step SHW+ improvement process. It provides a framework to initiate or continue the development process with supply chain partners. The steps form a continuum for companies to engage in SHW+ improvement along supply chains.

Key for long-term collaboration and improving SHW+ along supply chains is building trust. Trust is built through interaction and requires regular communication, e.g. on visions, goals, practical means as well as failures. To do so, it requires a solid base for mutual support and learning. In the beginning, companies need to get in contact and find meaningful ways how to communicate with each other and how to interact on SHW+ topics. In the longer run, collaboration can take many different forms, such as joint forums and trainings or more comprehensive development programmes.

Figure 2. *A five-step process for improving SHW+ in supply chains*



This process addresses different companies. Step one and two affect the initiating company, the following steps three up to five pertain the direct interaction with its supply chain partner(s).

Step 1 - Starting the Process by the Initiating Company

The first step refers to the commitment to start the process for caring and improving SHW+. This step can be done by any company along the supply chain, each company can take the initiative and then starts from its own starting point.

Step 2 – Checklist A for the Initiating Company: Self-Assessment by using the "7 Golden Rules for Supply Chains"

Next the initiating company does a self-assessment by using the "7 Golden Rules for supply chains". This assessment is used for evaluating the present state of the initiating company regarding its own maturity level of SHW+. The practical assessment related to step 2 is provided as Checklist A in part 2 of this Vision Zero guide.

Step 3 – Involving Supply Chain Partners: SHW+ Assessment by Checklist B

For managing supply chains collaboration between companies is essential. Therefore, the initiating company contacts its supply chain partners in step three to gather information, to discuss and share detailed information on several aspects related to SHW+. For this purpose, the ISSA Guide provides Checklist B. This practical SHW+ Assessment for Supply Chain Partners related to step 3 is provided in part 2 of this Vision Zero guide.

Step 4 - Implementing Actions to improve SHW+ in Collaboration with Supply Chain Partners

This step refers to concrete actions and active collaboration between the supply chain companies to improve SHW+, which will create the basis for developing a long-term cooperation.

Based on the gathered information and outcomes of the previous assessments regarding the supply chain partners' current state, the main areas for improvement must be defined. It is good practice to develop an action and collaboration plan, jointly determining concrete tasks and means to accomplish priorities and goals in terms of improving SHW+. The initiating company takes the lead in discussions and decision making.

Step 5 - Improving Active Communication and Sound Collaboration to develop Partnership with Supply Chain Partners

The last step encourages both the initiating company together with the supply chain partners to improve their communication to deepen their interaction. They evaluate the goals and achievements set and involve more and more further supply chain partners for the purpose of trustful collaboration.

After having finished this round the continuous improvement process restarts with steps 2-5.

Forms for practical use

Checklist A: 7 Golden Rules for Supply Chains

This instrument is a self-assessment tool for the initiating company. It consists of a one-page form for each adapted golden rule. The initiating company uses it for evaluating its present state regarding its own maturity level of SHW+.

By documenting related challenges and opportunities in its own activities as well as of supply chains partner activities, existing good practices and challenges will become transparent and visible.

It can be assumed that a company that embarks on this process has already achieved success in safety, health and wellbeing PLUS and, therefore, will not have the low status of an absolute beginner regarding this topic.

The results of this self-assessment provide perspective for further collaboration between the initiating company and its supply chain partners.

Checklist B: SHW+ Assessment for Supply Chain Partners

This instrument provides essential questions and aspects to be addressed by the initiating company to its supply chain partner(s) to gather detailed information and to identify the main elements of its supply chain. It enables the initiating company to assess the present status of each supply chain partner company, and to visualize focal points regarding the need for improvement and prioritization.

This checklist shows the minimum standard of the SHW+ level and comprises also an action plan for supply chain partner companies regarding SHW+.

Template 1: Synoptical Table – Summary of SHW+ Aspects

This template aims to state a conclusion and final overview. The initiating company is enabled to combine the gathered information regarding SHW+ topics from its supply chain partners to set priorities.

This final document shows both the maturity regarding SHW+ of each supply chain partner company and the maturity of the entire supply chain. It can serve as a proof that the company has analysed its supply chains and has set measures.

Availability

The official international launch of the ISSA Vision Zero Guide for Supply Chains took place at the World Congress on Safety and Health at Work in Sydney on 29 November 2023. Now Now the Guide can be downloaded for free from the ISSA Trade Website and the Vision Zero Website.

Outlook and contact

The development of an electronic version of the checklists is planned. Against this background, ISSA Trade is interested in the users' experiences and would highly appreciate any comments. Please send them to: secretariat@issa-trade.org.

Wellbeing: The New ISSA Tool for a Growing Challenge at the Workplace - Managing Mental Health by Vision Zero

Author

Pernille Thau
Human House Denmark

Mental Health and Wellbeing from a Vision Zero Perspective is understood as an integral part of workplace health and safety. The mindset assumes that all accidents, harm and work-related ill health are preventable. Moreover, it emphasises the importance of creating a work environment that proactively supports the psychological wellbeing of employees. There are a lot of reasons why organizations would benefit from increasing their focus on wellbeing, including attraction and retention of employees and managers, social media reputation, as well as productivity and cost-efficiency.

The Vision Zero Guide on Wellbeing

Human House is proud co-author of the ISSA Vision Zero Guide on Mental Wellbeing: "*How to create a healthy work environment and promote wellbeing at work with Vision Zero*". The Guide aims to support leaders and managers by providing ample background information on wellbeing at work. It is a comprehensive mindset that aligns with various international guidelines and standards, and it builds upon the ISSA Guide for Vision Zero and its 7 Golden Rules. The Guide also provides tools to measure and manage wellbeing at work and emphasises the importance of proactive measures and a participatory culture in creating an environment where employee wellbeing is paramount.

The Vision Zero Maturity Scale Model

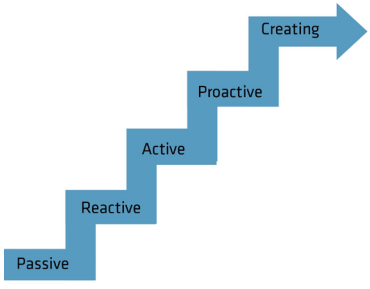
The Maturity Scale Model is a tool that aims to provide organizations with an understanding of their prevention level in relation to safety, health, and wellbeing. It helps them reorientate their practices towards reaching a higher level of prevention. Organizations can be at different steps on their journey towards wellbeing prevention. Some might be passive or only reactive as issues emerge while others might be active having implemented several actions to promote wellbeing at work. The journey can be viewed as a development starting from little to no engagement in preventive measures on the passive level, towards a more active engagement to actively fostering a safe and healthy workplace at the creating level. As the figure below demonstrates it, ultimately evolves into a stage where preventive measures are seamlessly integrated into the daily operations, becoming a central focus for management:

Assessment of the organizations' prevention level

On the passive level wellbeing is not a priority in the organization. The reactive level marks a lower tier of commitment, where the organization only focuses on wellbeing in case of, for example, many stress incidents or conflicts. Companies on the active level have wellbeing policies but might sideline them in daily operations meaning that there is not always consistency between words and actions in the organization. Those at the proactive level address wellbeing issues like employee stress and take steps to prevent these problems. This means that wellbeing is prioritised and focused on by preventing psychological ill health before it occurs. At its most advanced level, the creating level, wellbeing is an integrated part of business leadership with an ongoing daily focus. At this level, there is a focus on creating the best workplace to attract and retain managers and employees.

The Maturity Scale Model prompts reflection and dialogue and serves both as a benchmarking tool and a roadmap for organizations striving to achieve a higher level of prevention. Once you have assessed the prevention level of your organization, it is time to take measures towards reaching the next prevention level. This is where the 7 Golden Rules on Wellbeing come into play.

Figure 1. *Organizational prevention levels: Vision Zero Enterprise Maturity Scale Model*



Source: Inspired by Professor Patrick Hudson – adopted and further developed by Human House.

> **There are a lot of reasons why organizations would benefit from increasing their focus on wellbeing, including attraction and retention of employees and managers, social media reputation, as well as productivity and cost-efficiency.**

Vision Zero - 7 Golden Rules on Wellbeing

The 7 Golden Rules on Wellbeing of Vision Zero serve as a comprehensive framework to elevate workplace wellbeing. To successfully create a healthy workplace and reach a higher prevention level on wellbeing, the Vision Zero Proactive Leading Indicators (PLI) should be used and implemented. However, before we dive further into Proactive Leading Indicators, let's take a closer look at the 7 Golden Rules.

The 7 Golden Rules

The first rule *take leadership* emphasises how leadership commitment is paramount and that leaders are urged to actively demonstrate their dedication to the wellbeing of both managers as well as employees.

The second rule *identify hazards* underlines the importance of identifying hazards through wellbeing risk assessments, especially during changes in the organization and work processes.

Setting proactive wellbeing targets through leading indicators helps organizations measure their progress which is suggested in rule number three called *define targets*.

The fourth rule *ensure a safe and healthy system* points out that establishing an ethical framework ensures integration of wellbeing into all systems.

Safety in machines, equipment, and workplaces, including IT systems design, is moreover, according to rule number five *ensure safety and health in machines, equipment, and workplaces*, essential to prevent health risks.

The sixth rule improve qualifications, involves enhancing the competencies of leaders, managers, and employees in relation to wellbeing.

Finally, investing in people by involving them in regular and systematic wellbeing dialogues fosters, according to rule number seven invest in people, a culture of continuous improvement and engagement.

Figure 2. 7 Golden Rules

Vision Zero - Proactive Leading Indicators

And now back to the Proactive Leading Indicators. They represent dynamic and actionable processes, activities, and performances that extend beyond merely managing existing risks and maintaining current standards. They emphasise the recognising, creating, using, and evaluating opportunities for continuous improvement, thereby offering a higher potential for impactful outcomes. Some of the reasons for using Proactive Leading Indicators are focusing on activities that generate good SHW, predicting future SHW performance, identifying strengths and weaknesses, providing timely, proactive, and relevant feedforward and feedback, and allowing for benchmarking.

How can we set Proactive Goals for Wellbeing?

To successfully create a healthy workplace and reach a higher prevention level on wellbeing, organizations should develop and implement Proactive Leading Indicators (PLI) aligned with the 7 Golden Rules of Vision Zero.

Management: Vision Zero Leading Indicators – The Future to Manage Safety, Health & Wellbeing

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There is a need for proactive indicators of occupational safety, health and wellbeing as a supplement to traditional reactive indicators such as accidents and sickness absence. The presentation (please refer to the PDF) deals with the development of 14 Proactive Leading Indicators to supplement the International Social Security Association's 7 Golden Rules for a Vision Zero strategy.

Information was gathered through a literature study, and experience from industries, organizations from various sectors and countries, as well as from OSH professionals.
Indicators were selected that would be of practical use and value for companies in proactively gauging progress, and benchmarking with others. For each of the seven golden rules, two leading indicators were selected.

The indicators are relevant for each of the three facets of safety, health and wellbeing, and how they are 'integrated' in business processes. They are outlined in one-page factsheets with descriptions of the key concepts, aims, good practices and examples of how to measure the indicator. The indicators deal with leadership commitment and worker involvement, and integrating SHW in onboarding, training, communication, risk assessments, etc.

References

Zwetsloot G.; Kines, P.; Leka, S.; Jain, A. 2020. *VISION ZERO Proactive Leading Indicators: A Guide to Measure and Manage Safety, Health and Wellbeing at Work*. Geneva, International Social Security Association.

Zwetsloot G.; Kines, P.; Leka, S.; Jain, A. 2020. "VISION ZERO - Developing proactive leading indicators for safety, health and wellbeing at work", in *Safety Science*, Vol. 130, article No. 104890.

Measuring Performance: Safety Value Index

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Current Situation

The limitations of the conventional accident and incident indicators that occupational health and safety teams use today are becoming increasingly apparent. Because incident numbers reflect negative outcomes, and those numbers are in steady decline, companies no longer have informative statistics, which leaves them virtually unable to draw any conclusions about how safe and healthy their operations are. This also means companies do not have all the information they need to properly monitor their operations. Time lost to absence through sickness is of limited value in an holistic view of safety and health, such as that offered by a safety and health index.

External and demographic influences, for example, still need to be factored out. Occupational safety and health departments at large corporations are finding it increasingly difficult to put the case for investing in preventive measures; at small and midsize companies (SMEs), there is only limited acceptance of the need for such measures because "nothing has ever happened".

This is why companies of all sizes would welcome meaningful indicators – because the current ones are simply not suitable for demonstrating the quality of preventive measures relating to health and safety at work. The introduction of DIN ISO 45001, the new standard for occupational health and safety management systems, has triggered a marked increase in the need for occupational safety and health-specific indicators, because companies must draw on this information in management reviews to show what progress they are making.

Objective and Hypothesis of Research

There are various parameters (safety and health indexes) that measure prevention efforts and workplace health and safety by more than just the number of incidents, and that are effective in describing a company's health and safety situation.

The objective of the research is to develop a system, based on qualitative and quantitative indicators, that consolidates and evaluates a variety of weighted company data to create a KPI (key performance index) system for inclusion in reporting (like the Global Reporting Initiative (GRI) for sustainability).

The research must look at how to combine individual indexes to create a safety value index (SVI), for example.

The aim in the first step is to make it possible to quantify prevention work, including that carried out by the accident insurers, for the insured works, companies, and institutions as a basis for decision-makers. The idea is that these indicators can then later be used for management reviews, and as part of occupational safety and health management systems (determining the maturity of organizational units and benchmarking against other companies and sectors) and prevention campaigns.

These indicators will create greater transparency within organizations, across company boundaries, and for insurers. Workforce and employer representatives can also draw on these measurable parameters.

The research is also relevant to:

- Digital transformation/work in the digital age/workplace of the future: creation of indicators for modern ways of working and the blurring of boundaries between work and private life
- Sustainability (the UN's 17 Sustainable Development Goals): proof of the long-term effectiveness of preventive measures
- Diversity/inclusion/demography: data collection for health-related aspects

Small and midsize enterprises need simple tools so that time, cost, and complexity do not outweigh the benefits.

> **These indicators will create greater transparency within organizations, across company boundaries, and for insurers.**

Approach

The initiative to develop an occupational health and safety index began in 2017. SAP SE took on overall coordination through its head safety engineer Beate Hinze. Furtwangen University's Professor Arno Weber leads the scientific research and is supported by Professor Bruder from the Institute of Ergonomics and Human Factors at TU Darmstadt. SAP, the universities, and round about 20 partner companies in Germany came together in 2017, and again in 2018, for a design thinking workshop.

Between 2019 and 2022, work was primarily carried out online due to the COVID-19 pandemic. Since 2023, though, workshops with small groups have been taking place in person, which has resulted in an iterative process in which everyone involved can provide their input. It also ensures that they are all up to date on developments and can drive the initiative forward. The project is already working with the German Association for Safety, Health, and Environmental Protection at Work (VDSI) and is in touch with its statistics team.

The presentation that accompanies this document describes where the initiative stands today. It reflects the findings from three master's theses and two bachelor's theses, which have identified two categories of indicator:

- Safety Compliance Index
- Safety Performance Index

The Compliance Index covers the main factors of occupational safety in the workplace and is comparable to the criteria defined by ISO 45.001.

The Performance Index focuses on quality criteria relating to leadership culture, employee contribution to occupational safety, and health promotion.

Next Steps

The project will next look in depth at these two categories.

The next step is to compile a list of statements relating to the two categories to collect data for the indexes. A scale (ranging from one to five) will be devised to assess to what extent each statement applies. Businesses – and selected experts – will then be able to turn the set of statements into a survey to collect data about occupational safety at their company. This data collection method will be piloted in 2024 and will be the subject of a master's thesis. A second master's thesis will explore the business perspective.

The results of these papers will contribute to further developing the indexes.

The aim is to create a system of indicators that can be incorporated into reporting processes (like the Global Reporting Initiative). By weighting the individual indexes, it is possible to calculate a Safety Value Index score that can be plotted as a curve. This adds value for businesses because they can deploy targeted measures to ensure they keep improving.

The project team will continue to liaise with other relevant institutions and enterprises that are interested in the initiative.

Offensive Mittelstand: New concepts to assist and motivate SME´s and Family-owned Businesses

Authors

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BMAS

Background

Siemens, like other companies, needs to check suppliers for the quality of their occupational health and safety (OSH) systems. When working with small or medium-sized suppliers, this assessment is often challenging - usually small and medium-sized enterprises (SMEs) do not use certified management systems due to high costs and time constraints. For this reason, clients in need of reliable criteria for their assessment, usually oblige their contractors and/or suppliers to submit a bunch of information. This binds a lot of resources for both parties, the supplier/contractor and the client.

Solution

To find a common solution for this challenge with the benefit of a Win-Win, Siemens contacted the OM, a network of partners in Germany aiming to support SMEs (see box). Experts of the OM-foundation "Stiftung Mittelstand – Gesellschaft – Verantwortung", the Federal Ministry of Labour and Social Affairs (BMAS), a founding Member of OM, and Siemens developed an approach to simplify the process of prequalification, combined with fostering OSH activities in SMEs.

The aim is to offer SME's a harmonized low-level and verified self-assessment based on the GDA-ORGAcheck (OM-Praxis A-3.1), a reference instrument of the OM that was jointly developed by the German central government, federal state governments, German OSH insurances and social partners within the scope of the Joint German OSH Strategy (GDA). The GDA-ORGAcheck is aimed at the self-assessment of occupational safety and health organization. As a complementary element, the OM developed the online-Database "OM-Self-Assessment", where SMEs that successfully complete the GDA-ORGAcheck will be listed for two years. They also receive the "OM-Self-Assessment OSH"-logo for their PR.

Offensive Mittelstand

- The "Offensive Mittelstand – Together for Good Companies" (OM) is an initiative that promotes employee-oriented, productive, and preventive business management. The OM creates modern standards and practical tools developed especially for small and medium-sized companies. Currently the OM comprises about 400 partners, including federal government, federal state governments, business associations, trade associations, guilds, craft chambers, trade unions, professional business organizations, health insurance companies, research institutes and service providers.
- More information on the OM can be found here: www.om-zeichen.de.
- More information on the OM-foundation "Stiftung Mittelstand – Gesellschaft – Verantwortung" can be found here: www.stiftung-m-g-v.de.

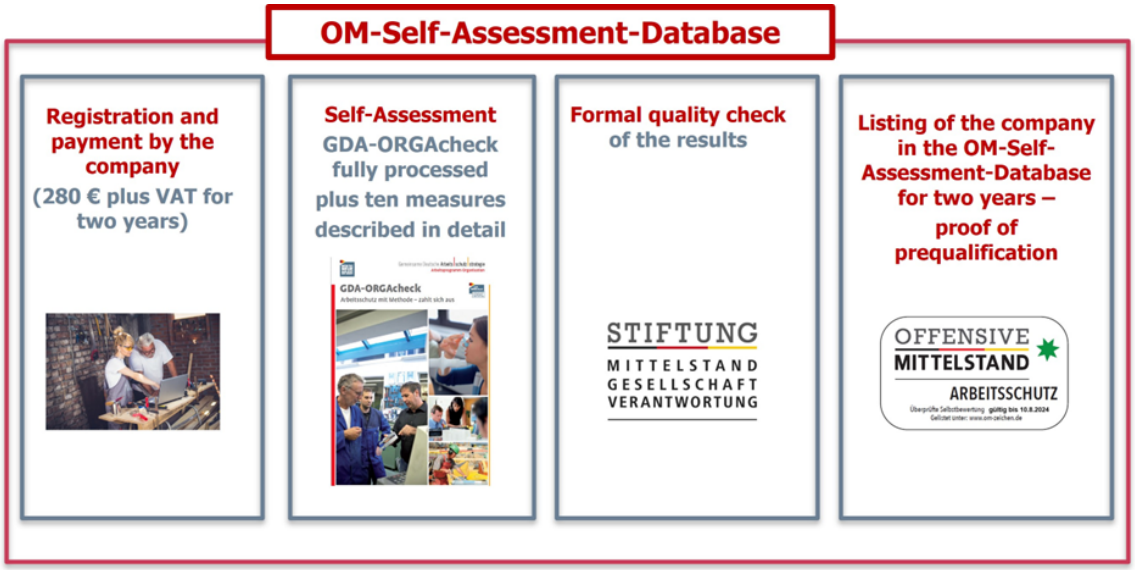
The "OM-Self-Assessment OSH" is a verified assessment based on the GDA-ORGAcheck (OM-Praxis A-3.1) as one of the OM-Checks, which are Practical-Standards. It helps SMEs with the organization and documentation of different requirements regarding OSH and leads to a prequalification certificate.

In order to become listed in the "OM-Self-Assessment-Database" and to receive the "OM-Self-Assessment OSH", SMEs have to take the following steps:

1. Registration on www.om-zeichen.de incl. payment (280 € + VTA for two years)

2. Completion of the OM-Self-Assessment: GDA-ORGAcheck (OM-Praxis A-3.1) fully processed, description of at least ten measures.

3. Formal quality check by the OM-foundation "Stiftung Mittelstand – Gesellschaft – Verantwortung" (SMEs with the need of rectification will be contacted).



Advantages

The "OM-Self-Assessment OSH" goes along with multiple advantages.

SME	Contracting company
• Low-level, affordable, broadly accepted proof of quality in OSH • Can be used for several clients (within the two years) • One-time effort • Image gain among clients, customers, and employees	• Simplification and standardization of prequalification processes • Reduced costs • Independent, non-profit, quality-assured self-assessment • Easy acquisition of qualified suppliers / contractors

> **The Offensive Mittelstand – Together for Good Companies is an initiative that promotes employee-oriented, productive, and preventive business management.**

Outlook

Since OSH is not the only relevant topic for clients, suppliers, and contractors, the "OM-Self-Assessment-Database" is to be expanded. Additional to the "OM-Self-Assessment OSH" the "OM-Self-Assessment Environmental Protection" will be implemented. The underlaying check will be the OM-Check "Operational Environmental Protection" (280 € + VAT für two years). Those two modules, OSH and Operational Environmental Protection, can be purchases independently from one another.

Furthermore, the "OM-Self-Assessment Supply Chain" (390 € + VAT) will be implemented as a comprehensive option. The "OM-Self-Assessment Supply Chain" compromises three checks:

- GDA-ORGAcheck (OM-Praxis A-3.1) for OSH
- OM-Check "Operation Environmental Protection" (OM-Praxis A-3.6) for environmental issues
- OM-Check "Supply Chain" (OM-Praxis A-3.7) for supply chains and human rights

The "OM-Self-Assessment Supply Chain" is particularly relevant, since on 1 January 2023 the „Act on Corporate Due Diligence in Supply Chains" (Lieferkettens-orgfaltspflichtengesetz, short: LkSG) entered into force in Germany. It is the legal foundation for „German companies to respect human rights in global supply chains" (BMAS 2023a)..

Currently LksG is applying only to enterprises with more than 3,000 employees, from 2024 on it will also include enterprises with more than 1,000 employees (BMAS 2023b).

But since the LkSG covers the complete supply chain including products and services, it also affects small and medium-sized enterprises if they interact as suppliers or contractors for large companies.

Additionally, this topic is not only relevant in Germany. In other European countries as well as in the European Union there are similar Due Diligence Acts planned or already enforced.

The "OM-Self-Assessment Supply Chain" is aimed at supporting SMEs to prove their compliance and to lower the bureaucratic effort for them as well as for the contracting companies.

Further information on the "OM-Self-Assessment Supply Chain" will soon be available on www.om-zeichen.de. In the future, it will also be available in English, so that SMEs affected by any Due Diligence Act will be able to get listed in the OM-Self-Assessment-Database and thus record their efforts regarding Corporate Social Responsibility and similar responsibilities.

References

[1] BMAS. 2023a. *Act on Corporate Due Diligence in Supply Chains*. Berlin, Federal Ministry of Labour and Social Affairs.

[2] BMAS. 2023b. *Supply Chain Act: Act on Corporate Due Diligence Obligations in Supply Chains*. Berlin, Federal Ministry of Labour and Social Affairs.

[3] *GDA-ORGAcheck: Systematic occupational safety and health pays off.* Mainz.

Vision Zero, a national strategy for a culture of prevention in Luxembourg

Author

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Key Facts

- Regular media coverage is essential to generate awareness for a culture of prevention in the workplace and to stimulate behavioural change
- The "7 Golden Rules" of Vision Zero and further prevention tools provide a suitable framework for the implementation of a culture of prevention in companies
- Appropriate counselling as well as regular information and exchange forums are beneficial for companies

The national Vision Zero strategy for the promotion of occupational health and safety was launched in 2016 in Luxembourg. In 2022, the second phase of Vision Zero (2023 to 2030) was announced, this time with the support of the Luxembourg government. This article provides an overview of the implementation of both Vision Zero phases in Luxembourg.

The long-standing partners, the Luxembourg Accident Insurance Association (AAA), the Luxembourg Employers Association (UEL) and its National Institute for Sustainable Development and Corporate Social Responsibility (INDR), launched the Vision Zero occupational safety concept as a national strategy [1] for Luxembourg in 2016.

The Vision Zero kick-off in Luxembourg

The Vision Zero concept and the Vision Zero National Charter were officially launched in Luxembourg as part of the tenth anniversary edition of the annual Occupational Health and Safety Forum, in the presence of Their Royal Highnesses the Hereditary Grand Duke and Grand Duchess. The charter was signed by twelve national institutions: six ministries (Departments of Social Security, Health, Employment, Sustainability, Home Affairs and Civil Service), three national trade unions and the Vision Zero initiators (AAA, UEL and INDR[2]).

They all committed to a common and integrated approach, based on the "7 Golden Rules" of Vision Zero, to reduce the number and severity of work-related accidents, commuting accidents and occupational diseases in Luxembourg.

A national target was set to reduce the work-related accident incidence rate by 20 percent in the period 2016 to 2022 (from 5.37 percent in 2014) to 4.30 percent in 2022). Another objective was to continuously reduce the number of serious injuries and fatalities in work-related accidents.

Luxembourg-based businesses have since been encouraged to join the national Vision Zero community. This is a voluntary commitment to reducing the number and severity of work-related accidents, commuting accidents and occupational diseases.

Review of the first phase of Vision Zero (2016–2022)

The first Vision Zero activity report was produced in the form of a comprehensive brochure and multi-language infographic videos documenting Vision Zero's positive impact at national level. The cooperating national organizations and Luxembourg-based companies have both implemented a variety of awareness-raising measures and specific actions since the launch of Vision Zero.

Statistically speaking, the pandemic years 2020 and 2021 were exceptional years. Due to the numerous lockdowns, closures and shutdowns of certain activities, as well as widespread remote working, it was impossible to adequately assess the achievement of objectives. However, a promising 15 percent reduction of the incidence rate for work-related accidents was achieved in 2019.

The accident statistics for 2022, the last year of the review period, are currently not yet available. They are due to be published in autumn 2023.

1. https://visionzero.lu/de/ursprung
2. https://visionzero.lu/de/ursprung

> **The Occupational Health and Safety Forum has become a must-attend event in Luxembourg for company managers, occupational health and safety officers and all other stakeholders in this field.**

The second phase of Vision Zero (2023–2030)

Given the achievements of the first phase of Vision Zero and the significance of this issue, the initiators of Vision Zero (AAA, UEL and INDR) have decided to launch a second Vision Zero phase in order to continue the efforts in the area of occupational health and safety, with a special focus on risk sectors. The national Vision Zero strategy is now officially supported by the government (Government Council decision of 24 October 2022).

The following national targets have been established for the second period (2023 to 2030):

- A 20 % reduction in the national frequency rate of work-related accidents, all sectors combined, compared to 2019 (3.71 %), by directing a particular effort at risk sectors through the implementation of a set of more targeted actions
- Continued decrease in the number of serious and fatal accidents

Joining the Vision Zero strategy

Cooperating institutions and companies are encouraged to join the national Vision Zero strategy. Members' names are published on the Vision Zero web portal[3]. They receive a certificate of membership and are permitted to use the Vision Zero logo.

Vision Zero members are committed to the following objectives.

- Actively contribute to the achievement of national objectives
- Reduce the number and severity of work-related
- accidents, commuting accidents and occupational diseases
- Continue and intensify all the efforts already made in the field of occupational health and safety
- Provide a safe and healthy workplace for all employees and other persons working in the company, including contractors, temporary workers and visitors, on a continuous basis
- Promote and ensure effective management of health, safety and well-being at work in the spirit of a culture of prevention in companies
- Implement an action plan that takes into account the Four Principles and "7 Golden Rules" of Vision Zero
- Devote special effort to vulnerable employees, especially young employees, new recruits and the ageing population
- Communicate their commitment to occupational health and safety
- Anticipate and manage changes in the world of work, particularly in relation to digital, ecological and demographic transitions.

Media presence

Media campaigns[4] and regular media exposure are essential to generate awareness for the national Vision Zero strategy and a culture of prevention, as well as to encourage behavioural change in the area of occupational health and safety.

3. https://visionzero.lu/de/vision-zero-beitreten

4. https://visionzero.lu/de/medienkampagne

Impressions from Implementation of Vision Zero in the South Americas

Author

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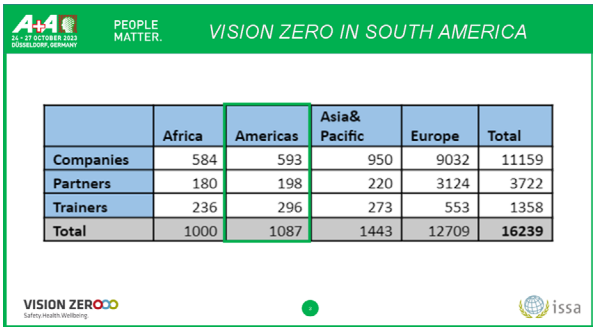
Vision Zero is a success story and every story has a beginning. My personal recollection of the story of Vision Zero is linked to the work of Helmut Ehnes in his role of Secretary General of ISSA Mining. I met Helmut during a visit he made to Chile in the early years of the decade of 2010 to promote Vision Zero in the Mining industry. According to different sources, the Vision Zero initiative started in 2008 with its adoption by DGUV, followed by ISSA Mining in 2012 and by BG RCI in 1014. In 2015 Vision Zero was subscribed by all Prevention Sections of ISSA and it went global in 2017 in the World Congress held in Singapore.

Since then, according to statistics available at the time of this presentation (Figure 1), over 16,000 companies, partners and trainers have pledged their efforts to sustain Vision Zero strategy in every continent.

Figure 1. *Commitment with Vision Zero worldwide – November 2023*



	Africa	Americas	Asia& Pacific	Europe	Total
Companies	584	593	950	9032	11159
Partners	180	198	220	3124	3722
Trainers	236	296	273	553	1358
Total	1000	1087	1443	12709	**16239**

Implementation of Vision Zero in the South Americas

Vision Zero in Peru

Minsur, a Peruvian mining company was the early adopter or Vision Zero in 2013. According to Belisario Perez, Corporate Health and Safety manager of Minsur, with Vision Zero strategy the company has achieved a 78% reduction in loss time injuries and ZERO fatal accidents between 2016 and 2022.

Professional associations (ISEM – *Instituto de Seguridad Minera del Peru* and IIMP- *Instituto de Ingenieros de Minas de Peru*) have supported Vision Zero adoption in mining companies in Peru.

Vision Zero in Argentina

The official launch was in March 2018, supported by the Superintendencia de Riesgos del Trabajo (SRT) with the signature of a Memorandum of Understanding (MoU) to promote Vision Zero in Argentina. The website of SRT has several documents to support the implementation of Golden Rule 4 – Ensure a safe and health system in micro and small companies and to provide them with best practices to prevention of accidents in their workplaces.

Vision Zero in Colombia

In September 2018 Vision Zero officially launched in Colombia with the support of Social Security institutions and Occupational Safety and Health consultants. In 2019 Vision Zero was adopted by Grupo Energia Bogota to reinforce their prevention strategy of serious and fatal accidents. Based on a two-phase plan with priority in risk mitigation, phase one started with 7 steps, followed by a 6 steps design for phase two. A three-year assessment of this strategy reports ZERO fatal accidents and a 68% reduction in loss time injuries.

Vision Zero in Chile

Vision Zero was introduced to the mining sector in Chile in 2012. *Mutual de Seguridad CChC*, one of the non-for-profit organizations that provides Health and Safety Insurance to Chilean companies subscribed Vision Zero in 2013 and two years later the Chilean Chamber of Construction (CChC) adopted Vision Zero as their strategy to control serious and fatal accidents in the construction sector. In November 2017 Vision Zero was officially launched at a country level with the support of the Ministry of Employment and Social Security.
CChC fatal accident control strategy included the signature of a written commitment by its members and a visible sign of their pledge by using a blue bangle with the words ZERO fatal accidents in Construction (Figure 2).

> **Over 16,000 companies, partners and trainers have pledged their efforts to sustain Vision Zero strategy in every continents.**

Figure 2. *Vision Zero bangle and photos of commitment to ZERO fatal accidents in Construction*

CChC has developed a website (cerofatales.cl) that provides multiple resources to support de implementation of Vision Zero in its associated construction companies. One of these resources is an annual report of fatal accidents in the construction sector, analized by type of construction process linked to fatal accidents and by the corresponding Golden Rule (GR) that can support prevention efforts.

Another initiative developed by CChC is a "Best Practice" annual contest for their associated companies. To support Vision Zero implementation, to entry the contest a best practice has to be aligned to one of Vision Zero-7GR.

Personal Impressions on implementation of Vision Zero in the South Americas

Based on our experience on implementing Vision Zero in South America my personal impression is that as a group of health and safety professional committed to "spreading the word" of Vision Zero strategy we must acknowledge the following key success facts:

- ⇨ Leadership is important - so is Followship. We need Leaders willing to "follow" the Vision Zero Strategy.
- ⇨ Government support is important - but it´s not enough.
- ⇨ Local OHS Professionals Associations are a key element of success. They can provide validation, support and dissemination of the Vision Zero Strategy.
- ⇨ Local Business Associations (Mining, Construction, Lime, Supply Chain, etc.) are vital for acceptance and implementation of the Vision Zero Strategy.
- ⇨ A Local Champion (a company with a sucess story) is a strong ally for implementing the Vision Zero Strategy.

Zero Falls from Trucks – Vision Zero in Transportation

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Key Facts

- Hidden risks for truck drivers: beyond driving, routine tasks like securing loads, working on superstructures or entering/exiting the vehicle expose truck drivers to various dangers, which result in significant accidents.
- TOP prevention approach: combining technical, organizational and personal measures, health and safety hazards are addressed through e.g., standardizations, guidelines, educational tools.
- Vision Zero Strategy: a combination of various activities raises awareness about the risks while utilizing existing preventive measures and developing new approaches to shape a safer future for the industry.

In the complex world of trucking, the occupational risks faced by drivers extend far beyond the road. Falls and accidents during routine tasks while working on and with commercial vehicles pose significant risks, emphasizing the need for heightened awareness. A comprehensive approach, integrating technical advancements, educational initiatives, and ongoing analyses, is key to creating a safer work environment and pave the way for a future where truck drivers can navigate their responsibilities with safety and wellbeing.

A truck driver's job is multifaceted, extending far beyond driving itself. While navigating traffic poses its own inherent risks, numerous additional hazards arise due to the wide range of uses and technical equipment of the vehicles. The alarming number of occupational accidents involving trucks suggests that achieving Vision Zero - a world without fatal and serious accidents and occupational illnesses - remains an ambitious goal. This article sheds light on the risks faced by truck drivers, particularly those related to falls from vehicles, and explores ongoing efforts to prevent such accidents.

John (32 years, married 2 children)
John works for a general cargo company. It is Monday morning. He was assigned to transport wood components to a customer. While securing the load, John fell from the vehicle and suffered multiple fractures. He was found unconscious next to his vehicle.

- *Slipping, stumbling, or stepping backwards while securing loads often results in falls from the loading platform!*

Emma (52 years, mother of 3)
At 9 am, Emma went to her truck and wanted to get into the cab in order to deliver drinks. In doing so, she grabbed the handle, which broke. She fell backwards onto the asphalt and broke her hip. Emma went to a clinic and required surgery.

- *It is not uncommon for falls to occur when getting in and out of the vehicle!*

Bill (48 years, married, 2 children)
Bill was securing lumber on his trailer for a paper mill using chains. In heavy rain and darkness, he stepped backwards and lost balance. Bill fell from the trailer and broke both arms.

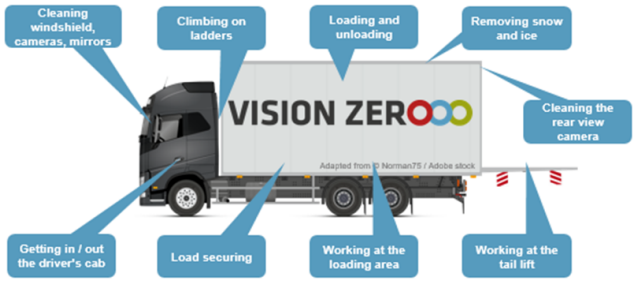
- *Again and again, workers fall from vehicle superstructures due to slipping, losing balance or stepping into empty space!*

> **Injuries can vary from minor sprains, resulting in just a couple of sick days, to more severe incidents causing back or head injuries and weeks of absence, and in some cases even fatal injuries.**

Dangers beyond Driving

Truck drivers like John, Emma and Bill exemplify the risks and dangers associated with their profession. John's fall while securing a load, Emma's incident while entering her truck and Bills accident due to stepping into the void highlight the often-overlooked risks involved in day-to-day tasks in their profession (see Figure 1). Falls from loading platforms and superstructures, slipping while securing loads and accidents during the entry and exit from the vehicle are prevalent and constitute a significant portion of work-related accidents.

Figure 1. *Hazards when working with commercial vehicles*



Facts and Figures

According to data from BG Verkehr, nearly 10% of the 60,000 work-related incidents registered annually involve falls, with two-thirds of these fall accidents occurring in conjunction with commercial vehicles. Road haulage, waste collection, movers, and transport logistics are the sectors most affected (Figure 2). The majority of falls are recorded during entering and exiting the driver's cab, as well as while working on superstructures, tail lifts, and loading platforms. Fortunately, many incidents resulted in only a short absence from work (i.e., 4 to 7 days). However, a relevant portion of these incidents led to an inability to work of more than 6 weeks (Figure 3).

Figure 2. *Percentage distribution of work-related fall incidents by trades (BG Verkehr)*

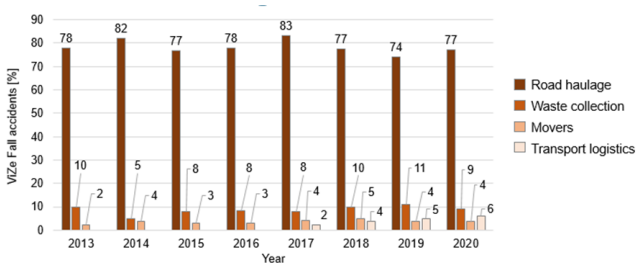
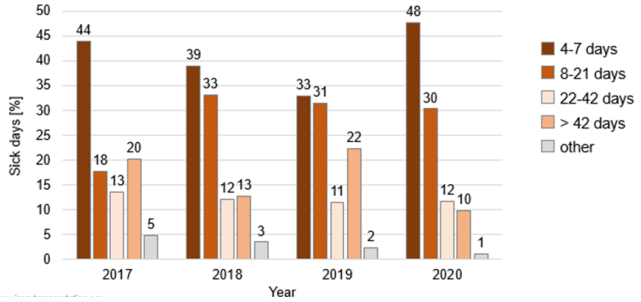


Figure 3. *Percentage breakdown of durations of work incapacity following fall accidents involving commercial vehicle (BG Verkehr)*



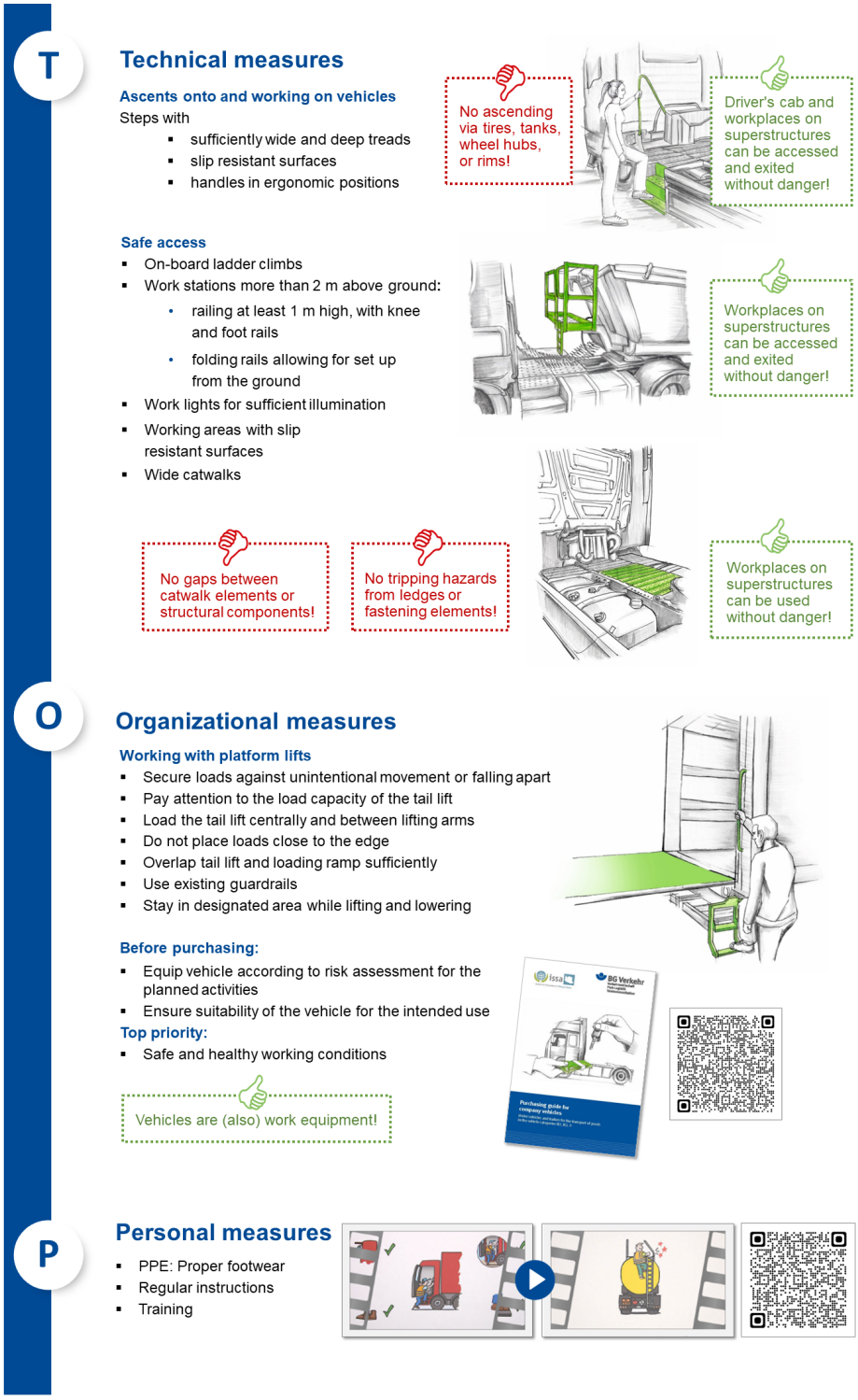
Deep Dive into analysing Fall Incidents

Due to the prevalence of incidents involving falls from loading areas, platform lifts, superstructures, and the driver's cab, two specialized surveys were developed to gain insights into the specifics of these accidents. Labor inspectors used these surveys to conduct accident analyses. Over the course of one calendar year, concluded in the winter of 2023, details of 244 fall incidents were gathered, with one quarter covering falls while entering or exiting the driver's cab. Preliminary findings suggest that falls from loading areas, tail lifts, or superstructures tend to be more severe than those from the driver's cab. Most falls from loading areas, platform lifts, or superstructures incidents were observed at third-party operations, while more fall incidents from the driver's cab occurred at construction sites and public traffic areas. Analysis of the collected data is still ongoing.

OSH Hierarchy – Implementation of Preventive Measures

Efforts to prevent falls from commercial vehicles must involve a combination of technical, organizational and personal measures. Guidelines emphasize technical safety features such as sufficiently wide and deep treads as well as easily accessible handles (Figure 4). Organizational measures include considering the vehicle's future use during procurement to ensure it is equipped with adequate safety measures [1]. Additionally, guidelines promoting the truck as a safe and healthy workplace aid in selecting appropriate safety features. Addressing behavioral factors contributing to incidents, such as absentmindedness and poor judgment, requires educational initiatives. For instance, stickers placed inside trucks remind drivers to wear proper footwear, or short instruction videos facilitate regular instructions based on the risk assessment and raise awareness about typical hazards [2,3].

Figure 4. *OSH hierarchy for implementing preventive measures, illustrating selected examples for the prevention of fall incidents from commercial vehicles*



The Vision Zero Strategy – Our Road to ZERO Falls from Trucks

To ensure that preventive measures have a lasting impact, it is essential to address all 7 levels of the so-called effect model of change [4], that is:

1 CAPTURING ATTENTION
2 RAISING AWARENESS
3 GARNERING ACCEPTANCE
4 IMPARTING KNOWLEDGE
5 INFLUENCING ATTITUDE
6 ENCOURAGING BEHAVIOR CHANGE
7 MODIFYING CONDITIONS

For instance, merely producing a booklet may capture attention and convey information, but it is unlikely to induce behavioral or environmental changes. However, when combined with other initiatives such as on-the-job training, repeated sensitization, and emotional engagement, attitudes and behaviors are more likely to be influenced. Moreover, with leadership support, improvements in working conditions become feasible. Therefore, our strategy for our Vision Zero Initiative „Falls from Trucks" employs a variety of activities and initiatives, including:

- disseminating information through websites, newsletters, and publications
- raising awareness through talks and presentations at trade fairs, trucker shows and conferences
- distributing branded giveaways
- discussing recent developments, legal issues and new technological trends with experts
- organizing industry conferences and symposia to get relevant stakeholders involved
- initiating standardization and other projects

To effectively influence human behaviour and foster lasting change, it is crucial to capture attention, raise awareness and cultivate acceptance for the issue at hand. Providing knowledge helps shape attitudes, ultimately influencing behavior and improving the work environment.

Conclusion

The risks faced by truck drivers extend far beyond the mere act of driving, requiring a comprehensive approach to ensure their safety, health and wellbeing. The Seven Golden Rules of the Vision Zero framework embody this holistic approach by addressing all levels of work and the organizational culture. While progress has been made in understanding and mitigating certain risks, sustained efforts and collaborative initiatives are crucial to achieving Vision Zero and ensuring the well-being of those who keep our supply chains moving.

Our Vision Zero Initiative aims at delving deeper into the underlying causes of accidents and developing innovative preventive measures. With the goal of understanding the intricacies of accidents during loading/unloading and cabin entry/exit, the ongoing analyses will provide valuable insights. Continued preventive efforts are imperative in fostering a safer work environment for truck drivers.

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[2] BG Verkehr. 2014. *Instruction video: Elevated workplaces.* (bg-verkehr.de Webcode 21147742).

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The Nordic Experience: The Vision Zero Forum in Finland

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The Vision Zero Forum in Finland

The Finnish Vision Zero Forum (Nollis®) is a network of workplaces that motivates and encourages workplaces to strive for high levels of safety and well-being at work.

The Forum is based on Vision Zero, a long-term commitment and positive attitude towards the continuous improvement of work, safety, health and well-being. At Nollis® member workplaces, improving safety at work is a continuous activity, regardless of the starting point.

The mission of the Forum is to:

- promote a positive safety culture;
- provide the latest information on safety trends in the workplaces;
- share benchmarking information and best practices;
- produce tools and materials for success at work;
- provide a national and regional network of members.
- When a workplace joins the Forum, it commits to the following:

- ▶ We commit ourselves to sharing information on best practices with other workplaces
- ▶ We will improve our workplace safety in co-operation with our employees and management
- ▶ Health and safety are an integral part of our workplace's successful business operations
- ▶ We commit ourselves to annually providing the Zero Accident = Vision Zero Forum's project team with information on occupational safety.

The Forum supports all types of workplaces through services and a network, regardless of the level of maturity of occupational safety and health in the workplace.

The Vision Zero Forum's annual Safety Level Certifications are based on criteria developed in consultation with member workplaces. The rating is based on factors such as the frequency and severity of accidents in the workplace, and the need to have a proper accident investigation and incident reporting procedure in place.

The Vision Zero Forum awards the occupational safety ranking annually to the workplaces that apply for it.

Safety Level Certifications awarded in year 2022

- ⇨ Level I - In the World's Forefront of Safety (54 workplaces)
- ⇨ Level II - Approaching the World's Forefront of Safety (36 workplaces)
- ⇨ Level III - Heading for the World's Forefront of Safety (20 workplaces)

According to the October 2023 member survey, the most important reasons for member workplaces to be part of the Finnish Vision Zero Forum are community, networking and peer support, getting ideas, sharing experiences and learning from others, ready-made materials, webinars, annual seminar gathering, regional networking, and company image and tradition.

History

The Finnish Vision Zero Forum was launched in November 2003 as part of the National Occupational Accident Prevention Programme in cooperation with the Finnish Institute of Occupational Health, the Ministry of Social Affairs and Health and the Centre for Occupational Safety. The original name of the forum was Zero Accident Forum as the focus of early days was mainly on the prevention of accidents. Along with the widening of Vision Zero thinking, the name was also changed to Finnish Vision Zero Forum. Since the end of the National

> **Genuine management commitment, resources and action are key to moving things forward in workplaces numbers.**

Occupational Accident Prevention Programme at the end of 2005, the Ministry of Social Affairs and Health has co-funded the Forum and the Well-being at Work Forum (2008-2011). Since 2007, an annual fee has been collected from member workplaces and from 2011 onwards, the activities have been financed exclusively by membership fees. The activities are coordinated by the Finnish Institute of Occupational Health.

Since its inception, the Forum was aimed at all workplaces interested in becoming world leaders in occupational safety. The Forum emphasizes the importance of safety as a competitive factor in the workplace. The aim was to integrate a Vision Zero approach into the day-to-day activities of workplaces. The cooperation motivates management and employees to continuously improve safety at work.

The idea was that the new forum would provide interested workplaces with material and tools to put safety and Vision Zero thinking into practice. In addition, good practices and examples from different organizations and workplaces will be made available to workplaces. International experts and experience were also to be drawn on.

The idea was that the workplaces committed to the Vision Zero Forum would lead the way on safety issues. By their example, they show that there are both ways and means to improve safety at work effectively. The Forum is open to all workplaces.

The Zero Accident Forum Steering Committee is made up of representatives of the Forum's member workplaces. They represent different sectors and groups of workers. The Steering Committee's tasks include presenting the views of the workplaces and strengthening cooperation, defining the conditions of membership of the Forum and major policies concerning its activities, deciding on the Safety Level Certifications, and developing the Forum's activities in cooperation with the member workplaces.

How Vision Zero is seen in Forum

Vision Zero is part of a responsible workplace. It means a long-term commitment and a holistic and positive approach to the continuous improvement of safety, health and well-being at work.

The purpose of Vision Zero is to:

- provide direction for the joint development of safety, health and well-being at work
- stimulate debate and create a common understanding of the importance of safety
- make development goals and objectives visible to the whole work community
- find new solutions for improving safety at work through cooperation - learning from each other and learning together.

Vision Zero is about people and cooperation, not numbers. At its heart, it's about caring about your own and others' health and safety - everyone has the right to get home from work in good health. Improving safety at work is about working together. In addition to cooperation within the workplace, it is also worth sharing experiences and ideas with other workplaces.

Vision Zero approach provides a strategic direction for promoting safety at work. However, mindset alone is not enough: we need good practices, smooth cooperation, areas for improvement and measures. Genuine management commitment, resources and action are key to moving things forward in workplaces.

The aim of the Vision Zero approach is to create a holistic approach to development: it is not only about accidents at work, but also about health, ability to work, job satisfaction, job performance and skills development.

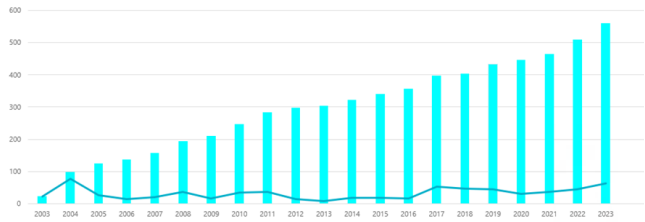
The Vision Zero Forum in numbers

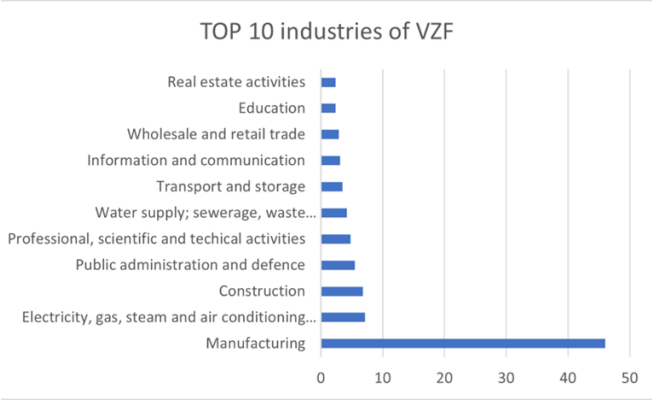
The Vision Zero Forum has 550 member workplaces from 55 different industries. The largest sector is manufacturing with 46%, followed by electricity and construction. The network reaches almost one in five Finnish workers.

Number of member workplaces by size

NUMBER OF PERSONNEL	NUMBER OF WORKPLACES
1-50	113
51-250	159
251-500	90
501-1000	71
1001-5000	59
5001-9999	13
10 000 -	10

Membership growth during 2003-2023

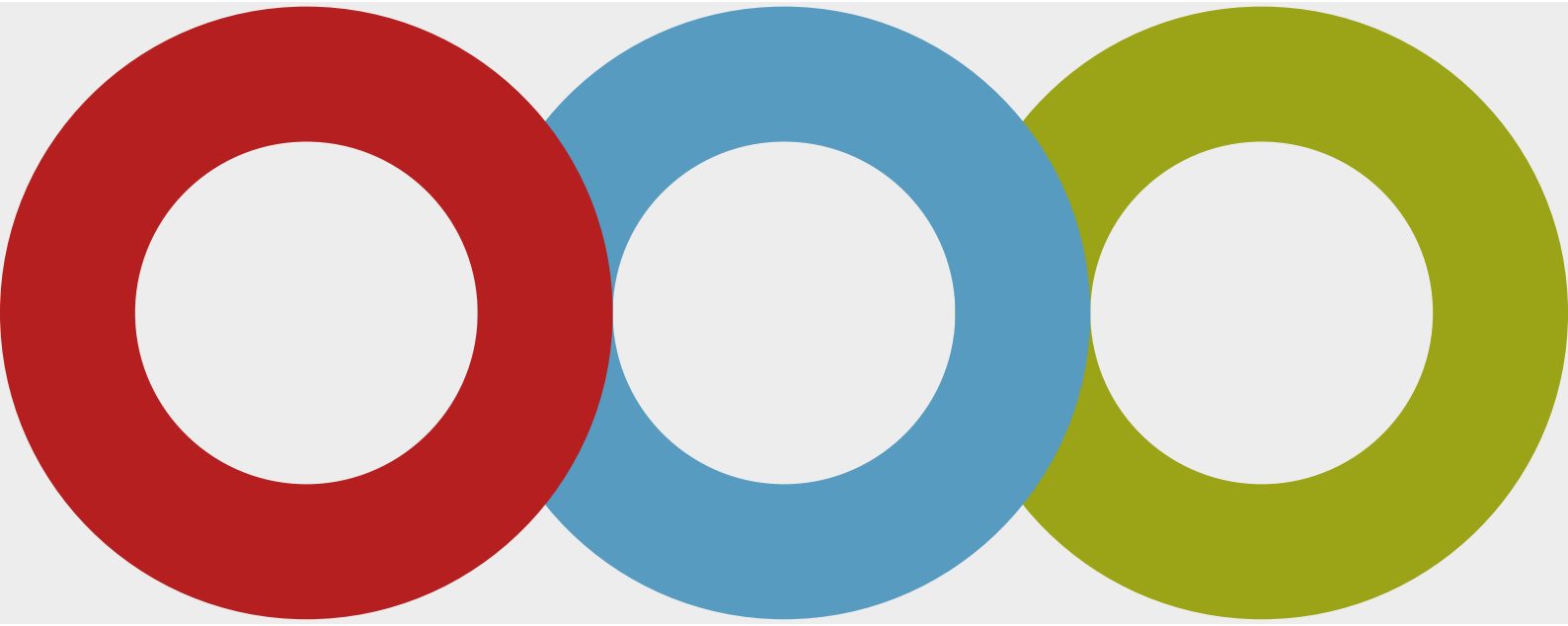




We estimate that, on average, there are fewer accidents in Forum workplaces than in other Finnish workplaces. According to the safety data reported annually by member workplaces, the accident frequency rate in the Forum workplaces appears to be more than 10 points lower than the general statistics of the Finnish Workers' Compensation Center (accidents per 1 000 000 working hours). The reporting accuracy in the Forum is based on one day of absence, compared to three days of absence in the general statistics.

Concluding Remarks

After 20 years, the Forum continues to grow in popularity. It is based on continuous development and renewal and on cooperation with the workplace. Workplaces are genuinely involved, not just one-way recipients.



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