

# VISION ZERO

## Measuring Performance: Safety Value Index

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PRACTICE



# 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.



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