DNV.GL



BUSINESS ASSURANCE

VIEWPOINT REPORT

Does Occupational Health & Safety matter?

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SAFER, SMARTER, GREENER



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Foreword

Over 7,600 people die from work-related accidents or diseases worldwide daily. These are persons who go to work every day, trying to earn a living, until an accident or incident occurs¹. This amounts to 2.78 million people annually, more than half of Norway's population. A further 374 million persons are estimated to suffer from workrelated injuries and illnesses.

The suffering and consequences for these workers and their families are incalculable. In economic terms, ILO (International Labour Organization) has estimated that 4% of the world's annual GDP is lost as a consequence to occupational diseases and accidents².

We read about individual accidents and fatalities in the newspaper, perhaps even know someone who has experienced one or the other. The added numbers of individual cases are staggering. Yet, many of these tragedies and incidents are preventable through the implementation of sound Occupational Health & Safety (OH&S) prevention measures, reporting and inspection practices. Increased legislation has been an important factor in improving conditions, in particular in certain geographies, the same goes for workers and stakeholder expectations. However, using recommended best practices and standards to build a structured approach will help companies safeguard workers, comply with legislation and generate additional benefits, regardless of size or geography.

Companies are facing increased pressure from stakeholders to ensure OH&S issues along global supply chains. This edition of the ViewPoint survey supports the notion that companies with a dedicated, structured and holistic approach benefit in multiple dimensions. However, even within our sample, there are differences among the companies and we see that perhaps small companies have much to gain. The primary driver seems to be safeguarding the well-being of workers and legislative compliance. But those leading the pack do much more and thus also seem to derive more benefits.

Companies in the sample appear to be aware that Occupational Health & Safety is, first of all, about people. Therefore, safeguarding the workers' well-being is the top driver for applying OH&S management. Laws and regulations come a close second, while geographical differences suggest that not only different legal frameworks and legal concerns, but also the maturity of legislation affects the balance between the two top drivers.

While there is a widespread awareness throughout the sample that an independent, objective OH&S management system certification is important, with tangible business benefits such as performance improvements, a gap can still be observed compared to the numbers of actually certified companies (which comprises 39% of the respondents).

The picture three years from now is quite dynamic and shows a trend toward continued or even more investments.

When breaking down the results for different types of companies, LEADERS (see definition on page 5), as well as OH&S certified companies, generally pull ahead compared with the average sample. Interestingly, a larger portion of companies within the LEADERS group are certified and see significant value from third party certification.

¹ http://www.ilo.org/global/topics/safety-and-health-at-work/lang--en/index.htm

² http://www.ilo.org/global/standards/subjects-covered-by-international-labour-standards/occupational-safety-and-health/lang--en/index.htm

Methodology and survey sample

The survey was conducted in March 2018. It involved 1,729 professionals from companies in the primary, secondary and tertiary sectors across different industries in Europe, North America, Central-South America and Asia.

The sample consists of DNV GL - Business Assurance customers and does not claim to be statistically representative of every company in their respective geographies, sectors and industries.

The questionnaire was administered using the CAWI (Computer Assisted Web Interviewing) methodology.

Based on responses from the survey, 39% of the companies in the sample have an occupational health and safety certification in place.

The sample includes 140 companies identified as LEADERS (8.1% of total sample) based on a list of attributes defined by DNV GL - Business Assurance.

North America	6%
Central and South America	5%
Europe	44%
Asia	42%
Other	3%

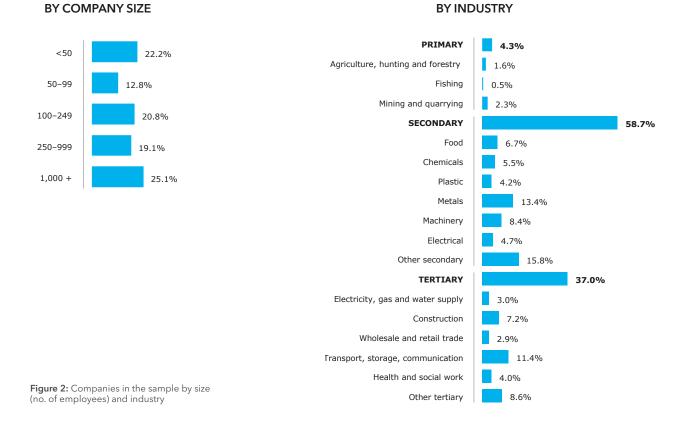


Figure 1: Geographic distribution of companies in the sample

Attributes of companies in the LEADERS group

The LEADERS are companies identified on the basis of the following attributes:

- OH&S issues are very relevant for the company's overall business strategy.
- When self-assessing maturity, the company claims to be a leading business in OH&S management.
- The company has undertaken at least one action, out of a provided list, to evaluate or mitigate risk.
- The company is able to rate the overall cost/benefit ratio of the mitigation actions undertaken.



Notes to the reader

- Green circles in charts highlight significantly above average data. Red circles highlight significantly below average data.
- DK/DA represents "do not know" and/or "did not answer".
- The charts report scores obtained by the total number of respondents, comparison with applicable 2014 survey results, by geographies, small companies, certified companies where applicable, and by LEADER(S).
- When the term LEADERS refers to the group of companies featuring the above-mentioned attributes, it always appears in capital letters.
- The term Certified Companies reported in charts refers to the 39% of respondents who have confirmed through the survey that they have an OH&S certification in place.
- The term Small Companies reported in charts is defined by companies having less than 50 employees.

- The term Large Companies reported in charts is defined by companies having more than 1,000 employees.
- For the reader's convenience, the word average has been used throughout the text to indicate mean scores for all respondents.
- Some questions asked in the 2014 version of the survey and repeated in this version have a different wording, which may slightly impact the comparison; these cases are marked with an asterisk (*) in the charts.

MAIN RESULTS

Well-being and regulations top the ranking

Safeguarding workers' well-being is the top driver (82%), with laws and regulations a close second (79%). The next drivers score significantly lower, with internal policy coming in third (46%).

Safeguarding the well-being of workers and laws and regulations are the primary drivers for all types of companies. Among small companies the workers' well-being scores 80% and laws and regulations 76%. For large companies, laws and regulations is the primary driver (87%) and workers' well-being scores 85%. Again, the next drivers follow at a distance, with the gap for small companies being significantly bigger than the average.

The top two drivers are mirrored at the geographical level. When it comes to laws and regulations, North America scores highest and Asia lowest. The difference could be explained by geographical differences in frameworks and legal concerns as well as legislative maturity levels.

In a global market, organizations need to demonstrate legislative compliance to interested parties, particularly customers, to be able to trade and guarantee business continuity. In Europe, where OH&S regulations are strict, companies are more likely to have addressed and incorporated measures to be compliant and therefore indicate regulation less of a driver. The high rating in North America could be explained by legislative maturity and legal culture. In Asia, attention to legislation is increasing and regulations are becoming stricter, which could explain why this is currently the primary driver.

There are many possible reasons to apply Occupational Health and Safety (OH&S) Management in an organization. What are the drivers for your company to apply OH&S Management?

Figure 3: Reasons and drivers for applying OH&S management

	TOTAL 1,729	Europe	Asia	North America	Central - South America	Small Companies	Large Companies	LEADERS
		n=730	n=692	n=102	n=87	n=345	n=390	n=140
Safeguarding the well-being of workers	81.5%	87.5%	(71.7%)	90.2%	88.5%	80.3%	84.9%	92.9%
Laws and regulations	79.4%	79.5%	76.6%	86.3%	83.9%	75.9%	86.9%	85.7%
Internal policy	45.5%	46.6%	41.0%	50.0%	56.3%	37.4%)	59.2%	61.4%
Business continuity	35.2%	29.6%)	36.7%	46.1%	42.5%	27.2%)	41.5%	47.9%
Brand reputation	34.1%	32.5%	31.8%	33.3%	40.2%	28.4%	48.7%	55.7%
Relations with employees/unions	33.1%	31.4%	31.5%	41.2%	36.8%	22.9%	43.8%	49.3%
Needs/requests from customers	32.7%	31.9%	34.5%	(28.4%)	25.3%)	28.4%	35.4%	42.9%
Safeguarding the company assets	31.8%	27.0%	30.2%	49.0%	37.9%	29.6%	38.2%	47.1%
Economic	31.5%	34.1%	22.5%)	54.9%	28.7%	22.0%	43.6%	49.3%
Competition or competitive advantage	25.7%	22.7%	28.3%	24.5%	25.3%	(18.8%)	34.4%	33.6%
Safeguarding property and top management	24.8%	22.2%	23.6%	35.3%	18.4%	21.2%	30.3%	40.7%
Public concern	19.6%	(14.0%)	23.7%	21.6%	13.8%)	(13.3%)	29.5%	33.6%
Relations with contractors	17.2%	15.5%	17.2%	22.5%	13.8%)	16.5%	22.3%	34.3%
Requests from private/public insurance companies	12.1%	9.9%	9.0%	35.3%	11.5%	9.9%	16.7%	20.7%

HOW ARE LEADERS DIFFERENT?

LEADERS appear to have a more structured, integrated and multi-dimensional approach. The top two drivers mirror the average, but LEADERS score significantly higher for the next 7 drivers, all close to or above 50%. Large gaps compared to the average can be seen for brand reputation (56% vs 34%), economic factors (49% vs 32%), relations with contractors (34% vs 17%), internal policies (61% vs 46%) and safeguarding property and top management (41% vs 26%).



Does safeguarding employee well-being help improve stakeholder relations?

2.78 million persons every year. This is about the entire population of a capital like Rome or Buenos Aires and equals the number of work-related fatalities worldwide each year as estimated by ILO (the International Labour Organization).

Occupational Health & Safety may not have been top of the agenda everywhere in the past, but it is increasingly gaining attention, prompted by the publishing of articles such as "Five Years after Rana Plaza Disaster, Are Asia's Sweatshops a Thing of the Past?" (South China Morning Post, 21 April 2018).

The article circles around the Savar Building collapse at Dhaka's Rana Plaza, Bangladesh in April 2013. A total of 1,134 people died and approximately 2,500 more were injured, most of them workers in ramshackle sweatshops within the building. The Rana Plaza Disaster is seen by many as the point of no return for OH&S awareness. Companies started including stricter OH&S provisions in their Suppliers Codes of Conduct and auditing the implementation more closely. Regulations and standards became stricter, as well. The SA 8000 third-party certification scheme was revised in 2014, while the SMETA methodology for social/ethical audits on suppliers was revised in 2014 and again in 2017.

Stakeholder pressure is increasingly relevant and expected to further increase. A recent ViewPoint report on sustainable supply chain management (February 2018) indicated B2B customers as the most relevant key driver for taking action (76%) while suppliers ranked fourth with 27%. Final consumers scored 22% followed by employees and investors. When it comes to achieved benefits, the improved ability to meet customer needs ranked highest with 49% and improved relationship with stakeholders as close follower at 41%. The area that most companies had addressed (53%) in their own supply chain to improve sustainability was safeguarding the health and safety of workers. In the present study (published in June 2018) on Occupational Health & Safety, we see that safeguarding the health and safety of workers is one of two primary drivers and objectives in applying OH&S management. Addressing stakeholder needs and requests do not seem to be a primary driver, at first glance. Companies appear more focused on such issues as laws and regulations (79%) or internal policies (46%) and most of all safeguarding the well-being of employees (82%). However, a closer look shows signs of a growing correlation between Occupational Health & Safety and stakeholder relations.

The relevance attributed to brand reputation is an indicator of pressures, especially from external stakeholders. When asked to identify the key drivers to implement an OH&S management system (Figure 3, page 7), respondents rank this parameter fifth (34%).

When we observe the group of companies called LEADERS, we see that they reinforce the correlation as they rank significantly above average in all dimensions. In particular, they stand out for their focus on brand reputation with 56%, relations with employees and unions scores 49% and needs and requests from customers scores 43%.

The benefits achieved from mitigating actions of identified risks (Figure 6, page 12) also suggest that a structured OH&S management system can help improve stakeholder relations. On average, improved relations with employees ranks third (58%) while the LEADERS score is 83%. When it comes to improved relations with authorities, the average score is 33% while LEADERS score 56%. LEADERS score improved relations with stakeholders 53% versus 25% on average.

When looking at the benefits of an OH&S certification (Figure 12, page 20), respondents indicate that it improves relations with the internal stakeholders. In fact, 74% indicate improved commitment from management and 72% indicate employee engagement. As to external stakeholders, the ability to meet stakeholder requirements scores 70% and better relations with relevant authorities follow with 66%. Improvement of public image and brand reputation and communication with stakeholders follow. Interestingly, all stakeholder-related items score above 60%.

There is an increased awareness and pressure on companies to ensure OH&S issues along global supply chains. Supply chain sustainability is strongly linked to safeguarding the well-being of workers. Moreover, both ViewPoint surveys seem to indicate that the focus among companies both on ethical and operational safeguarding of workers' health and safety is correlated with improved relations with internal (management, workers) and external (authorities, customers, suppliers, end consumers) stakeholders and can support increased brand reputation.

Main occupational health and safety risks

Companies agree upon the fact that main risks arise from machines and equipment (66%) and the working environment (62%). These risks for these two operational areas are considered to be higher than those following, such as risks from the organization of work (41%), risks from ergonomic factors (40%) and risks from electrical safety (39%).

Small companies mirror the top two but with lower scores. They are significantly lower on most risks, except for risks related to the working environment where they are almost equal to the average. Large and certified companies stand out, with scores significantly higher than average.

The two top-ranking risks are those showing the highest increases compared to the 2014 survey.

While wording in the 2014 survey was slightly different, the double-digit increases suggest a positive trend. Risks from machines and equipment grew by 29 percentage points and risks from the working environment grew by 32 percentage points. This may be due to more specific legislation related to machines and work environments in addition to companies experiencing increased concentrations of injuries and health problems caused by work environments.

North American scores seem to indicate the perception of a higher risk picture, as several scores are above average. Asia features a higher score for risks from the working environment (66%) but scores below average for several other areas, indicating a lower perception of risks.

	TOTAL 1,729	2014	Europe	Asia	North America	Central- South America	Small Companies	Large Companies	LEADERS
			n=730	n=692	n=102	n=87	n=345	n=390	n=140
Risks from machines and equipment	66.0%	+28.5%	66.3%	64.9%	66.7%	74.7%	54.5%	74.9%	77.9%
Risks from the working environment	61.6%	+32.4%	58.5%	65.6%	55.9%	52.9%	58.3%	67.2%	66.4%
Risks from organization of work	40.6%	+2.2%	37.5%	41.9%	51.0%	29.9%	33.9%	45.9%	48.6%
Risks from ergonomic factors	40.1%	+1.1%	47.0%	26.6%)	62.7%	56.3%	35.7%	47.2%	55.0%
Risks from electrical safety	38.9%	+16.4%	36.3%	39.6%	45.1%	36.8%	29.0%	50.3%	52.1%
Risks from the presence of physical agents	35.7%	-0.9%	39.3%	29.2%)	40.2%	48.3%	29.0%	43.6%	44.3%
Risks from fire/explosion	35.5%	+0.7%	31.8%	37.3%	35.3%	39.1%	25.2%	47.4%	46.4%
Risks from handling hazardous materials, etc.	35.2%	+1.4%	33.2%	34.2%	43.1%	34.5%	25.8%	46.4%	50.0%
Risks from difficult working conditions	29.4%	+13.7%	32.5%	24.1%)	28.4%	29.9%	22.6%	44.1%	51.4%
Risks from chemical agents	28.6%	-3.0%	30.7%	23.3%)	33.3%	42.5%	21.4%	36.9%	40.7%
Risks from psychological factors	21.4%	+0.6%	19.7%	22.7%	21.6%	(13.8%)	22.6%	25.9%	25.7%
Risks from the presence of carcinogens/mutagens	9.6%	+0.3%	10.8%	6.6%	13.7%	10.3%	6.1%	13.6%	20.0%
Risks from the presence of biological agents	7.1%	=	7.8%	4.6%	12.7%	9.2%	7.0%	10.5%	12.1%

Please select the main risk areas in your company related to Occupational Health and Safety.

Figure 4: Main occupational, health and safety-related risks

A THOROUGH PICTURE

The top two risks for LEADERS are the same and they score significantly above the average in all areas except one. Large gaps can be seen for some of the areas, where LEADERS appear far more aware of the risks from difficult working conditions compared to the average (51% vs 29%), risks from ergonomic factors (55% vs 40%), as well as risks from handling hazardous materials (50% vs 35%).

Actions undertaken

The top two actions undertaken, indicated by companies to be very effective, reflect the operational nature of the two main risk areas indicated by companies in the survey. Regular maintenance of premises, equipment and facilities scores 41% and emergency measures scores 40%. Information and training of employees scores 37%. Europe and North America indicate that both regular maintenance of premises, equipment and facilities as well as emergency measures are significantly above average. Fewer companies in Asia indicate that implemented actions are very effective, with wide gaps for the top two actions.

Please select the actions undertaken so far to evaluate or mitigate the above identified risks and rate the actions based on the evaluation scale

Figure 5: Effectiveness of actions to evaluate and mitigate risks

% very effective	TOTAL 1,729	Europe	Asia	North America	Central- South America	Small Companies	Large Companies	LEADERS
		n=730	n=692	n=102	n=87	n=345	n=390	n=140
The regular maintenance of premises equipment, facilities		47.9%	(31.4%)	48.0%	31.0%	37.7%	44.6%	72.9%
The emergency measures to be taken in case of firs aid, fire fighting and evacuation		45.2%	32.4%	51.0%	28.7%	33.9%	48.7%	72.1%
Information and training for workers, managers supervisors and employee representatives		41.0%	31.9%	36.3%	29.9%	35.7%	42.6%	70.0%
The assessment of all risks to health and safety	34.6%	41.4%	(25.6%)	33.3%	36.8%	31.3%	43.6%	77.1%
The medical surveillance of workers, the withdrawa of workers from jobs exposed to risk due to health reasons and their assignment to another jol	32.0%	37.9%	25.0%	28.4%	31.0%	27.2%	36.7%	60.0%
Giving priority to preventive and collective protection measures compared to personal protective equipment and correction measures	30.8%	34.2%	(26.4%)	30.4%	32.2%	26.1%	35.1%	62.1%
The participation and consultation of workers	29.0%	31.9%	25.3%	32.4%	26.4%	26.4%	34.4%	56.4%
A management system or a prevention program tha covers all the organization's technical and production requirement:	1 28.7%	33.4%	20.8%	40.2%	29.9%	25.2%	35.6%	65.7%
The issuance of procedures aimed to ensure health safety as from the design phase of a product		24.8%	22.4%	29.4%	27.6%	22.0%	32.1%	60.0%
Minimizing the number of workers who are or who may be exposed to risl		25.1%	21.4%	39.2%	25.3%	20.0%	31.3%	55.0%
The transfer of risk	10.4%	8.4%	12.6%	11.8%	5.7%	9.3%	12.6%	23.6%

A BROADER SET OF ACTIONS

LEADERS score significantly higher percentages for all actions. When comparing the top two actions to the average, we see that regular maintenance of premises, equipment, facilities scores 73% vs 41% and emergency measures 72% vs 40%. This indicates that LEADERS perceive these actions to be very effective close to double compared to average companies. Overall, LEADERS seem to draw a much higher degree of effectiveness from the actions undertaken.

Achieved benefits from implemented actions

Companies seem to derive benefits from their mitigating actions of identified risks. The areas where companies perceive benefits to be the highest are improved ability to comply with legal and other requirements (75%) and the decrease of incidents/ injuries (65%). This picture mirrors the drivers to apply OH&S management. Improved relations with employees scores 58%.

When breaking down the results for the different types of companies, they vary slightly among small, large and certified companies. Large and certified companies stand out with scores well above average and seeing more benefits across multiple dimensions. Small companies seem to benefit less from the undertaken actions. In addition, the results reinforce companies' strong emphasis on legal compliance and working on safeguarding the well-being of workers for all types of companies. Europe mirrors the top 3, but seems to score lower on competitive advantage and increased brand equity. This could indicate that Occupational Health & Safety is a prerequisite that is expected of them rather than a differentiator. Asia mirrors the top 3, but with lower scores. Competitive advantage and increased brand equity score significantly higher than the average, which may be due to Asian countries emerging economies needing to affirm their brand and consolidate their competitive advantage in a global market. North America mirrors the top 3 and companies seem to derive a higher degree of financial savings from their actions.

What benefits did your company achieve from the mitigation actions undertaken?

Figure 6: Benefits achieved from mitigation actions of identified risks

	TOTAL 1,729	Europe	Asia	North America	Central- South America	Small Companies	Large Companies	Certified Companies	LEADERS
	- , -	n=730	n=692	n=102	n=87	n=345	n=390	n=645	n=140
Improved ability to comply with legal and other requirements	74.7%	75.9%	71.5%	74.5%	79.3%	67.2%	80.0%	85.6%	90.7%
Decrease of incidents/injuries	64.5%	66.6%	58.4%)	71.6%	77.0%	49.0%	79.5%	79.1%	87.9%
Improved relations with employees	58.4%	55.8%	58.8%	65.7%	66.7%	50.7%	64.6%	64.8%	82.9%
Improved relations with authorities	32.6%	31.2%	30.5%	33.3%	39.1%	21.4%	44.6%	47.1%	55.7%
Improved relations with other stakeholders	25.0%	25.5%	22.5%	21.6%	25.3%	19.1%	35.4%	38.8%	52.9%
Financial savings	24.8%	24.9%	21.2%	39.2%	18.4%	18.8%	32.8%	32.4%	47.1%
Competitive advantage	21.7%	16.3%)	27.7%	14.7%	24.1%	16.8%	27.7%	34.7%	40.0%
Shareholders' satisfaction	20.6%	20.8%	17.3%	(15.7%)	42.5%	13.3%	25.9%	33.0%	42.1%
Improved relations with unions	19.2%	18.6%	18.6%	(12.7%)	33.3%	5.8%	31.3%	27.3%	36.4%
Increased brand equity	18.9%	(13.4%)	26.3%	9.8%	(13.8%)	12.5%	25.9%	29.0%	35.0%
Market (e.g. increase in market share)	5.1%	3.3%	7.8%	1.0%	4.6%	2.6%	8.2%	10.1%	12.1%

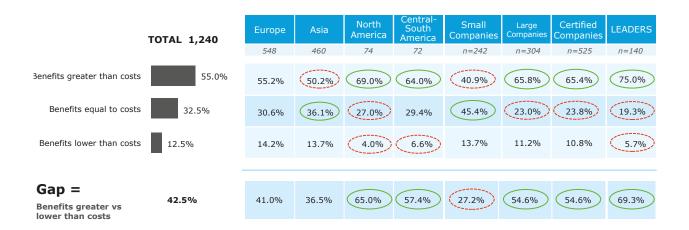
When asked about the cost/benefit of their mitigating actions, 55% indicate that benefits are greater than costs. A total of 32% respond that benefits are equal to costs, while only 13% indicate benefits to be lower than costs. The cost-benefit gap on average is 43%.

Certified companies see benefits to be greater than cost at a higher rate (65% vs average 55%) and when comparing benefits greater than cost versus lower than cost, there is a 12 percentage point gap versus the average. This indicates that the management system seems to support them in achieving their objectives, in particular when it comes to legal compliance and safeguarding workers. Small companies seem to benefit less from their investments, which mirrors the question on benefits from mitigation actions (figure 6) where results show they seem to benefit at a lower rate from the undertaken actions.

Companies in North America indicate returns on investments to a higher degree than the other geographies, and it is the region with the highest cost-benefit gap.

How would you rate the overall cost/benefit ratio of the mitigation actions undertaken?

Figure 7: Cost/Benefit ratio



A HIGH RETURN ON INVESTMENT

LEADERS derive more benefits from mitigation actions than the average. Except for increase in market share (7 percentage points), all benefits score at least 10 percentage points or more above the average. LEADERS consistently perceive a higher effectiveness of their mitigating actions. Therefore, it is not surprising that they indicate a higher degree of benefits from their efforts, and 75% of LEADERS indicate benefits to be greater than costs. This is significantly above average, with a cost-benefit gap of 69% versus the average of 43%.

Relevance of OH&S for business strategy

When looking at how companies approach Occupational Health & Safety from a strategic perspective, 50% respond that it is relevant to a great extent to their overall business strategy today. When looking at those responding to a great extent and to some extent, the number increases to 86%.

Large and certified companies see a higher relevance of OH&S issues to their overall business strategy. A total of 62% of the large companies and 63% of certified companies find it relevant to a great extent. For both categories, as many as 91% indicate great or to some extent. When looking 3 years ahead, there is a significant growth in importance with over 75% of both large and certified companies indicating that OH&S issues will be relevant to their overall business strategy to a great extent. Small companies overall indicate much less relevance of OH&S issues to their business strategy. Numbers indicate that those who see relevance to a great extent will increase from 43% to 56% in the next three years. While this is significant, it is still not enough; only a little more than half of the small companies see OH&S issues relevant to a great extent.

All geographies except Asia score significantly higher when looking at those responding to a great extent, and this picture does not change much when combining those answering to a great extent and to some extent. All geographical regions indicate an increased strategic relevance and with the growth distribution more or less mirroring today's picture. However, it is worth noting that the region indicating the highest growth is Asia with 18 percentage points.





What is behavior-based safety?

Behavior-based safety (BBS) is the application of science of behavior change to the real-world safety problems. It can be seen as a process that creates a safety partnership between management and employees which continually focuses people's attentions and actions on their own and others' daily safety behavior. The approach focuses on what persons actually do and therefore is observable. When applying behavioral-based safety approaches, DNV GL auditors focus on observation, understanding and analyzing behavioral changes, not only the rules and instructions meant to govern them.

How does adding behavioral-based safety differ from or complement a pure management system approach? A basic management systems is based on procedures, rules and structure and includes mechanics that recommend actions at every process phase (design, production, etc.). A system based purely on reacting to situations does not naturally nourish improvement through behavioral performance.

Behavior-based safety requires management to take a broader view of the procedures in their management system to reflect and analyze on how to improve further by understanding and influencing people's behaviors. This approach pushes managers to question the involvement and commitment to the system they have in place.

Constantly monitoring and addressing behaviors beyond procedures is a requirement, at every moment. The aim is to apply a "security filter" in all aspects of the employees' daily tasks, where one can intervene and communicate effectively and when required. The concept is to create a mindset embedded in a permanent behavior.

Why use behavior-based safety and when?

Organizational and technical maturity dictates whether or not a company can successfully implement a behavior-based safety program. Prevention fundamentals are a pre-requisite to manage regulatory compliance and technical compliance of equipment, for example. Implementing a management system can be one means of structurally addressing risks and assuring compliance. Once an organization reaches this maturity stage, it is ready to and would benefit from continuing its journey by working on the human aspects and behaviors of the employees. The need to and benefit of applying behavior-based safety measures often become striking when a company suffers serious accidents, despite having occupational health and safety measures and systems in place. It seems to highlight the need for something in addition.

The maturity and commitment of the management team is essential to build a solid behavior-based safety approach. Experience among our DNV GL auditors is that top management must be truly involved. Companies where management are aware and concerned only, not being involved at the level required, tend not to capitalize on adding a behaviorbased approach.

What are the benefits?

A behavior-based safety program brings some very tangible and lasting impact on companies who fully engage and are committed enough to evolve using this approach:

- Developing of a more strategic vision within the company
- Transforming from a discipline-based to a conviction-fuelled commitment
- Development of best practices to be used as a model
- Evolving the safety culture
- Transforming intentions into acts
- Sharing a common safety culture across the organization's departments

Companies embarking on this journey need to be patient to reap the rewards of their investments. Improvements do come, gradually, but will eventually be quantifiable. Thus, development of a behaviourbased safety culture requires a full and visible commitment from top management to the board of directors.

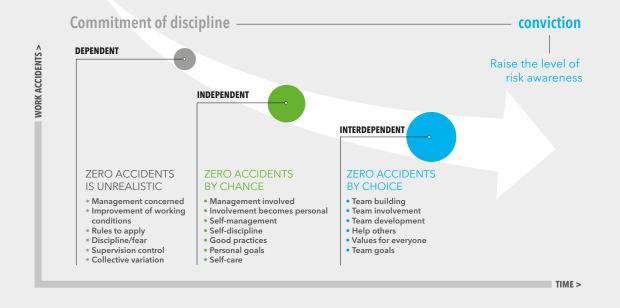
What industries or type of companies would benefit the most?

Industries that are more exposed to risk have been well identified, but the behavior-based safety approach can and should be embraced by any type of enterprise, irrespective of their size or activities.

It applies to and can be deployed both at individual sites and across multi-cultural and international group levels.

Today, the countries or regions where more companies are moving in this direction are those where there is an occupational health and safety framework in place. This means geographical areas with clear regulations and administrative monitoring, such as the United States, Europe and certain countries in Asia.

In addition, there is a growing interest from companies in certain African countries to pursue this approach and these organizations are moving quickly because they have understood the sustainable, socioeconomic benefits they can derive.



HOW CAN I START?

Companies about to start on their behavior-based safety journey should first consider and determine the true purpose behind approaching a safety culture enhancement project. It is not feasible to adopt a one-size-fits-all strategy and standardized activities. A tailored approach, taking into account the internal context, provides the best chance of success. Expert guidance could add significant value, but it is necessary to have internal ownership, management commitment and participation of people from all hierarchical levels (managers, middle managers, supervisors and workers).

The knowledge and information gained from a behavior-based approach and a safety culture assessment can support in the process of improving health and safety management system processes and practices, adapting them to the existing culture, and eventually leading to better occupational health and safety performance.

OH&S maturity levels

When asked about their perceived occupational health and safety maturity level on a scale from discovering to leading, 4% rated themselves as discovering while 13% indicated that they are at the other end of the scale as leading. Most companies rate themselves at maturity levels in the middle of the scale. A total of 25% rate themselves as building and 40% as developing.

When asked about where they see themselves three years from now, there is a significant increase in companies rating themselves as leading with an increase of 21 percentage points (growth from 13% to 33%). Overall, companies seem to indicate a shift upward in the maturity ladder.

When it comes to maturity levels by geographies, Europe and Central-South America seem to largely mirror the average. North American companies indicate a higher maturity level than the average, while Asian companies seem to indicate a lower overall maturity level compared to the average. Looking 3 years ahead, Europe and Central-South America expect a significant increase in companies who are leading. Asian companies show a positive shift in maturity but still at a lower rate compared to the average. North American companies continue to indicate improved maturity levels, with companies considering themselves leading 3 years from now and scores significantly above average.

Assessing themselves as a leader in OH&S management was one of the defining attributes of the LEADERS group.

From an OH&S management maturity point of view, where would you position your company on a 5-point development scale?

Figure 9: OH&S maturity levels

Current situation

TOTAL	1,536	Europe	Asia	North America	Central- South America	Small Companies	Large Companies	Certified Companies	LEADERS
		n=656	n=613	n=90	n=78	n=317	n=350	n=579	n=140
discovering	4.2%	2.6%	6.0%	4.4%	3.8%	7.6%	1.4%)	0.9%)	\bigcirc
starting	13.6%	12.0%	18.0%	(4.4%)	12.8%	20.2%	8.0%)	4.3%)	\bigcirc
building	25.3%	22.3%	29.7%	(17.8%)	25.7%	28.7%	16.6%)	(19.8%)	\bigcirc
developing	40.0%	45.9%	(33.1%)	44.4%	37.2%	(30.5%)	51.4%	54.7%	\bigcirc
leading	12.5%	14.5%	7.8%)	23.4%	18.0%	7.0%)	19.7%	19.4%	100%
don't know	3.8%	2.8%	5.4%	5.6%	2.6%	6.0%	2.9%	0.9%	\bigcirc

3 years from now

TOTAL	1,590	Europe	Asia	North America	Central- South America	Small Companies	Large Companies	Certified Companies	LEADERS
		n=690	n=624	n=87	n=81	n=321	n=364	n=600	n=129
discovering	1.0%	0.7%	1.6%	1.2%	-	1.5%	0.9%	0.3%	0.8%
starting	5.0%	4.0%	7.5%	1.2%	2.5%	9.4%	1.6%	1.2%	-
building	14.9%	13.0%	19.0%	8.1%)	11.1%	22.5%	7.2%)	6.9%	-
developing	38.0%	40.3%	38.6%	34.5%	30.9%)	37.1%	34.9%	35.8%	4.7%)
leading	33.0%	35.8%	24.5%)	40.2%	51.9%	(18.1%)	50.2%	51.3%	91.4%
don't know	7.0%	6.1%	8.8%	14.9%	3.7%	11.5%	5.2%	4.5%	3.1%

Intention to invest

Companies seem to recognize the need to invest in OH&S management and will continue to do so over the next three years. A total of 97% indicate that they will keep investing more than today (43%) or same as today (55%). Only 2% indicate that they plan to invest less than today in the next three years.

Companies with a certified OH&S management system indicate a higher intention to invest. A total of 47% vs average 43% indicate that they intend to invest more than today over the next three years.

In Central-South America 59% of the companies indicate that they will invest more than today compared to only 38% in Europe, while 60% confirm they will continue current investment levels. For European companies the tendency has been to maintain good levels of investment and the experience is that many have already significantly invested in Occupational Health & Safety. As indicated earlier in the report, European companies are subject to strict regulations and a high level of attention is expected. While in Central-South America, companies need to invest to implement BATs (Best Available Technique) if they want to compete with their European counterparts.

When comparing with the 2014 survey, there seems to be a clear tendency to continue and even increase investments in OH&S management. Overall, those who intend to continue the current investment or increase it in 2014 amounted to 96% and in the current survey this grew to 97%. When comparing those who intend to invest more in the next three years, there is a growth of 5 percentage points from 2014 to 43% in 2018.

ls your company g	oing to invest in C	OH&S in the	e next thre	e years?			Fi	gure 10: Inte	ention to inve	st in OH&S
	TOTAL 1,413	2014	Europe	Asia	North America	Central- South America	Small Companies	Large Companies	Certified Companies	LEADERS
			n=640	n=520	n=74	n=75	n=282	n=327	n=579	n=133
More than today	42.5%	+5.2%	(37.9%)	41.8%	44.6%	58.7%	33.3%)	51.7%	47.0%	(36.1%)
Same as today	54.7%	-3.8%	60.0%	54.5%	55.4%	(38.6%)	63.2%	(47.1%)	51.2%	63.2%
Less than today	1.5%	-1.2%	1.4%	1.6%	-	-	0.7%	1.2%	1.3%	0.7%
No investments at all	1.3%	-0.2%	0.8%	2.1%	-	2.7%	2.8%	-	0.3%	-
Gap = (More-Less & No Investment at a	41.2%	+8.1%	37.1%)	39.7%	44.6%	56.0%	30.5%)	51.7%	46.7%	36.1%)

CONSOLIDATING RESULTS

Most LEADERS are focussed on maintaining the same investment levels (63% vs average 55%). The share of LEADERS that plan to increase the investment is 36% vs 43%. This seems to follow the notion that companies with higher maturity levels have already made considerable investments in the past years.

The value of certification

When asked about certification by an independent third party, 76% of the respondents strongly agree or fairly agree that this adds value to their organization and stakeholders.

Only considering the share of companies who responded strongly agree, 35% on average answer positively.

Certified companies indicate that certification adds value to a high degree. A total of 59% strongly agree and 93% strongly or fairly agree. Small companies indicate much less value from certification (23%); they are also certified at a smaller rate (only 19% of the total sample).

3%

of certified companies strongly or fairly agree that certification adds value

To what extent do you agree with the following statements: Ensuring that our OH&S Management System is **certified by an external independent party adds value** to our organization and our stakeholders.

Figure 11: Value added of OH&S certification



HIGHER PERCEPTION

LEADERS see greater value in being certified by an independent party. The share of LEADERS acknowledging the value of an OH&S certification is higher than the average (87% vs 76%). When breaking down the numbers, the gap widens. LEADERS who responded strongly agree amount to 59% vs average 35%. This supports that they have a clear vision, defined strategy and effective planning system. With a more mature management system and ability to plan, execute, monitor and measure they have a solid foundation to achieve their OH&S objectives in addition to managing legal compliance.

Benefits achieved from certification

Looking at the top 5 ranking of perceived benefits from certification indicates that an OH&S management system generates benefits beyond safeguarding people and assuring compliance. While the top benefit is the ability to meet legal requirements (77%), performance improvement (75%) and commitment from management (74%) follow closely. The next two benefits are employee engagement (72%) and ability to meet stakeholder's requirements (70%).

Going further down the list, it is interesting to see that the next seven benefits are rated above 50%, including some derived from safeguarding employees such as the achievement of strategic objectives (65%), improvement of public image/ brand reputation (63%) and financial benefits through reduced costs (53%).

Companies in Europe and Asia follow somewhat the average trend when it comes to their benefit rating. It should, however, be kept in mind that the share of certified companies in Europe is 46% vs average 34% in Asia. North America is generally below average while Central-South America is generally above. It should be noted also that the share of certified companies is 25% in North America and 35% in Central-South America.

Based on your experience and perception, please rate the relevance of benefits achieved from certification of your company's OH&S management system

Figure 12: Benefits of an OH&S certification

% Somewhat relevant + highly relevant	TOTAL 1,519	Europe	Asia	North America	Central - South America	Small Companies	Large Companies	Certified Companies	LEADERS
Ability to meet legal requirements	76.8%	80.5%	71.4%	72.0%	92.2%	68.1%	82.5%	93.4%	89.4%
Performance improvement	75.0%	76.5%	72.9%	76.6%	89.3%	64.7%	81.4%	90.2%	86.3%
Commitment from management	74.0%	75.3%	71.5%	66.7%)	92.2%	65.7%	82.0%	89.2%	85.6%
Employee engagement	72.0%	74.9%	68.7%	69.5%	86.8%	66.5%	78.5%	86.6%	85.7%
Ability to meet stakeholder's requirements	70.0%	72.7%	66.6%	58.8%	88.1%	61.0%	79.5%	85.5%	85.5%
Better relations with relevant authorities	66.0%	68.0%	63.0%	59.5%	81.2%	56.5%	73.8%	77.8%	83.2%
Achievement of strategic objectives	65.0%	67.6%	59.3%	65.2%	90.8%	52.6%	75.2%	82.7%	84.7%
Improvement of public image/ brand reputation	63.0%	64.2%	57.6%	56.2%	81.2%	56.1%	68.6%	76.1%	76.9%
Communication with stakeholders	62.0%	63.1%	59.0%	57.6%	85.4%	(49.9%)	72.4%	78.2%	80.7%
Improvement in suppliers and contractors	60.0%	60.9%	55.7%	58.1%	83.7%	49.7%	67.8%	73.2%	78.4%
Safeguarding property and top management	59.0%	57.6%	56.1%	55.9%	80.9%	51.1%	64.2%	73.5%	73.0%
Financial benefits through reduced costs	53.0%	50.9%	49.6%	58.0%	70.4%	43.9%	57.3%	63.3%	70.7%
Ability to provide a competitive advantage	49.0%	44.8%	51.6%	38.5%	69.4%	41.9%	52.1%	60.5%	62.2%
Creation of new market opportunities	44.0%	38.4%	46.2%	34.8%	63.1%	40.1%	47.0%	52.8%	55.1%
Advantages with banks and insurance companies	38.6%	32.8%	40.7%	39.6%	60.3%	30.9%)	45.1%	46.1%	55.8%
Fiscal/tax advantages	32.0%	28.3%	35.8%	28.9%	39.7%	26.8%	32.9%	36.3%	40.9%

CREATING BENEFITS

In general, LEADERS rate the relevance of benefits from certification higher than the average across the board. For the top five benefits, the gaps span from 16 percentage points for ability to meet the stakeholders' requirements (86% vs 70%) to 11 percentage points for performance improvement (86% vs 75%). This could confirm that LEADERS have a more structured, integrated and holistic approach to how they approach and manage Occupational Health & Safety throughout their organizations.

New ISO 45001 requirements

The new ISO 45001 standard for OH&S management was launched in March 2018, replacing OHSAS 18001. Respondents were asked to rate to which degree specific new concepts/requirements introduced in ISO 45001 would impact on their OH&S management system and help them become more effective in achieving their goals.

Overall, it seems that the new concepts/requirements are seen as a very positive development. Risks and opportunities is rated the highest with 74% and at the other end of the scale, we find extended requirements for procurement with 60%. Certified companies are very positive to the new concepts and requirements with all significantly above average scores. This seems to indicate that they believe that the new standard will add value both for companies who already are certified and those about to start their OH&S journey based on the new ISO 45001 standard.

The geographical picture seems to largely follow the average, with scores spanning between 85% and 58%. North America is generally below average while Central-South America is generally above.

The new ISO standards introduced some new concepts/requirements. Please rate to which degree the new requirements from the new ISO 45001:2018 (replacing OHSAS 18001) will help the OH&S Management System become more effective in achieving its goals

Figure 13: Contribution from new ISO requirements

% To a high degree + to some degree	TOTAL 1,567	Europe	Asia	North America	Central- South America	Small Companies	Large Companies	Certified Companies	LEADERS
Risks and opportunity management	73.6%	73.8%	72.1%	66.7%	80.8%	64.2%	80.1%	86.3%	81.9%
Strengthened emphasis on "leadership" and management commitment		72.4%	69.3%	67.3%	83.2%	61.8%	78.6%	86.5%	80.6%
A common structure of the standard facilitating integration with other existing management systems		71.4%	67.4%	63.2%	82.1%	60.3%	76.4%	84.6%	76.8%
Understanding of the context of the organization including internal and external influencing factors		68.7%	68.8%	62.8%	84.5%	60.5%	75.5%	81.3%	76.1%
Management of change	69.1%	68.4%	68.6%	62.8%	82.0%	58.6%	74.4%	81.8%	77.6%
Determination and monitoring of workers & other interested parties' needs & expectations		67.6%	67.0%	65.3%	80.8%	61.2%	73.3%	81.6%	77.5%
Extended requirements related to communications, incl. internal & external communication		65.6%	67.0%	61.0%	75.1%	55.8%	71.9%	78.5%	76.0%
Extended requirements for participation & consultation of workers		65.1%	64.2%	61.1%	79.4%	58.4%	70.1%	78.5%	74.4%
Reinforced requirements related to objectives as a driver for improvement & performance evaluation		61.3%	66.7%	65.9%	79.3%	56.5%	71.7%	76.0%	73.9%
Focus on cultural aspects and behavioral safety	62.5%	61.5%	60.8%	61.0%	80.1%	53.9%	70.4%	75.9%	78.8%
Extended requirements for procurement including outsourced processes & contractors		57.8%	58.8%	58.5%	77.8%	51.5%	68.8%	73.0%	69.3%

ISO REVISION DRIVING PERFORMANCE

LEADERS seem to welcome the new concepts/requirements of ISO 45001. They score higher for all items, spanning from 82% to 69%, and thus seem to recognize that migrating to the new standard will help them drive performance. Overall, LEADERS appear more capable of putting standards and certifications in context with internal policies and a behavioural approach.



Towards increasingly effective standards: Key Changes in ISO 45001 vs OHSAS 18001

Used by more than 100,000 organizations in more than 130 countries worldwide, the OHSAS 18001 standard is the most recognized and widely used voluntary Occupational Health & Safety management standard globally. The success is underlined by some national regulatory bodies referring to OHSAS 18001 in their legal frameworks.

The OHSAS 18001 standard was first developed in 1999 by the OHSAS Project Group comprised of an international association of national standards bodies, certification and accreditation bodies, Occupational Health & Safety institutes, industry associations, consulting organizations and government agencies. DNV GL was an active member from the start and a co-author and contributor to the OHSAS standards.

It was the OHSAS Project Group who took the initiative to replace it with an ISO standard, mainly due its extensive use and to ensure a more consistent revision and stakeholder process. In addition, regular revision of the standard is important to ensure it is fit for purpose and make sure it reflects trends in development and best practices within OH&S management. The ISO 45001 standard was developed with contributions from a large number of national experts and stakeholders. Representing IIOC (Independent International Organisation for Certification), DNV GL experts actively contributed through the international meetings.

ISO 45001 Occupational Health and Safety Management Systems - Requirements with Guidance for Use was published on 12 March, 2018. With its release, the OHSAS Project Group has decided that OHSAS 18001 will be withdrawn. Companies certified to the OHSAS 18001 standard have a three-year period to migrate their certificate to be compliant with ISO 45001. ISO 45001 applies the ISO High Level Structure (HLS) common for all standards released by the International Organization for Standardization (ISO). It follows the same structure as other widely applied ISO standards, such as ISO 9001 and ISO 14001, which makes it easier to implement and integrate with other management systems. This is an obvious benefit for many users.

Those familiar with OHSAS 18001 will recognize that most of the requirements are continued in ISO 45001. However, there are some new and revised requirements. Some of the changes are induced by the HLS, but in addition there are some that are specific for Occupational Health & Safety.

The key changes that companies must prepare for in order to migrate and comply with ISO 45001 are:

- **Business Context:** Chapter 4.1, external and internal issues, introduces new clauses for systematic determination and monitoring of the business context.
- Workers and other interested parties: Chapter 4.2 introduces enhanced focus on needs and expectations for workers and other interested parties and worker involvement. This to systematically identify and understand factors that need to be managed through the management system.
- Risk and opportunity management: Described in chapters 6.1.1, 6.1.2.3, 6.1.4, companies are to determine, consider and, where necessary, take action to address any risks or opportunities that may impact (either positively or negatively) the ability of the management system to deliver its intended results, including enhanced health and safety at the workplace.
- Leadership and management commitment: Stated in chapter 5.1, ISO 45001 has stronger emphasis on top management to actively engage and take accountability for the effectiveness of the management system.

- **Objectives and Performance:** Strengthened focus on objectives as drivers for improvements (chapters 6.2.1,6.2.2) and performance evaluation (chapter 9.1.1).
- Extended requirements related to:
 - Consultation and participation of workers (5.4)
 - Communication (7.4): More prescriptive in respect of the "mechanics" of communication, including determination of what, when and how to communicate. Communication covers both internal and external communication.
 - Procurement, including outsourced processes, and contractors (8.1.4)
 - Management of change (8.1.3)

When looking at the results from the question on the new ISO standards effectiveness in this survey, (figure 13 page 21), it seems that respondents expect changes and extended requirements induced in ISO 45001 to further help their organizations achieve identified OH&S goals to a large extent.

How do companies meet the new ISO 45001 requirements?

DNV GL has conducted a series of Viewpoint Espresso surveys investigating the expectations since 2015, reflections, attitudes, actions and plans of a wide range of companies towards new ISO requirements; most importantly high level structure (HLS) requirements and some other key requirements common to the most popular ISO standards. This can be valuable also for companies in their journey towards the migration or new certification to ISO 45001.

The ViewPoint Espresso reports can be found here: <u>dnvgl.com/espresso</u>

INSIGHTS FROM AUDITING OH&S MANAGEMENT SYSTEMS

This section analyses data from all relevant OHSAS 18001 audits done by DNV GL on certified companies according to an OH&S management system standards in the last two years, 2016 and 2017. By quantitatively and qualitatively breaking down the data, DNV GL provides insight into the aggregated performance of the companies' management systems.

The aim of the analysis is to provide targeted insight as to what process areas and sub-processes or activities cause the most issues in organizations seeking to achieve and/or maintain certification to an OH&S management system standard.

The results come from analysing audits conducted worldwide by DNV GL on 8,000+ OHSAS 18001 certified companies.

Chasing improvement in details: Classification of findings

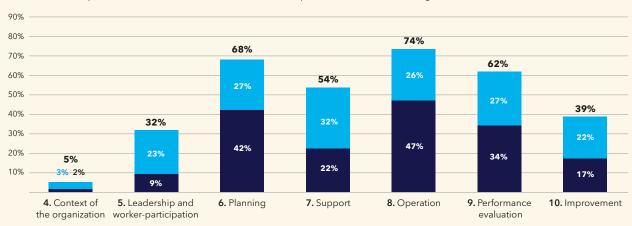
The statistics are based on audit findings. For the purpose of this analysis, it is distinguished between "severe findings" and "non-severe findings". Severe findings include what, in audit terms, are called major and minor non-conformities. Non-severe findings include observations and opportunities for improvement. Definitions for each category of findings are as follows:

 Major non-conformity: A non-conformity that affects the capability of the management system to achieve the intended results (Cat1).

- Minor non-conformity: A non-conformity that does not affect the capability of the management system to achieve the intended results (Cat2).
- Observation: An observation is not a nonconformity, but something that could lead to a nonconformity if allowed to continue uncorrected, or an existing condition without adequate supporting evidence to verify that it constitutes a non-conformity.
- Opportunity for improvement: An area and/or process of the organization which may meet the minimum requirement of the standard but which could be improved.

Results: Planning and operations in the spotlight

A total of 83% of the audited companies experienced at least one finding (any category) during the audit whilst 68% concluded the audit with at least one severe finding, i.e. with a major non-conformity (or Cat1) or a minor non-conformity (or Cat2). When breaking down the analysis at process level, according to the ISO's new High Level Structure (HLS) common to all recent and new ISO Standards, shown in graph 1 below.¹:



Percent of companies with non-conformities Percent of companies with non-severe findings

Graph 1: Distribution of findings - Overview

¹ Original findings raised against OHSAS 18001 are presented in the new ISO 45001 set-up, through the official correlation table linking the "old" and the new standard.

Chapter	Description	% of companies with non-conformities	% of companies with non-severe findings	% of companies with findings (sum)
4	Context of the organization	1%	3%	5%
5	Leadership and worker participation	9%	23%	32%
6	Planning	42%	27%	68%
7	Support	22%	32%	54%
8	Operation	47%	26%	74%
9	Performance evaluation	34%	27%	62%
10	Improvement	17%	22%	39%

Table 1: Distribution of findings - Data table

More than 70% of the companies had findings which were related to operational processes (Chapter 8) and almost 1 in two (47%) had non-conformities. In the new ISO 45001 standard, chapter 8 sets the requirements which are related to operational control and planning. It covers various control measures which are required to ensure that the management system achieves the intended outcomes. This chapter also covers controls related to procurement, which includes contractors and outsourced processes. Emergency preparedness and response intended as the ability to prevent and be prepared for incidents and accidents is also a critical components of this macro-process area.

Chapter 6 on planning is another critical area to focus upon in order to be compliant. A total of 40% of the audited companies had non-conformities in the processes aimed at identifying and assessing risks (and opportunities), identification of legal (and other) requirements and consequent planning of actions. Within this chapter, there is a sub-process that aims to identify OH&S objectives and planning on how to achieve them. While a bit less critical, it is interesting to note that 8% of the companies have severe findings in this area.

The macro-process of performance evaluation (chapter 9 in the new ISO 45001) is the area with the third most relevant findings. Monitoring, measurement, analysis of health and safety performance and effectiveness of the system, as well as the evaluation of compliance with all legal and other obligations are by far the most critical processes within this area and one out of 3 audited companies have non-conformities in this area. Less critical, but still within chapter 9, are both the processes of internal audit and review done by management with less than 10% of audited companies showing critical findings. Table 2 lists in decreasing order the most recurring areas of failures when auditing companies to an OH&S management system standard.

Sub Process	Description	% frequency
8.1	Operational planning and control	43%
6.1.2	Hazard identification and assessment of risks and opportunities	32%
6.1.3	Determination of legal requirements and other requirements	20%
8.2.0	Emergency preparedness and response	18%
9.1.2	Evaluation of compliance	17%
10.2	Incident, nonconformity and corrective action	17%
7.2	Competence	17%
9.1.1	Monitoring, measurement, analysis and performance evaluation - general	16%
9.2	Internal audit	9%
9.3	Management review	9%

 Table 2: Top 10 most frequent severe (non-conformity) failures per sub-process

For the top 3 areas of failure, an in-depth qualitative analysis has been conducted aimed at categorizing the root-causes behind the non-conformities and the corrective actions put in place by companies to manage the issue and preventing it from reoccurring.

The requirements in a nutshell:

8.1 - Operational planning and control

The organization shall plan, implement, control and maintain:

- A process to meet the requirements of the OH&S management system, and to implement the planned actions.
- A process for the elimination of hazards and reduction of OH&S risks.
- temporary and permanent changes that impact OH&S performance.
- A process to control the procurement of products and services in order to ensure their conformity to its OH&S management system.

A total of 43% of audited companies do not meet the requirements. This is due to the following reasons:

- Inadequate planning and execution of the activities of inspection and scheduled maintenance.
- Inadequate management of technical change.
- Inadequate definition of methods, operational parameters, sequence and interference between the activities performed and ineffective definition and adoption of the related OH&S risk mitigation measures.
- Inadequate definition and implementation of a surveillance plan.
- Inadequate management of external companies.

The most recurring corrective actions are:

- Implementation of a maintenance regime consistent with the assessment of OH&S risks and definition of structured processes to plan, execute and record the inspection activities and the scheduled maintenance of the plants and equipment used.
- Application of a structured process for the management of technical change, in particular for machines and for the modification of work environments.
- Structured assessment of processes and operating procedures by systematically defining the methods, operational parameters, sequence and interference of activities and the related mitigation measures of OH&S risks.
- Structured implementation of a surveillance plan to monitor compliance with the rules/behaviours for OH&S and keep work environments under control.
- Definition of an effective management process of external companies through a structured selection, a clear definition of responsibilities, adequate supervision and systematic monitoring, consistent with the OH&S risks assessment.

6.1.2 - Hazard identification and assessment of risks and opportunities

The organization shall establish, implement and maintain a process:

- For hazard identification (e.g. how work is organized, hazards from infrastructure, products, human factors, past relevant incidents, etc.).
- To assess OH&S risks from the identified hazards and other risks related to OH&S management system.
- To assess OH&S opportunities to enhance OH&S performance.

A total of 32% of audited companies do not meet the above requirements. This is due to the following reasons:

- Lack in implementation of process or procedures defined into the OH&S management system.
- Lack of/incomplete OH&S risk assessment (not covering specific risks, tasks or activities).
- Lack of update and maintenance of the OH&S risk assessment.
- Lack of/incomplete assessment of OH&S risks deriving from simultaneous operations (i.e. interference between organization's and contractors' activities).
- Some inconsistent situations between assessments OH & S documentation and operational control
- Lack of update of the product's safety data sheet
- Lack of improvement plan for identified risks
- General lack in document management

The most recurring corrective actions are:

- Proper implementation, periodical review and update of the OH&S management system procedures.
- Periodical review and update of OH&S risk assessment.
- Definition of a structured approach to assess and control OH&S risks deriving from simultaneous operations.
- implementation of infrastructure adjustment programmes in order to complete alignment with legislation (i.e.: adjustment of the machines).
- Periodical review and update of relevant products' data sheets.
- Update and periodical monitoring of the improvement plan and effectiveness verification.
- Proper management/update of records into the OH&S management system.

The requirements in a nutshell:

6.1.3 - Determination of legal requirements and other requirements

The organization shall establish, implement and maintain a process to:

- Determine and have access to up-to-date legal requirements and other requirements that are applicable to its hazards, OH&S risks and OH&S management system.
- Determine how these legal requirements and other requirements apply to the organization and what needs to be communicated.
- Take these legal requirements and other requirements into account when establishing, implementing, maintaining and continually improving its OH&S management system.

The organization shall maintain and retain documented information on its legal requirements and other requirements and shall ensure that it is updated to reflect any changes.

A total of 20% of audited companies do not meet the above requirements. This is due to the following reasons:

- Deficiencies related to the assessment of legislative compliance.
- Organizational problems, and problems of responsibility allocation.
- Deficiencies in risk assessment.
- Difficulty in defining objectives (related to the policy) and related programs.
- Deficiencies related to system procedures.
- Deficiencies related to surveillance.
- Deficiency in the legislative update.

The most recurring corrective actions are:

- Definition of a structured criteria for a systematic update of the legislative/regulatory framework in force.
- Use of nationally recognized legislative databases that allow constant updating of the legislativeregulatory framework.
- Structured management of a surveillance plan and internal legislative audits in order to monitor compliance with legislative requirements.
- Application of a defined and well-structured change management practice to:
 - manage a new law/regulation or the change of a law/regulation.
 - manage any change that may have an impact on compliance with current legislative requirements (e.g. the introduction of a new production facility).
- Redefinition of responsibilities and authorities at an organizational level.
- Better alignment of risk assessment with the actual operational situation.
- Definition of a spending budget for OH&S-related matters that must be systematically monitored.

OUR FINAL THOUGHTS



For the surveyed companies, the two key drivers for applying OH&S management are safeguarding the well-being of workers and compliance with laws and regulations. Other drivers, overall, are quite secondary, scoring a bit lower than the top two. All types of companies in the sample – small, large, certified and those classified as LEADERS – indicate the same strong focus on the top two.

Among the risk mitigating actions that companies consider very effective, those favoured are maintenance of machines, equipment and physical premises and emergency measures. Softer and more behavioural actions such as information to and training of personnel and assessments of all risks related to health and safety score high as well, which is a very positive signal. Not surprisingly, main benefits perceived across all types of companies are the improved ability to comply with laws, decrease of incidents/injuries and improved relations with employees. When it comes to perceived benefits of their investments into OH&S management, we start seeing significant differences among the companies. We see in the survey that companies with certified OH&S management systems and LEADERS have a clear vision, defined strategies and effective planning systems. They have a more mature management system and therefore a better ability to plan and achieve their OH&S objectives. More than 65% of certified and large companies indicate a positive return on investment. This is substantially higher than for small companies, where only 41% report that benefits exceed costs. This survey indicates that the relevance of OH&S issues for the overall business strategy will be higher in the future for large companies and certified companies. While for small companies, only 56% report that they will see this issue as relevant for their strategy.

This picture is a concern when we know the number of fatalities and rate of world-related diseases worldwide on an annual basis. At the same time, estimates are that SMEs are a very important part of the economy, representing around 99% of all enterprises and employing an increasing number of persons¹. We see it as critical that small companies continue the trend to incorporate OH&S issues in their strategy at a higher rate and find relevant tools to effectively manage their risks and safeguard the well-being of workers.

We see from the survey that certification of OH&S management is not enough to become a LEADER in this area. An additional key element for this group of companies is a structured, integrated and multidimensional approach. However, we do see positive indications that certified companies seem to have a clear vision of the need to further improve their OH&S management, in the short-mid run. Our experience is that to implement a management system based on a recognized standard, such as ISO 45001 (previously OHSAS 18001), followed by certification, is a valuable and proven tool to deal seriously with the issue.

While, as mentioned, we do see that small companies are making efforts to implement relevant tools to address their OH&S challenges, the feeling is that it is not enough to address the problem at hand. This is a concern with regards to the working conditions and safety of individual workers and an operational business risk beyond each individual company in parallel. Companies today face increased stakeholder scrutiny and demands of sustainable operations throughout the supply chains, from their own operations down to the last link, and safeguarding the well-being of workers is a central part of this picture. It is in everyone's interest that more companies improve their OH&S management maturity.

The fact that companies in all segments will not reduce their investments in occupational health and safety in the next 3 years fuels hope that companies understand the importance of OH&S and see the need to act. They will either increase or keep investments at the same level. One third of small companies plan to increase their investments compared to today.

Observing companies with a certified OH&S management system, they indicate that third party certification adds value. This picture is confirmed by LEADERS as well. Moreover, there are very positive indications that the release of the new ISO 45001 standard will help companies become even more effective. When faced with the statistics of 2.78 million fatalities per year and a total of 374 million workrelated injuries and illnesses per year², we believe that DNV GL and other players like us, have a moral and cultural role to play to help improve these statistics and make an impact in a more sustainable direction. While improving Occupational Health & Safety undoubtedly can have a positive impact on financial results, reputation and brand, at the end of the day, this is very much about advocating and working towards a sustainable working environment, to safeguard the well-being and lives of workers and their families.

¹ http://ec.europa.eu/eurostat/statistics-explained/index.php/Statistics_on_small_and_medium-sized_enterprises

² http://www.ilo.org/global/topics/safety-and-health-at-work/lang--en/index.htm

THE LEADERS' APPROACH TO OCCUPATIONAL HEALTH AND SAFETY



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