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Executive summary

DNV GL - BUSINESS ASSURANCE

OCCUPATIONAL HEALTH AND SAFETY

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INTRODUCTION

DNV GL - Business Assurance, a global certification leader, and GFK Eurisko, among the most prominent international research institutes, have investigated the approach to occupational health & safety (H&S) adopted by companies in different sectors in Europe, North America, South America and Asia.

The survey was conducted in October 2013 and investigated the way occupational H&S is managed, the main risk areas and the main initiatives implemented in different world areas and sectors by DNV GL - Business Assurance customers.

The approach to H&S at work turns out to be changing for the better. This international survey, involving about 3,860 professionals from the primary, secondary and tertiary sectors from all the world's regions, has shown how businesses are increasingly shifting from the reactive attitude of past years to the conscious management of practical issues, a prelude to the development of a genuine corporate culture of occupational H&S.

Different regions manifest different attitudes. Managing occupational H&S is crucial to North Americans to preserve the business, Norwegians and Swedes put people first and Asians feel they still have to work on structures, but overall a positive shift is registered.

For the future, professionals all over the world expect a decrease in operational hazards but won't overlook initiatives for safeguarding H&S at work and will change their approach considerably. Efforts will shift from operative features to organizational ones, marking a relevant step change for the advancement of a culture of occupational H&S that focuses on organizational aspects and worker wellbeing rather than on operational issues.

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METHODOLOGY AND SURVEY SAMPLE

- The survey was conducted in October 2013, on a sample of about 3,860 professionals who work at prominent companies in the primary, secondary and tertiary sectors across different industries in Europe, North America, Central & South America and Asia.
- The sample is qualitative and not statistically representative.
 - ✓ 23% of the firms involved employ less than 50 people, 32% from 50 to 249 and 45% 250 or more
 - ✓ Most of the companies involved are in the secondary sector, particularly food (5%), chemicals (6%), metals (11%), machinery (9%) and electrical (4%).
 - ✓ 67% of survey respondents are directly involved in technical management.
- The questionnaire was administered using the CAWI (Computer Assisted Web Interviewing) methodology.



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HEALTH & SAFETY MANAGEMENT

Managing H&S at work is part of today's corporate strategy. More than 90% of the people surveyed confirm this. The highest commitment comes from the mining and quarrying sector, where the proportion reaches 98%.



Figure 1: H&S management as part of corporate strategy

76% of professionals state they even implement an ad hoc policy, above and beyond what is required by laws and regulations. The bigger the companies, the higher the application rates but, surprisingly, 70% of small firms adopt specific approaches too. Together with Central and South Americans (81%), Europeans (82%) are the most dynamic. Best in class are the Italians (94%) and the Dutch (92%).



Figure 2: Companies implementing ad hoc occupational H&S policies

These policies are not just window-dressing: in fact about 7 in 10 declare that they effectively implement them. Percentages are higher for Italy (88%).

MAIN RISK AREAS AND MAIN INITIATIVES UNDERTAKEN BY COMPANIES AROUND THE WORLD

Questioned on what the main risk areas are, participants principally identify operational aspects, with some interesting geographical differences. North Americans (66%) and Swedes (55%), for example, are those who care most about ergonomics, while the structural deficiencies of machines and equipment are a main risk concern for Asians (54%). The Chinese seem to be particularly worried about the work environment: above average proportions were recorded for risks caused by the presence of physical agents like noise and vibration (55%), fires and explosions (50%) and poor electrical safety (38%).

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| Please select the main risk areas in | | | | | |
|--|-------|--------|------------------|------------------------------|-------|
| your company related to Health & Safety: | TOTAL | Europe | North America | Central- South America | Asia |
| | 3.860 | 1.759 | 389 | 214 | 1.394 |
| ergonomic factors (e.g. repetitive work, work patterns, etc.) | 41,3% | 43,5% | 66,1% | 55,1% | 29,0% |
| structural deficiencies of machines and equipment | 41,2% | 34,1% | 29,8% | 38,8% | 53,5% |
| organization of work (e.g. exhausting jobs, manual load handling, etc.) | 40,7% | 41,4% | 44,0% | 43,9% | 37,5% |
| the presence of physical agents (e.g. noise, vibrations, artificial optical radiation, | 38,7% | 41,7% | 37,0% | 43,9% | 33,3% |
| fire / explosion | 36,7% | 32,7% | 30,6% | 40,7% | 42,6% |
| handling hazardous materials | 35,8% | 30,4% | 50,4% | 39,7% | 37,6% |
| chemical agents | 33,2% | 34,2% | 37,3% | 36,9% | 30,4% |
| structural deficiencies in the working environment | 32,7% | 23,1% | 14,7% | 26,2% | 51,1% |
| poor electrical safety | 24,7% | 18,5% | 21,6% | 30,4% | 31,9% |
| psychological factors (e.g. monotony, working alone, etc.) | 22,0% | 22,3% | 22,1% | 29,0% | 20,2% |
| difficult working conditions (e.g. working in extreme weather conditions, at high altitudes, or. | 17,3% | 17,0% | 15,4% | 18,2% | 16,9% |
| the presence of carcinogens | 9,5% | 8,7% | 20,1% | 7,5% | 7,4% |
| the presence of biological agents | 7,5% | 8,4% | 14,9% | 15,4% | 3,0% |

| Up to 49 | 50 to 249 | 250 and more |
|-------------|--------------|-----------------|
| 887 | 1.224 | 1.719 |
| 34,4% | 38,2% | 47,3% |
| 36,2% | 42,3% | 43,0% |
| 34,8% | 40,0% | 44,4% |
| 34,5% | 38,5% | 41,2% |
| 22,8% | 34,6% | 45,3% |
| 22,3% | 33,6% | 44,5% |
| 21,4% | 33,3% | 39,4% |
| 32,2% | 32,1% | 33,3% |
| 17,6% | 22,7% | 29,7% |
| 18,7% | 19,4% | 25,9% |
| 12,7% | 15,1% | 21,3% |
| 4,8% | 7,8% | 13,1% |
| 5,0% | 6,0% | 9,8% |

Figure 3: Main risk areas

Consequently, rather than focusing on prevention, businesses find operational initiatives to be the most effective. The most effective ones, in fact, are those concerned with the regular maintenance of premises (48%), emergency measures (46%), training (42%) and medical surveillance of employees (40%). Organizational issues such as the assessment of all risks related to H&S (37%), preventive measures (35%) and management systems or prevention programs (34%) are down on the list, demonstrating that, although the focus on operational aspects nowadays is high, there is still a lot to be done in terms of the organizational culture of occupational H&S.

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Please select the actions undertaken so far in order to mitigate the above identified risks; for those implemented evaluate the effectiveness:

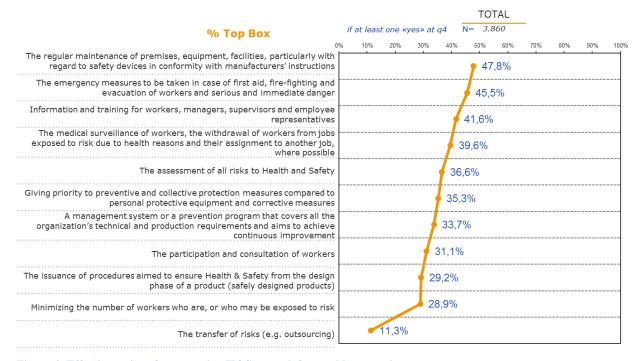


Figure 4: Effective actions for managing H&S at work for world companies

The most advanced are North Americans with percentages well above average not only for the effective implementation of actions aimed at controlling operative features but also of actions addressing organizational issues: almost 1 in 2 successfully undertake initiatives to minimize the number of resources exposed to risk, 44% implement risk management systems and 43% issue procedures aimed at ensuring H&S of products from the design phase.

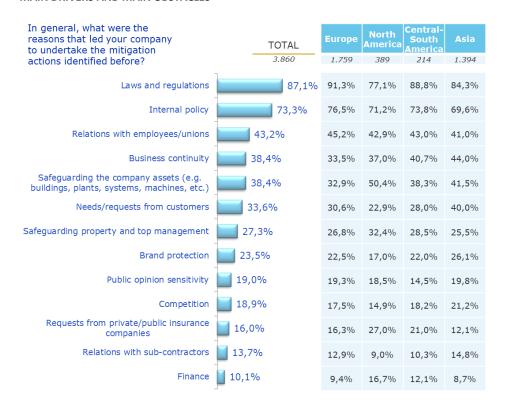
Norwegians and Swedes, instead, stand out for the attention they pay to participation and consultation of personnel on this subject (Norway 46%; Sweden 43%). Moreover, they are among the most active supporters in the world of emergency measures (Swedes 64%) and of preventive and collective protection measures (Norwegians 50%) rather than of personal protective equipment.

In this context Italians are remarkable for medical surveillance of workers (57%) and for the assessment of all risks related to occupational H&S at work (49%).

Chemical businesses, understandably, are in the forefront for the adoption of emergency measures (58%) and for the drawing up of procedures aimed at ensuring H&S beginning with the design phase of a product (40%). Mining and quarrying businesses, instead, are particularly committed to the assessment of all risks related to H&S and to the medical surveillance of their workforces (50%) and stand out for their consultation (43%).

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MAIN DRIVERS AND MAIN OBSTACLES



| Up to | 50 to 249 | 250 and more |
|-------|--------------|-----------------|
| 887 | 1.224 | 1.719 |
| 81,6% | 88,6% | 89,0% |
| 65,1% | 72,0% | 78,7% |
| 28,3% | 43,0% | 51,1% |
| 32,1% | 35,6% | 43,6% |
| 28,6% | 37,1% | 44,3% |
| 27,8% | 33,4% | 36,6% |
| 20,9% | 26,2% | 31,5% |
| 15,0% | 21,4% | 29,6% |
| 9,4% | 15,6% | 26,2% |
| 13,9% | 16,7% | 23,0% |
| 10,9% | 15,8% | 18,9% |
| 10,0% | 12,3% | 16,5% |
| 5,7% | 9,5% | 12,7% |

Figure 5: Top reasons leading companies to undertake H&S related actions

Compliance with laws and regulations (87%) is the top reason leading firms to develop actions to safeguard H&S at work, especially in Europe (91%). Internal policies, mentioned by 73% of professionals, come next. All other reasons, such as the maintenance of good relations with employees (43%), business continuity (38%) and safeguarding the company assets (38%), play a secondary role. Occupational H&S is a concern to global companies independently of consequences that could affect market performance. Actually, brand protection (24%), public opinion sensitivity (19%) and competition (19%) turn out to be minor drivers.

Nevertheless, different regions show different attitudes. Although it remains the main driver, pressure from laws and regulations is below average (77%) for North Americans. In addition to satisfying an external request, preserving H&S at work is crucial to them to preserve the business, too: 1 in 2 see these actions as a way to safeguard corporate assets and about 1 in 3 to protect property and top management or satisfy requests from insurance companies.

Safeguarding corporate assets is an important driver for Indians (64%) and Chinese (50%), as well. In China competition (39%), brand protection (40%) and satisfaction of requests from customers (55%) are also key motivations, highlighting how safety of workers is considered a fundamental element for successful businesses. 55% of Norwegians and 72% of Swedes, on the other hand, were motivated by relations with employees and unions.

Reasons for undertaking mitigating actions in different industries roughly mirror the overall rankings, with laws and regulations - followed by internal policies – topping the rankings for all sectors.

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



| Up to 49 | 50 to 249 | and more |
|-------------|--------------|-------------|
| 887 | 1.224 | 1.719 |
| 43,0% | 53,3% | 66,1% |
| 40,0% | 35,1% | 25,0% |
| 17,0% | 11,5% | 8,9% |

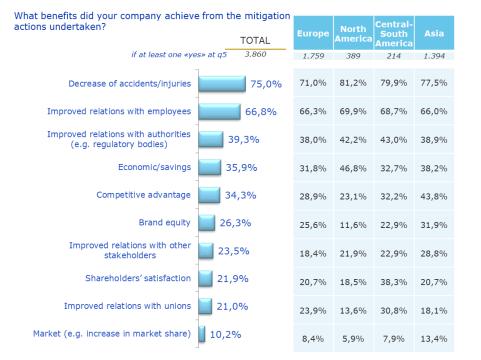
Figure 6: Costs and benefits

57% of people surveyed retain that the benefits coming from H&S related actions outweigh the costs. Norwegians (79%) and Chinese (80%) are the most satisfied. North Americans (76%) and Central-South Americans (72%) also record percentages well above average.

At a general level, firms obtained tangible paybacks, mostly in terms of decrease of accidents (75%) and improvement of relations with personnel (67%). 39% improved their relationship with authorities and only 24% with other stakeholders. Safeguarding occupational H&S isn't perceived as an asset in terms of improving business performance: those who claimed to have profited in terms of economic savings (36%), competitive advantage (34%) and returns for brand equity (26%) were not many. North Americans are an exception only in terms of savings (singled out by 1 in 2) and Chinese professionals for considering competitive advantage (49%) and brand equity (37%) significant benefits.

Chemical companies stand out for benefiting considerably more than the average in terms of decrease of accidents (87%) and improvement of relations with authorities (55%) and with stakeholders (35%). The mining and quarrying sector, stands out for profiting more than average, especially regarding parameters such as competitive advantage (51%) and improvement of relationship with authorities (50%).

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| Up to | 50 to 249 | 250 and more |
|-------|--------------|-----------------|
| 887 | 1.224 | 1.719 |
| 59,2% | 75,2% | 83,1% |
| 61,4% | 67,1% | 69,5% |
| 25,1% | 37,6% | 47,9% |
| 27,1% | 33,2% | 42,8% |
| 29,1% | 32,9% | 38,0% |
| 21,6% | 22,8% | 31,1% |
| 13,9% | 21,2% | 30,3% |
| 10,5% | 20,0% | 29,0% |
| 6,3% | 20,3% | 29,2% |
| 8,0% | 10,1% | 11,4% |

Figure 7: Benefits obtained by companies adopting initiatives to safeguard H&S at work

Lack of financial resources (31%) and focus on short term results (26%) are the main factors preventing businesses from making more progress in managing occupational H&S all over the world.

In Asia, moreover, the burden of factors such as the decrease in efficiency (23%), lack of return on investment (19%) and lack of involvement of sub-contractors (15%) is heavier than average, highlighting that the way operations are structured is perceived as an obstacle in this region. A similar scenario is registered for the construction sector, where decrease in efficiency (21%), reduced competitiveness (13%) and most of all lack of involvement of sub-contractors (26%) considerably influence the capability of firms to improve H&S conditions. The way operations are organized compromises the possibility of controlling and improving them.

1.224

6,0%

887

7,4%

6,8%

1.719

5,8%

7,6% 12,9%

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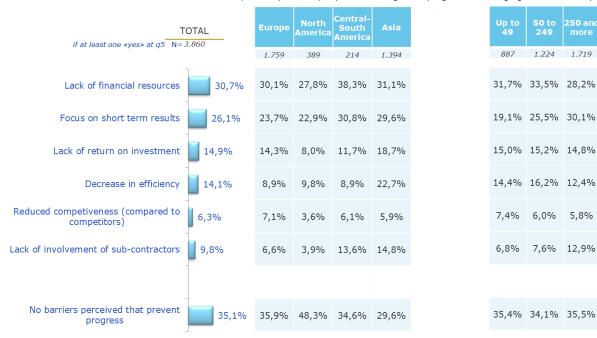


Figure 8: Obstacles for companies for making progress in managing H&S

FUTURE DEVELOPMENTS

In the future, professionals all over the world expect a reduction in all kinds of operational hazards. Confident in progress in providing practical solutions, companies expect to maintain same level of attention only on psychological factors (22% currently and in the future).

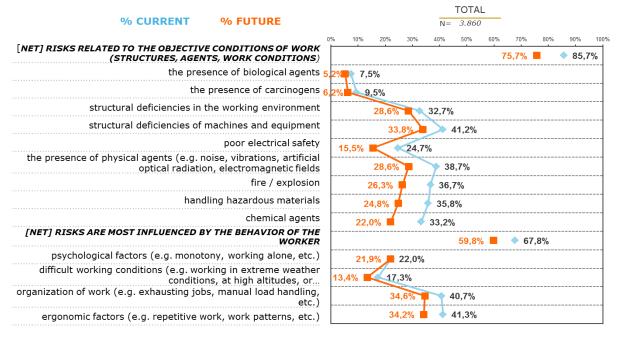
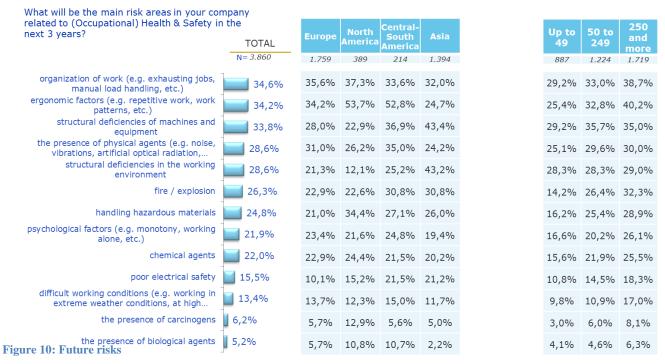


Figure 9: Current and future risks

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There will be regional differences. North Americans (54%) and Central-South Americans (53%), for example, will retain their focus on ergonomics, while Asians expect above average risks from structural deficiencies of machines (43%) and working environment (43%).



Although they expect a decrease in risks, businesses will not neglect initiatives for safeguarding H&S at work and will go through an important change in their attitude. Training for employees (63%), assessment of all risks (63%) and adoption of management systems or prevention programs (59%) will be top of the list. Efforts will move from operational aspects to organizational ones, marking a relevant step for the development of a corporate culture of occupational H&S.

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In general, what mitigation actions do you think will be effective against the above identified future risks?

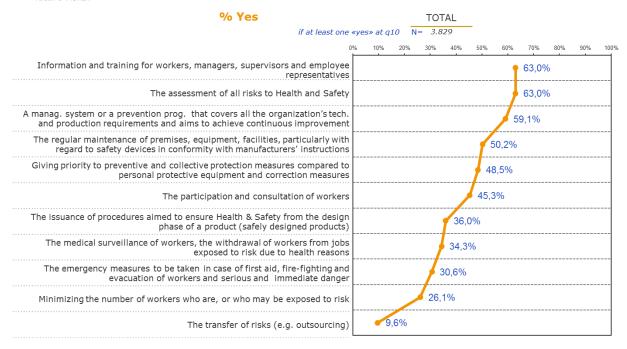
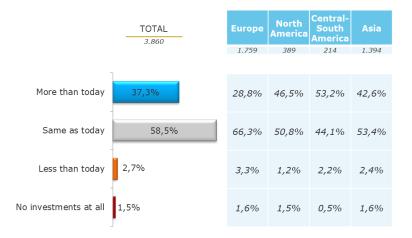


Figure 11: Future initiatives

What is certain is that the emphasis on the topic will remain high in the coming years. Actually, more than 90% of people surveyed expect to maintain or increase investments for occupational H&S in the next 3 years. Central and South Americans are the most determined: 53% affirm their willingness to increase dedicated funds.

Is your company going to invest in Health & Safety in the next three years?



| Up to 49 | 50 to 249 | 250 and more |
|----------|--------------|-----------------|
| 887 | 1.224 | 1.719 |
| 27,5% | 34,8% | 44,0% |
| 65,7% | 61,1% | 53,1% |
| 3,3% | 2,9% | 2,3% |
| 3,5% | 1,2% | 0,6% |

Figure 12: Investment intention