

FORUM NEWS



@grund.photo



Welcome to Lucerne!

On behalf of Suva I'm delighted to welcome you to this year's European Forum Conference, to be held 3 – 5 October 2018 in Lucerne. Suva will celebrate its 100-year anniversary this year. This means that 2018 is a really special year for us.

The focus of the conference will be on "Accident insurance 4.0 – The impact of digitalisation". Digitalisation is also an important topic in our industry. It creates many opportunities, but also risks. During the conference, we want to discuss solutions to current challenges related to digitalisation.

The interactive best practice sessions will give us the chance to explore four topics in depth and learn from others. The four topics are as follows: Work 4.0, Big Data in Claims Management, Digitalisation and Rehabilitation and Digitalisation and Prevention.

We are confident that we have planned an attractive programme for you. And we have not forgotten about informal discussion, either. On the first evening as part of "Swiss Night" we offer you an introduction to traditional Swiss customs. The conference day will

be followed by a gala dinner on Mount Bürgenstock. – The evening will be full of surprises.

See you in October in Lucerne – we look forward to welcoming you! ■

Kind regards
Daniel Roscher
 2018 European Forum
 President Member of
 Suva's Board of Management

Please register at:
www.suva.ch/europeanforum2018

Content

Views of Germany's social accident insurance in the new legislative period _____	2	Fatal workplace accident investigation Finnish style _____	15	News from Sweden _____	21
What are the challenges and the opportunities of digital transformation economy for health and safety at work in Europe? _____	6	Croatia: Project of promotion health and safety at work in hospital activities _____	16	Imressum _____	21
Fume events - a relevant phenomenon for accident insurance systems? _____	10	"Surefooted through Life" – Update on the Campaign of the Social Insurance for Agriculture, Forestry and Horticulture (SVLFG, Germany) _____	18		
		Italy: From Inail and Bio-Medical Campus a bionic arm that controls itself as a natural arm _____	20		

Views of Germany's social accident insurance in the new legislative period

171 days after the election, the new federal government has been sworn in. What is planned for statutory accident insurance? A look at the coalition agreement provides some clues.

Following approval of the coalition agreement on March 4, 2018 by the members of Germany's SPD party, the media reported that the path is now clear for the 'grand coalition' (known as 'GroKo' in Germany). In actual fact, the CDU/CSU and SPD parties have already signed the coalition agreement, appointed ministers and elected the chancellor. Almost six months after the elections for the 19th German Bundestag, the Federal Republic of Germany finally has a new government. But what can we expect and what does the government programme of the CDU/CSU and SPD, as outlined in the coalition agreement, mean for Germany's statutory accident insurance?

Under the title "A new awakening for Europe, a new dynamic for Germany, a new cohesion for our country", the coalition agreement covers a broad range of topics, albeit in a sometimes very fragmentary manner. Concrete projects such as setting the pension level to 48 percent by 2025 or reducing unemployment benefits by 0.3 percentage points are rather rare. In many cases, the agreement only describes general objectives, which makes it very difficult to draw conclusions about the details of the measures to be expected.

This is also the case for statements made regarding accident insurance and occupational safety and health. To a certain degree, it is only possible to make assumptions based on what is already known from existing policy positions, informal discussions and by taking into account the argumentative context in which the announcements in the coalition agreement are found.

Modernisation of the social state

According to the coalition agreement, the new federal government wants to modernise the social state and to further develop statutory accident insurance and occupational disease law.

Germany's social accident insurance was the subject of sweeping reforms ten years ago. At that time, comprehensive changes in both benefits legislation and in organisational structures were discussed. The Accident Insurance Modernisation Act (UVMG), passed in 2008, was essentially about extensively streamlining how accident insurance is organised and introducing new burden-sharing for so-called legacy liabilities.

Since then, there have been no major political calls for far-reaching reforms. However, reflecting their respective positions, the social partners have regularly called for the benefits catalogue to be limited to company-specific risks, as well as for prevention and the nationwide enforcement of risk assessments to be strengthened.[1] Occasionally, there have also been calls for further organisational streamlining through a merger of all social accident insurance institutions for trade and industry in order to achieve further efficiency gains[2].

As referred to in the coalition agreement, the federal government will be approached in the coming weeks with these and other deliberations concerning accident insurance. At the moment, it is difficult to say whether they will be taken up. Looking at how the development of accident insurance and occupational disease legislation are addressed in the coalition agreement, the government

is probably more concerned with initially ensuring 'good work' and adapting social security to the challenges of globalisation and digitalisation than, for example, organisational measures.

Changes to occupational disease law

Germany's social accident insurance has been discussing changes to legislation on occupational diseases for some time. In 2016, the DGUV's Self-governing Committee created its own White Paper. The proposals in the White Paper include: giving the Medical Advisory Committee for Occupational Diseases (ÄSVB) and its activities a legal mandate; making it obligatory for the DGUV and its members to report on research activities related to occupational disease legislation; legally establishing and expanding opportunities to assess exposure data in the workplace; abolishing Germany's system of forced occupational abstinence; and introducing a uniform retroactivity regulation when adding a new occupational disease to the List of Occupational Diseases. [3]

The Self-governing Committee's proposals were presented to the Federal Ministry of Labour and Social Affairs (BMAS) in the previous legislative period and were greeted positively by the political leadership of the time. Therefore, it can be assumed that they will also be reflected in draft legislation put forward by the new government.

Presumably, such draft legislation will not be based exclusively on the proposals of the DGUV Self-governing Committee. There are regular calls from the trade unions, the Federal States and the German Bundestag itself for reforms to occupational disease legislation. [4] These cover a broad spectrum of topics including reversal of the burden of proof, making it easier to prove causality, hardship provisions, and requiring mental illnesses and illnesses due to mental stress at work to also be regarded as occupational diseases.

Previous governments have rejected attempts to make it easier to prove causality or reverse the burden of proof because they consider this to be non-compliant with

the system. [5] The DGUV's Self-governing Committee expects that the legislator will continue to adhere to the principle of causality which is constitutive for statutory accident insurance with the unequivocal proof of occupational causation and will not put in place any measures which would call into question the principle of assumption of liability. But these will undoubtedly be on the table in the upcoming parliamentary discussions.

The same applies to the issue of mental illnesses and illnesses caused by negative psychological stress at work. These are directly addressed in the coalition agreement in the context of digitalisation.

Good digital work

Digitalisation, in addition to the issue of Europe, is the main topic of the future for the new Federal Government. It is incorporated into all major action areas outlined in the coalition agreement such as health, education, security, administration and transport. It has been given the slogan 'Good Digital Work 4.0' and clearly has a socio-political dimension. Digitalisation appears both as an instrument for achieving socio-political objectives and as a driver of change in the world of work which require shaping by policy. Areas of action include occupational safety and health, working hours and the topic of 'mobile work'.

For example, digitalisation is to be used for occupational safety and work, and innovative assistance systems are to be developed that enable inclusion and promote learning and good health. The aim is for Germany to become a leading market for these systems and an application programme for assistance systems for small and medium-sized enterprises will be created. Occupational health and safety is to be reviewed in terms of the challenges of digitalisation, with special attention given to insights and findings into mental illnesses.

Intelligent assistance systems used at human-machine and human-technology interfaces can relieve the burden on workers in a number of ways including monotonous work and routine activities, as well as phys-

ically arduous and dangerous activities. They can be used to create safe and healthy workplaces and also provide older people and people with disabilities access to work and longer employment. Germany's social accident insurance is also following this path and is already helping to develop a variety of aids for insured persons.

However, increasing the use of intelligent assistance systems also involves risks such as the further consolidation of work, the increased standardisation of activities with growing pressure to adapt to the requirements of the 'machine', and new possibilities to control performance and behaviour. These developments result in burdens that create new challenges for occupational health and safety in companies and the management of prevention by statutory accident insurance.

Promoting new forms of work

In terms of working hours and work organisation, the new federal government wants to encourage the development of new forms of work in regional competence centres. Digitalisation should be used as a way of giving employees more autonomy for structuring their working hours and allow them more time for family, training and qualification. The government wants to create a framework in which companies, employees and social partners can meet the manifold wishes and requirements of structuring working hours. In addition, a legal framework is to be created to promote mobile work.

Does this suggest a change in the law on working hours, as repeatedly demanded by various parties, for example, in November 2017 by the five members of the German Council of Economic Experts for the Assessment of Macroeconomic Development? The coalition agreement is rather restrained here and does not speak in favour of fundamental intervention, especially as the European Working Time Directive sets clear limits for the legislator. The intention to create a legal framework that encourages more flexibility in terms of working hours and location fol-

lows the line of the 'White Paper Work 4.0' presented by the Federal Ministry of Labour and Social Affairs in the last legislative period. The White Paper proposes the creation of business simulation rooms for testing new concepts under the institutional roof of the Initiative New Quality of Work (INQA) and expanding the design possibilities for tariff and business partners. According to the White Paper, new approaches to designing work should be tested under scientific supervision and the effects on health of flexible working models should be accompanied by further scientific research. If the new leadership of the Federal Ministry of Labour and Social Affairs follows the recommendations in the White Paper, the German Social Accident Insurance and its scientific institutes will also be called upon to participate in comprehensive research into new pressures and burdens of the changing world of work in order to support the further development of occupational safety and health into OSH 4.0.

Digitalisation is not only changing how and where we can work, it is also driving the emergence of new business models, resulting in new jobs and forms of employment. This development contributes significantly to the fact that an increasing number of people are no longer in a traditional employment relationship with compulsory social insurance but are self-employed with no staff (solo self-employed), sometimes in quite precarious conditions in terms of income, working conditions and social security. The new federal government is aware of this problem and the coalition agreement includes measures to improve the protection of the self-employed. These include a 'start-up-friendly pension plan' for all self-employed and a reduction in the minimum health insurance contributions for self-employed.

Fundamentally, these are positive initiatives, but the self-employed should also be provided with social protection in their own work - by supporting safe workplace design and health-promoting behaviour, as well as providing protection when there is an accident or illness at work and there is permanent damage to a person's health which prevents or restricts them doing their job.

At first glance, the organisation of this protection may seem difficult both legally and practically, since a self-employed person only has clients and not an employer who is liable for them. In addition, many self-employed who are platform workers or click-workers are often difficult for social security to reach. However, statutory accident insurance already insures many self-employed. This is done either on a voluntary basis or as part of compulsory insurance as stipulated in the statutes of the various social accident insurance institutions.

This option, with the correct legal footing, could be the starting point for protecting the growing number of self-employed workers and including new forms of work in the fabric of the social state as part of its adaptation to the challenges of digitalisation, something the new federal government is seeking to do. Whether the government will take a step in this direction remains to be seen. However, in the context of the core social policy objectives outlined in the coalition agreement, this step could undoubtedly be regarded as a significant development in accident insurance. ■

Dr Renate Colella

Footnotes

[1] Also in an interview with Saskia Osing and Dr Horst Riesenber-Mordeja on Page 38 of this issue entitled: What does the coalition agreement mean? An initial assessment of health and safety announcements from the perspective of the social partners

[2] Decision by the Federal Executive of the FDP, Berlin, 27 April 2017. Supplementary resolutions concerning the election programme

[3] For a more detailed look at the proposals: Occupational Disease Law 2016. Problems - Challenges - Solutions, Publisher: German Social Accident Insurance (DGUV), Berlin 2016

[4] For example: Occupational Diseases. The IG Metall Black Book, Publisher: Department of Work Design and Health Protection of IG Metall, Frankfurt am Main 2013; and the resolutions of the 91st and 93rd Labour and Social Ministers' Conference of the Länder (ASMK), Mainz 2014 and Kiel 2016

[5] Elaboration of the Scientific Service of the German Bundestag (WD 6 -3000-024/17): Individual questions on the recognition of occupational diseases, with reference to the legislative procedure concerning the act to place social accident insurance law in the German Social Code and Bundestag Printed Matter 13/4853

What are the challenges and the opportunities of digital transformation economy for health and safety at work in Europe?

The question was at the heart of the EUROGIP Discussions on Thursday 15 March 2018 (Paris) whose proceedings have just been published. The major round tables addressed this issue from different aspects: the influence of ICT on work organisation, the impact of digital economy on insurance and prevention of occupational injuries with a focus on online platforms workers, the opportunities offered by digital technology to prevent occupational risks, European social dialogue, and the European Commission's point of view.

The influence of ICT on work organisation

As a researcher in enterprises, Thierry Venin has noted that the electronic assistants generate a cognitive overload. The “cult of speed”, greater work intensity and “infobesity” are the everyday lot of managers. We are witnessing a veritable “electronic ping-pong”. Another phenomenon observed is the encroachment of working life on private life, and the transfer of work requiring concentration to private time. The technologies are viewed as “intrinsically positive”, which makes it difficult to speak of one's problems.

Stephen Kinghorn-Perry reports the findings of a forward-looking study conducted by the HSE in the UK in 2016. Smart devices (watches, glasses, telephones, etc.) will expand increasingly, and soon clothing and healthcare devices will measure stress, the pulse, temperature, etc. With the new risks this entails, notably the risk of miniaturization, because “it will even be possible to implant them in the skin.” The spread of these devices could be not only a source of psychosocial risks, because man has endeavoured to adapt to them, but also of physical risks in the event of loss of control of a robot's force, for example. Another danger is the tendency to place excessive confidence in these invasive devices, even in critical situations.

How can enterprises facilitate this change? Liliana Gorla, Human Resources Director recounts the introduction of smart working and the smart office at Siemens France as of 2014. An agreement was reached on teleworking (optional, one day a week) and the right to disconnect was set out formally in an agreement with the employee representatives. Liliana Gorla admits that such radical changes require “significant communication work and a change of corporate culture.”

Recently in France, the right to disconnect was introduced by the “Loi Travail”. This has also been the case in Italy, where a law on smart working was enacted almost one year ago as Antonio Terracina (INAIL) explained.

In Germany, Susanne Roscher (VBG, DGUV in Germany) mentions a report on “Work 4.0” produced in 2016. “We must look at occupational risk prevention in a new light,” she says. Strict rules should be invented to establish a framework for these new forms of work, and above all these solutions should be worked out much faster for a timely dissemination of these technologies in enterprises.

The impact of digital economy on insurance and prevention of occupational injuries with a focus on online platforms workers

Jérôme Pimot co-founder of the CLAP recounts his experience as a courier for several platforms, most recently Deliveroo. He points out the limits to the couriers' independence: time slots imposed by the platforms, uniform, but... no law covering an occupational injury. Pay per delivery remains an obstacle to occupational safety and health, because it provides every incentive to do the most possible deliveries. Moreover, young deliverymen are often not very sensitive to risks and their rights.

In France, the "Loi Travail" obliges platforms to take out accident insurance as of €5,100 in revenues, and some of them have even subscribed as of the first euro.

In the United Kingdom, Bert Schouwenburg explains how his trade union managed to have Uber drivers reclassified as salaried employees. GMB put forward a whole series of arguments demonstrating the drivers' submission to Uber's instructions: control of the work content and the time when work is performed, and reciprocity of obligations (providing work and accepting deliveries). "It was realised that Uber's workers were in reality not independent." This is a first, even though the US giant has appealed against this ruling, citing the fact that the drivers do not have employment contracts and that the principle of substitution of drivers means they cannot be considered as employees. The company also highlights the fact that, when there is no passenger in the vehicle, this time cannot be considered as working time.

According to a study by EU-OSHA on the platform economy, the independent worker status varies greatly from one European country to another. However, the coordinator of this work, Katalin Sas, emphasizes the urgency of taking action, because there are higher risks of injury in these types of jobs. Moreover, since the workers tend to be younger than in other job categories, they are less aware of risk prevention and more attracted by the spirit of competition.

From the regulatory viewpoint, three types of strategy have been identified. First, apply the existing legislation to the new forms of work, with one major difficulty: the platforms refuse to be considered as employers. Second, create a specific status for these workers, with the risk that it will be perverted by the platforms. Lastly, protect platform workers whatever their status, which is the most progressive approach.

According to Joachim Breuer, Director General of DGUV, there is currently no matrix to precisely assess what is happening, how many people work for these platforms, but one thing is certain: their number is significantly underestimated. If 10% to 15% of wealth is produced by platforms and does not contribute to social security systems, this is already a huge amount, and in a very short time it would be tragic for the existing systems. "We must therefore find a way to integrate these new forms of work into our social security systems." Joachim Breuer emphasizes the need to integrate the new insurance solutions into the monopoly public system, because there is a real risk of levelling down by private insurers.

Marine Jeantet, Director of occupational risks (CNAM, France), stresses the fact that these developments will lead the public insurance organizations to be far more agile and reconsider their operating values. She also warns about the "generational shock", convinced that it is essential to find solutions radically different from those of the past. If the definition of work is broadened and it is considered as a productive process

irrespective of the location of the activity, then the risks should be covered by the social security system. Who pays? According to her, coverage must be separated from financing, and so also adapted.

Regarding the risks to be covered, they are not really new. What has changed is how we can act to prevent them, for want of unity of place, work rates, a work community, etc. Hence the need to be inventive.

The spread of applications to better prevent everyday risks, in a personalized manner, also raises the question of the limitations of such uses and the sensitive question of data protection.

Several company representatives illustrated the benefits of digital technology for risk prevention.

At Colas, Construction and maintenance for roads, an exoskeleton was designed to facilitate the work of asphalt rakers, whose job entails substantial physical exertion. It allows better synchronization of the acts of pushing and pulling, and reduces the weights handled. However, this solution remains costly, there's no question of considering ROI: the company has to respond to a challenge of attractiveness of the job and population ageing.

Bruno Magnin, Bouygues Construction, tells of the contribution of the "digital model" for worksite design and work performance which, while it was set up especially to ensure a better work organization, has proved to have positive repercussions on occupational safety and health.

This tool has therefore made it possible to tackle MSDs first, it eases the worker's mental burden, thanks to the reliability of the information recorded regarding his environment. And it's a decision aid tool, "which has already revolutionized how we communicate concerning risk prevention" and that operates extremely well with the new generations.

Yann Favry explains how the family group Schmidt, specialized in the manufacture of made-to-order kitchens, chose large-scale automation ten years ago and revised all its processes. Low-value-added, strenuous manual work stations were replaced with automated systems. At the same time, ergonomic scoring of the work stations was performed. "Attenuating painful conditions improves productivity", repeats Yann Favry.

Lorenzo Munar, in charge of e-tool development at EU-OSHA, recalls the success of OiRA (Online interactive risk assessment). There are about 50,000 users and 70,000 risk assessments have been performed with OiRA. This tool is also used for self-training.

Stéphane Pimbert, Director General of INRS in France, recalls that eight years ago the INRS undertook strategic planning work, on robots, nanotechnologies and platformization. The Institute also conducts work on exoskeletons and human-robot collaboration, notably to be able to influence the European standards and have an impact on risk prevention as of the design stage. On the whole, these tools are beneficial to keep pace with population ageing and combat the increasing prevalence of MSDs. But we should be careful not to install them indiscriminately at the risk of causing other problems for their users.

Another challenge is the artificial intelligence. “There already exist safety sensors in clothing, to detect carried loads and vibrations; it is very positive, but if it is used by the employer to calculate painful conditions we are more reserved regarding the objective,” warns Stéphane Pimbert. On the subject of platformization, he suggests allowing for health and safety as of the software design and configuration stage, e.g. to include in them time for breaks. Some platforms are thinking about this, he says. He also points out about the importance of involving operators in the design and implementation of the new tools which will change their job. “Digital tools are tending toward greater personalization of OSH, whereas at present priority is given to the collective aspect”.

The point of view of European social partners and European Commission

Thiébaud Weber (ETUC) recognizes that the introduction of new technologies can lighten the workload for workers, but warns that: “If this means imposing infernal work rates without the presence of trade unions, the answer is no!” Regarding the platforms, he asserts that “When there is subordination, the platform must be responsible.”

John Harkin (Ceemet) sees more opportunities than threats in the spread of the new technologies, but worries about the responsibility of employers with regard to the health and safety of nomadic workers, supposed to apply preventive measures without being on site. Likewise, when similar technologies are used in the private sphere and the work sphere, “the employer cannot be responsible for everything,” he asserts. Social dialogue is therefore essential. In his opinion, one of the major changes concerns workplaces and the question of the balance to be found between private life and working life.

To conclude, Jorge Costa-David asserts that for the European Union, the digital economy is an opportunity more than a risk. Platformization, Work 4.0, we are just starting to feel their effects, but it is clear that, on these subjects, social dialogue is essential. Hence the importance of the Luxembourg Consultative Committee and the working groups established. At present, the Commission is working out precautionary guidelines. When precautions are taken, this means that the risks have not necessarily been properly characterized.

The Commission is not currently in a regulatory approach, but rather in a “soft law” approach. Why go down a restrictive path and “be nasty” in the event of non-application, if you can get there by dialogue? ■

*Isabelle Leleu
EUROGIP
leleu@eurogip.fr*

Proceedings available in French at https://www.eurogip.fr/images/Debats/DebatsEurogip2018-Numerique_et_SST_en_Europe-Actes.pdf

Fume events - a relevant phenomenon for accident insurance systems?

In Germany, a growing number of employees working in the airline industry reports health impairments, which they attribute to so-called fume or smell events. These events or incidents affect flight attendants and pilots alike and have been covered repeatedly by the media across Germany. According to the German social accident insurance institution for the transport industry (Berufsgenossenschaft Verkehr), around 920 of these incidents were reported as work accidents in 2017. Since 2013, the number of reports has increased from about 300 to 830 in 2016 and 920 in 2017. In 80 percent of the incidents reported in 2017, the person concerned saw a physician - as a precautionary measure - and went back to work after less than three days.

Against this backdrop, the question arises in how far incidents that are known as “fume or smell events” or “bleed air contamination” are of relevance for accident insurance systems. Not only because of the “cross border impact” of flying is it interesting to see how the subject is discussed in other European countries.

What is a fume or smell event?

For a couple of years, the German Federal Bureau of Aircraft Accident Investigation has been receiving reports on so-called “fume events”. These events “include smell, smoke or vapour” emissions inside airplanes that may lead to “health impairments of aircraft occupants”.

Some have raised concerns that fume events may affect the health of crews and passengers. Crew members, labour unions, the media and political institutions have discussed the subject repeatedly.

The aerotoxic syndrome

The term “aerotoxic syndrome” describes various health impairments and reactions that are reported after contaminated cabin air or fume events on airplanes. It was first introduced in 2000 to describe the short-term or long-term health impairments which are said to result from breathing cabin air that might have been contaminated by engine oils or other chemicals to toxic levels.

A report by Michael Bagshaw, Prof. at Kings College London, from 2013 comes to the following conclusions: “Persons describe a wide range of inconsistent symptoms and signs with much individual variability. The evidence was independently reviewed by the Aerospace Medical Association, the US National Academy of Sciences and the Australian CASA Expert Panel. All concluded there is insufficient consistency to establish a medical syndrome. Therefore the aerotoxic syndrome is not recognized as such in aviation medicine”.

However, according to a study from 2012 by the “Danish National Research Centre for the Working Environment”, the inhalation of smoke and gases is one of the most common injuries among cabin crew members

It is currently not clear what causes poor-quality cabin air. So far, researchers have investigated a range of possible causes and contaminants.

In most commercial airplanes, compressed bleed air is used to pressurise the cabin. It is possible that this air contains oil particles. The substance Tricresyl phosphate (TCP) was suspected as a possible cause of health impairments reported by crew members. However, even intensive research could not produce any evidence to substantiate this hypothesis. According to the Bagshaw report, a “German study in 2013 of 332 crew members who had reported fume/odour during their last flight, failed to detect metabolites of TCP in urine samples. The authors concluded that health complaints could not be linked to TCP exposure in cabin air”.

Research in Germany is currently focused on substances from the group of volatile organic compounds and other substances from the group of organophosphates. A biomonitoring study has been initiated in order to find out if these chemicals might cause health problems.

Whether ground and flight crews, as well as passengers can be sources of contaminants such as pesticides, bioeffluents, viruses, bacteria, allergens, and fungal spores is another avenue of investigation.

In 2017, the European Aviation Safety Agency conducted the research project "AVOIL Characterisation of the toxicity of aviation turbine engine oils after pyrolysis" and summarized the findings in a final report. The objective of the AVOIL study was to characterise the toxic effects of chemical compounds that are released into the cabin or cockpits of transport aircraft.

The report stated that since 1999 there has been an increase in reported incidents of in-flight smoke/fume events, with a small number of crew members reporting adverse health effects that they associate with the events.

The report also raises a couple of unknowns:

Are there substances present in cabin air which cause harm to health?

- Why is there such individual variability in perception, response, symptoms and signs?
- Why do some crews in a limited geographical area report a wide variety of symptoms attributed to contaminated cabin air, yet others world-wide do not?
- Why are there no reports from individual passengers on pressurised aircraft?"

A report on two studies dating also from 2017 concludes that the lack of an internationally accepted protocol for investigating aircraft fume events complicates their understanding. The report proposes a protocol that

includes a checklist using standardized methods that enable the sampling of standardised consistent data.

Why are fume events of interest for accident insurance institutions?

The German example

Contaminated cabin air can affect persons on aircraft, passengers as well as crews.

When a crew member reports health impairments because of a „fume event“ during a flight, the statutory accident insurance in Germany is obliged by law to examine if the incident qualifies as a work accident or the health problems as an occupational disease and if any treatment or compensation should be granted.

If the reported health impairments are the result of a single incident, they can be recognised as a work accident. There needs to be proof, however, that there is a causal link between the work activity and the health problem. Pre-existing conditions or illnesses or health problems reported by non-business passengers cannot be recognised as a work accident.

Health impairments because of contaminated cabin air cannot be recognised as an occupational disease in Germany. So far, the aerotoxic syndrome does not meet the legal criteria for occupational diseases. There is not enough evidence that crew members on airplanes are exposed to a specific hazard or harmful agent to a significantly higher extent than the general population. It is not clear if crew members are more affected than passengers (in particular, those who fly frequently). The EASA summary from 2017 raises the question why crew members increasingly report fume events by but passengers do not. These questions have hitherto remained unsolved.

The accident insurance institutions in Germany are also responsible for the prevention of work-related health hazards. They have the statutory mandate to investigate the

causes of health problems at work and to assist companies in reducing accident and disease risks. Therefore, the German social accident insurance and its partner research institutes have intensified their research in this field and currently conduct a biomonitoring study in order to find out which substances might cause health impairments.

As part of this study, a standardized procedure has been developed for crew members who have experienced a fume event. This procedure has introduced a single point of contact: one unit is responsible for the fume and smell event and decides after diagnosis and results of examinations. The advantage: concentrated expertise and knowledge.

Furthermore, all companies involved have agreed to report incidents as „work accidents“ as part of the standard procedure „fume events“ that has been developed together with all stakeholders and experts. This procedure includes a reporting procedure in case of a fume event after landing. Crew members who detect health impairments shall see a physician immediately.

The company must send an accident report to the accident insurance institution.

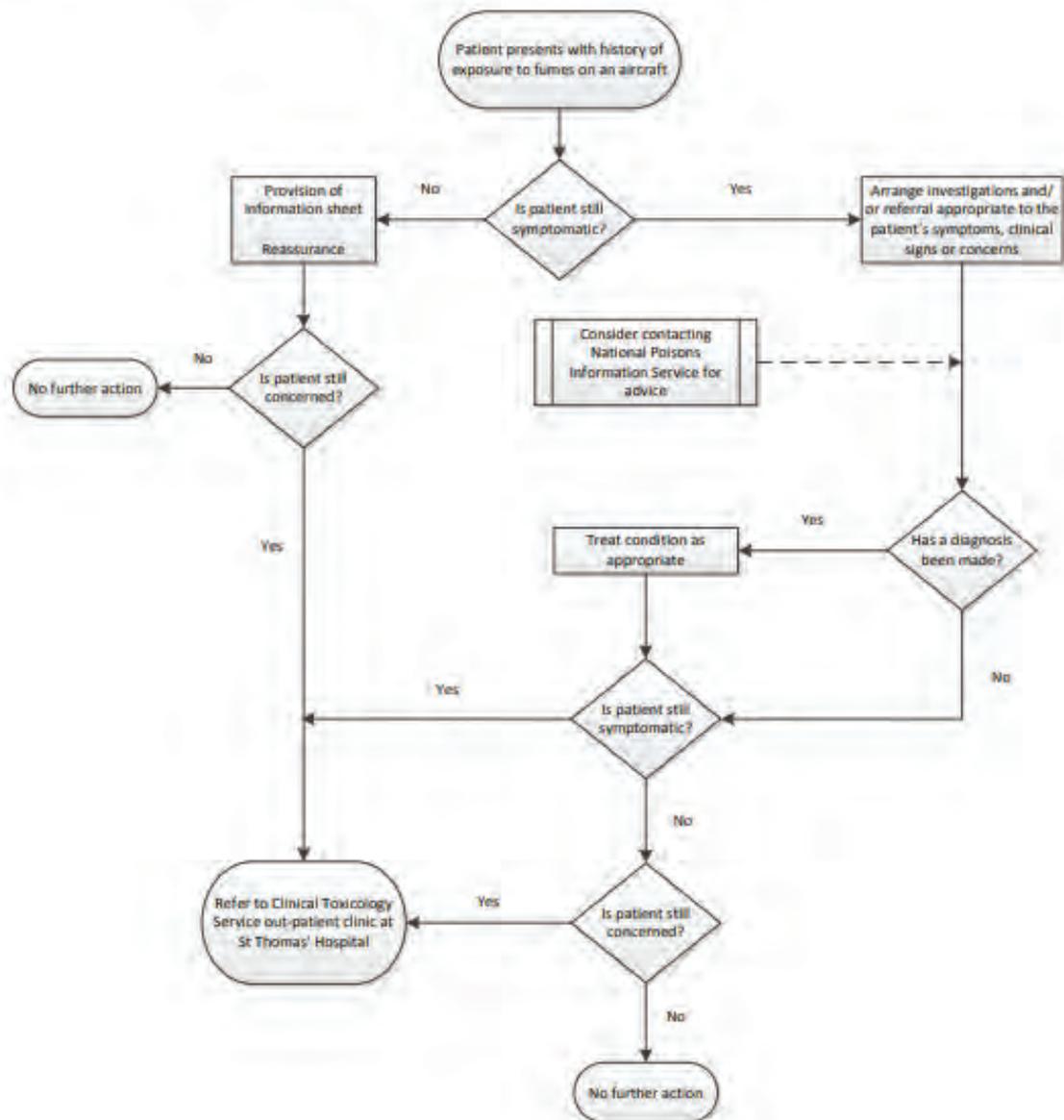
To this date, there has been but one instance in which a worker affected by a fume event sued the competent insurance institution in order to have health problems recognised as the result of work accidents. The case was dismissed by the social court of Berlin because there was no proof for a causal connection between fume events and the health impairment.

Fume events across Europe?

In the first half of 2018, members of the “working group legislation” of the European Forum from 11 countries participated in a survey as to the incidence of fume events in their respective jurisdiction. The survey showed that in most countries the subject is not discussed intensely. Most respondents stated that there are no known cases or that there is no information on any recognised cases. In Denmark, 4 cases could be tracked but there was no recognition of a work accident yet. Finland’s workers’ compensation scheme has accepted only a few cases as cases for compensation. Even if there are no known cases, most countries report that they would generally recognise health impairments after fume events as work accidents. In Finland, such cases can be recognised as occupational diseases as well. This is also the case in Denmark. Other countries replied that recognition would depend on the case (i.e. the duration of exposure, consequence of work or lack of other external causes). In 5 countries, fume events and the aerotoxic syndrome cannot be recognised as occupational diseases. In France, this is also the case for work accidents.

Half of the countries that participated in the survey reported that there is a public discussion as to fume events. Besides Germany, Belgium, Denmark, France and Switzerland reported that there were debates or reports in the media or at the political and institutional level. In Finland, the subject was discussed several years ago during a legislative reform. In France the topic was presented in the media in 2016 following the lawsuit of a pilot. Since 2016, there exists also an association of victims in France. In Belgium, the competent branch of the government has recently sought advice from the Scientific Council as to the aerotoxic syndrome.

NHS CARE PATHWAY PATIENTS EXPOSED TO FUMES ONBOARD COMMERCIAL AIRCRAFT



source: http://www.caa.co.uk/uploadedFiles/CAA/Content/Standard_Content/Passengers/Before_you_fly/Health/NHS%20CARE%20PATHWAY.pdf

In the UK, the pilots association BALPA, the Civil Aviation Authority, the National Health Service (NHS) and scientific committees provide information about the topic. BALPA has pointed out that the installation of bleed air filters or detection devices might mitigate bleed air contamination in principle. However, BALPA emphasises that they do not advocate the existence of the “aerotoxic syndrome” in particular. According to the association, the syndrome comprises a wide range of symptoms, which are common in the general population and affect even persons who have not yet flown. In the UK, an instrument for the investigation of health effects of contaminated cabin air that is also supported by BALPA is the “cabin air care pathway” an information tool provided by the British Civil Aviation Authority. The National Health Service provides a “health care pathway” for “PATIENTS EXPOSED TO FUMES ON-BOARD COMMERCIAL AIRCRAFT.”

Conclusion

Fume events, bleed contaminated cabin air and the aerotoxic syndrome have been the focus of scientific debate and public discussion for many years. The intensity of the debate varies from country to country. Why there is more awareness and discussion in some countries than in others remains a question to be answered. One explanation may be that the intensity of research and detection methods as well as monitoring varies a lot across Europe. Countries that discuss and report fume events intensively such as Germany and the UK might conduct more research and standardized procedures than others. To this date, however, it is a mystery why crew members report more often about fume events than passengers and what causes the various health impairments reported.

Fume events challenge accident insurance systems on various levels: insurance institutions must investigate the question of whether an agent can be identified that poses a risk to crew members and passengers. Identifying such an agent would not only help to determine whether health problems – such as the aerotoxic syndrome – can be recognised as the result of a work accident or occupational disease (and compensated as such). It would also point the way to possible solutions to the problem (e.g. air filters that may reduce contamination). The working group legislation will discuss the topic again during its meeting in autumn. In the meantime, accident insurance institutions interested in sharing and exchanging information on fume events and the aerotoxic syndrome may contact the chair of the working group at eva-marie.hoeffler@dguv.de

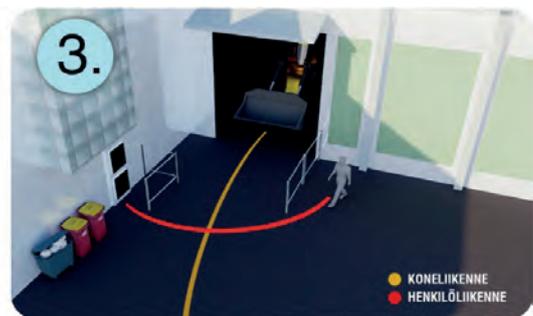
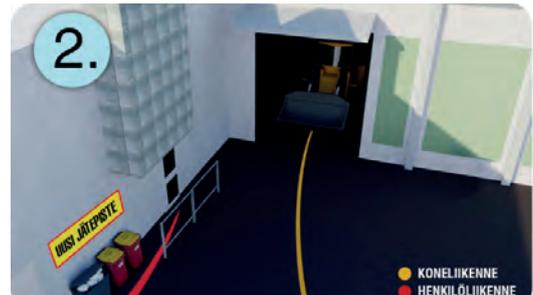
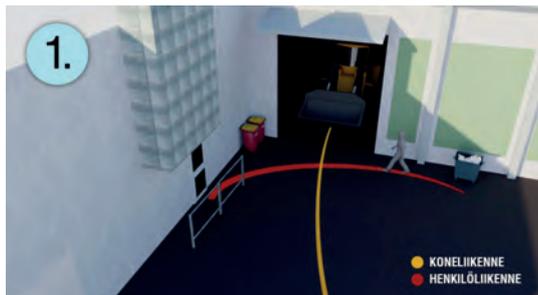
Items of particular interest include:

- Data concerning the number of cases of aerotoxic syndrome (or a related health problem attribute to exposure to a fume or smell event)
- Legal criteria that govern the recognition of health problems attributed to fume or smell events as the consequence of a work accident or as an occupational disease
- Research projects or findings concerning the nature of fume or smell events and possible hazardous substances in airplane cabin air ■

*Eva-Marie Höffer
Chair Forum working group legislation/
DGUV
eva-marie.hoeffler@dguv.de*

Fatal workplace accident investigation Finnish style

In Finland, approx. 20 - 30 fatal workplace accidents happen to insured employees every year. In 2017, nineteen (19) fatalities were reported to Finnish Worker's Compensation Center (TVK). All these accidents are unnecessary and could be avoided. TVK has the objective to prevent similar accidents by safety investigation.



Finnish Worker's Compensation Center (TVK) has a long tradition in investigating workplace accidents. Since 1986, TVK's accident investigation has been known as TOT-investigation, where TOT stands for workplace accident investigation. To enhance safety at work it is important to investigate accidents that we can learn significant new safety knowledge. Only selected fatal accidents that match the criteria are studied in TOT-investigation. The objective is to enhance safety at work by finding out the hazardous events and safety factors that lead to accident and by presenting prevention measures. There are over 900 TOT-reports to download free at toti.tvk.fi. Unfortunately, bulk of those are only available in Finnish. TOT-reports are well known, with more than 100 000-downloaded reports a year.

Not all fatal workplace accidents are studied in TOT-investigation. Therefore a Year ago we also launched a new website <http://tyopaikkakuolemat.fi>, which contains short demonstrative descriptions of fatal workplace accidents. Mainly of those cases that are not studied in TOT-investigation. In these descriptions, we are using different kinds of methods like 3D modelling, illustration and videos. The objective is to publish easy to understand, fast and modern case studies.

Picture 1:
Illustrative drawing of a case report 4/2016 (<http://tyopaikkakuolemat.fi>)

At the beginning of 2018, TVK started a co-operation with The Finnish Center for Occupational Safety (TTK) to get the best knowledge and to develop new ways for reporting the accidents. As a result, we did an animation of an accident that has been studied in TOT-investigation (Report: TOT 2/17). The accident took place in a factory that produces heavy machinery products. With this animation, we are hoping to get a different and even more interesting approach of reporting the accident. You can watch the animation on TVK's YouTube channel.

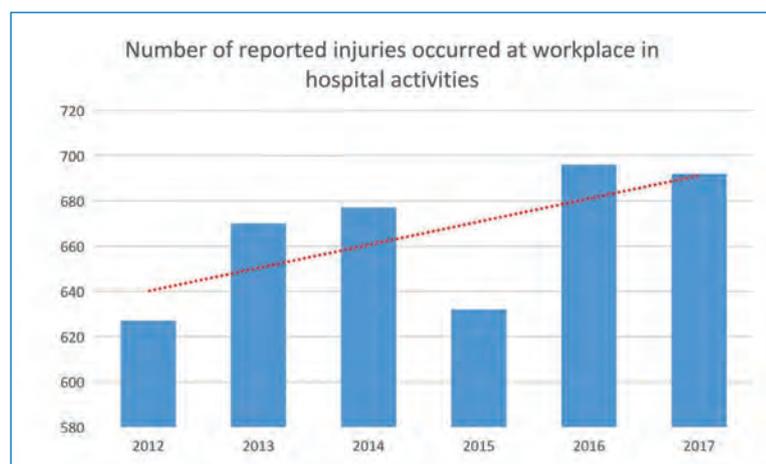
More information:

- [Here](#) you can read more about TVK's investigation of accidents at work
- More about TOT investigation procedure [here](#)
- Latest English version of TOT-report: [TOT 5/16](#) Worker trapped under collapsing soil mass when doing sewage work on a terraced house ■

*Text: Otto Veijola, TVK
Pictures: copyrights TVK*

Croatia: Project of promotion health and safety at work in hospital activities

Despite the fact that the total number of reported injuries at work in the Republic of Croatia shows a tendency to fall, processed data obtained from the Information System of the Croatian Health Insurance Fund (CHIF) indicate an increase in the number of reported injuries at work in hospital activities.



Source: Information System CHIF

According to the number of reported injuries at work of persons older than 55 years, hospital activities are also in the first place. This number shows a tendency of growth.

The most common causes of reported injuries in clinical hospital centres are malfunction of surface or improper surface on which the work is performed, working operation without applied safety rules, malfunction of the working tool, unlawful actions of third parties, disorders in the process of work, working operations without usage of appropriate personal equipment or usage of defective protective equipment and last but not least fatigue due to hard work or overtime work and insufficient rest. Consequently, the most common diagnosis of reported injuries at work at clinical hospital centers also includes acute stress response diagnosis.

The Project promoting health and safety at work in hospital activities, initiated by CHIF, is coordinated with the Croatian National Program for the Protection of Health and Safety of Persons in Health Care Activities for the Period from 2015 to 2020.

The objectives of the Project are:

1. Presentation of information on the importance of health protection at work including promotion of the culture of safety and prevention in the context of an ageing workforce;
2. Education about acute hazards and risks in the workplace and training about the maintenance of working capacity including training of workers suffering from chronic diseases;
3. Presentation of information on the importance of proper use of personal protective equipment;
4. Standardization in the process of procurement of so-called "white program" in hospitals including aids for handling of patients;
5. Strengthening awareness of the importance of reporting unwanted events, regardless of whether they have caused work injury or not, with aim to identify the direct, indirect and fundamental causes of the incidents, in order to prevent the repetition of the same or similar events and in order to identify ways of improving the work procedures and instructions, taking particularly into account a risk of sharp injuries.

What we expect of this Project? The results we hope to achieve are: informed employers in healthcare sector, informed and educated healthcare workers, improved level of health, safety and satisfaction of healthcare workers with positive influence on healthcare sector.

The project started by conducting a survey to identify health workers' attitudes on safety and health at work, mistakes that may occur including unwanted and unexpected events.

The survey questionnaire was prepared in cooperation with the Department of Health Ecology and Occupational Medicine at the Faculty of Medicine of the University of Zagreb and with the Croatian Institute for Health and Safety at Work.

The questionnaire included issues divided into the areas of the workplace, the communication within the organization, the frequency of reporting unwanted events, the level of safety at the workplace and the role of management in the health protection and safety. The closing part of the questionnaire also offered the opportunity for comments of the respondents.

Survey results point to the areas in which the action is needed. Comments from respondents also indicate the activities to be taken to improve the level of safety and health at work.

The survey results showed the following positive aspects: Most respondents consider that their bosses and supervisors are encouraging work in a safe manner and adopt workers' suggestions for improving safety. According to the point of view of most respondents, work procedures and organizations influence the reduction of unwanted events.

The survey results also show some negative aspects: Workers are afraid of that an unwanted event, that almost caused an injury at work, will remain marked in their file. Respondents think that management takes care of work safety only when an unexpected event occurs. Most respondents state that after introduction of safety improvement measures, their effectiveness is not evaluated.

Respondents' comments are focused on the need for education and advices, pointing to the need to prevent psychosocial risks and to improve the work organization, work environment and work equipment.

Some comments have pointed out that the protection and safety of workers should be ahead of the profit.

Comments indicate that there are frequent injuries due to inadequate working footwear and that there are frequent fracture injuries due to slippery and irregular walking surfaces. The surveyed healthcare workers in their

comments also stated frequent injuries due to lifting or relocating patients.

In accordance with the survey analyzes, in the continuation of the Project, a meeting with the management of clinical hospital centers was organized with participation of CHIF representatives, representatives of the Ministry of Health and representatives of the Croatian Institute for Health and Safety at Work.

With the aim of improving the system of health and safety at work in hospital institutions, the results of the analysis of the conducted survey were discussed, as well as planned further activities within the Project.

In order to contribute to the Project, CHIF has in its regulations normatively regulated the implementation of planned education and counseling, carried out by occupational medicine specialists in collaboration with psychologists and occupational safety specialists.

As part of the project activities, a working group has been set up to produce a unified procurement catalog for the so-called "white program" with key specifications, including the specifications of procurement of appropriate working footwear, taking also into account procurement of appropriate aids for handling of patients.

In agreement with the management of clinical hospital centers, Project evaluation will include re-conducting survey among healthcare workers, analysis of survey results and, if necessary, adopting new corrective measures.

We believe that the Project promoting health and safety at work in hospital activities will contribute better and safer working conditions, greater motivation, improved work results and well-being of health workers. ■

*M.Sc. Vinka Longin Peš, LLM
Division for Health Protection at Work
Croatian Health Insurance Fund
Margaretska 1, 10000 Zagreb, Croatia
t: +385 (0)1 6387 522, f: +385 (0)1 6387 524
m: +385 091 2550 738,
e: Vinka.LonginPes@hzzo.hr
www.hzzo.hr*

“Surefooted through Life” – Update on the Campaign of the Social Insurance for Agriculture, Forestry and Horticulture (SVLFG, Germany)

Together with its partners and with the aid of the Federal Ministry for Education and Science, the Social Insurance for Agriculture, Forestry and Horticulture (SVLFG, Germany) conducted a broad-based scientific campaign entitled “Surefooted through Life” (see Forum News N° 43 – 12/2015 and No 44 – 05/2016).

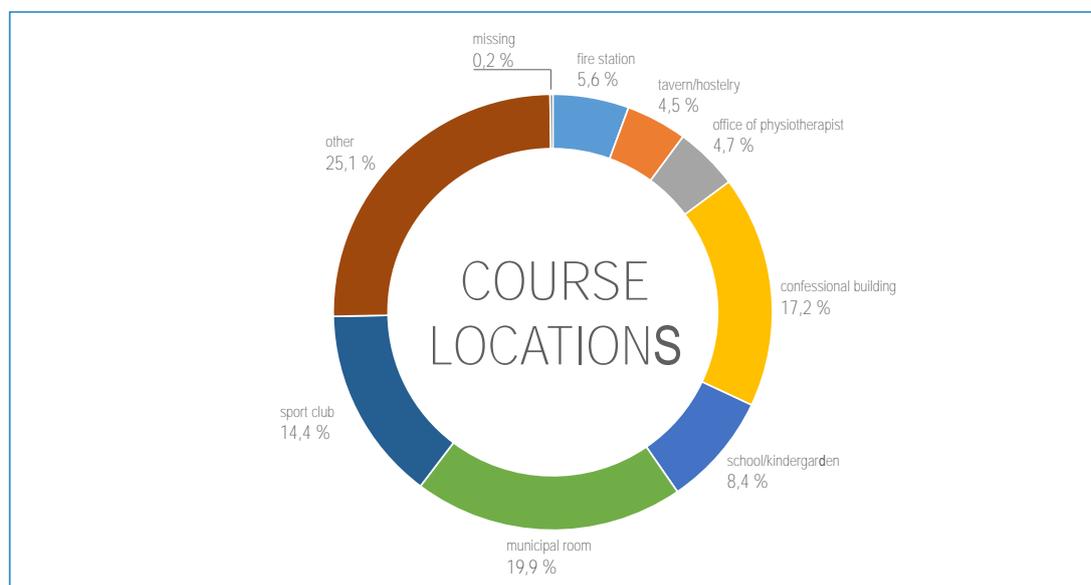
First results

The campaign is now complete. Although the scientific evaluation by the University Hospital Hamburg-Eppendorf (UKE) is still pending, a number of initial results and important findings are available:

Since the start more than 1.650 courses have been implemented, the mean number of participants per course is 11.3, the median number of training sessions is 5.4 from 6. These are just a few of a whole series of success data. Other data appear to be of little relevance at first sight, but are not on closer inspection, on the contrary: It was determined that the average distance from the place of residence of the course participants to the course location was only 1.7 kilometers. This proves that it is possible to organize health and prevention services in rural regions very close to the addressees' homes.

Innovation

The campaign has shown the great potential of cooperation between organizations present in rural areas. For the first time it became clear what previously unexploited possibilities exist to counter health disadvantages of people living in rural areas. It turned out that the role of the field staff of the agricultural accident insurance is very important in two respects. On the one hand they can motivate people to take part in courses because of their trusting relationship with the farming families, and on the other hand they can provide valuable information for safety and health during their farm visits.



Organisation of the Trittsicher mobility and fall prevention courses

LandFrauen organize the courses in the countryside. They know the special logistical possibilities on site. That is why the courses take place there, so that it is most convenient for everyone involved.

What works

The success of each course depends on the commitment of the course leaders involved, the LandFrauen and the SVLFG staff. Surveys have shown that almost all of them find working with the elderly enriching and motivating. The courses are free of charge for participants. Due to the so-called setting approach, billing is easily possible with all health insurance companies. Sustainability is to be ensured through further course participation, continuation of exercises in sports clubs or at home. Training materials are provided for this purpose.

Next steps

Because of the overwhelming success and the strong demand, the courses are to be continued and gradually offered throughout Germany. With the support of the Federal Ministry of Agriculture, plans are being worked on to include aspects of healthy nutrition in the course agenda in the future. ■

*Social Insurance Institution for Agriculture,
Forestry and Horticulture Workers (SVLFG), Germany
www.svlfg.de*

Italy: From Inail and Bio-Medical Campus a bionic arm that controls itself as a natural arm

ROME – A 27-year-old woman who, a year and a half ago, lost her right arm in a serious road accident can come back to grab and manipulate objects thanks to a bionic prosthesis, as a result of scientific collaboration between the Bio-Medical Campus University of Rome and Inail Prosthesis Center.

After the surgery recently carried out at the Roman university hospital to transform the muscular bundles of the major pectoralis – unused after amputation at shoulder height – into multipliers of the nerve signals, the bionic prosthesis will be applied to the patient at the Inail Center of Vigorso of Budrio. It is a revolutionary intervention with very few precedents in the world. In particular, in Italy, it is the first time that a person with this type of amputation can control a bionic prosthesis even at the level of the shoulder joint.

The technique behind the operation carried out by the team of Vincenzo Denaro, full professor of Orthopedics and Traumatology of the Bio-Medical Campus, supported by Oskar Aszmann, a Viennese surgeon who has already carried out other operations of this type, is the so-called “Targeted Muscle Reinnervation” (Targeted muscular reinnervation). When the impulses of the brain reach the muscles of the major pectoralis, surface pick-up electrodes transmit them to the prosthetic arm with a thousand times

greater intensity. On the bionic prosthesis special skin stimulators will be placed to transmit to the brain the tactile sensations regarding the consistency of the objects held by the artificial limb, thus allowing them to be gripped and manipulated.

This intervention is the main point of the research project that Inail is carrying out with the co-operation of Bio-Medical Campus. The goal is to improve the quality of life of injured workers, through the development of clinical practices that allow to fully use the most advanced prosthetic solutions made available by new technologies. The realization of the bionic prosthetic arm at the Budrio Prosthetic Center will take place in 4-6 months, after completion of the muscular reinnervation process, and will be followed by an intensive training phase of about three months to teach the patient to control the movements. ■

*Bernardo Sabetta
INAIL, Italy
www.inail.it*

News from Sweden

The past winter was extremely harsh in parts Sweden, and in the middle of April the snow was still more than 100 cm deep in parts. Large flocks of reindeer stray along the roads, as I became aware during a trip to a workshop in Vilhelmina in the middle of April!

But summer finally came, and a big event for us was the Almedalen week in Visby in July. Initially started by the late prime minister Olof Palme in the early 70's, the event was called "politikerveckan" ("politicians week") and it was primarily a forum for the political parties and media.

Over the years the event has grown, and this year close to 5000 seminars was held in one week. It has become a forum for companies, unions, lobby organizations and every association of interest imaginable. Some 30 000 visitors were expected this year, and since 2018 is an election year in Sweden, there was a lot of debates, hearings etc.

AFA Försäkring has been a part of Almedalen for a number of years, and had a large contingent present this year too. Our theme this year was the physical work environment. Together with scholars and practitioners, we discussed out some of the myths that have featured the debate about the good working environment. What is actually the case and how should we improve the work in progress? What behaviors shape our working lives and how we can break inward patterns to promote a good physical work environment?

Our three seminars all had different themes, but all bonded with the main theme: Physically demanding jobs, Challenges in office environment, and Changes in human behaviour.

This year we also tried something new: Borrow an expert!

"The idea has been with us some time when we discovered that several of the other organizers' seminars in Almedalen could have become more interesting and rewarding to the spectator if any of our experts had been invited. This was the first time we focus more on our experts in this way. Their responsibilities are those that best cover our entire business," says Caroline Rylander, Press Manager. The experts are knowledgeable in the areas of work environment, occupational injuries, sustainable real estate and / or collective agreements and can participate in other organizers' programs around these topics.

Our experts did take part in quite a few seminars, and hopefully they did contribute, adding value to the debate. One of the seminars arranged by AFA Försäkring contained the fascinating subject "Smart clothes – incorporating new technology in preventing work injuries". I will return in the next issue of Forum News with a piece on this seminar. ■

*Afa Försäkring
Per Winberg*

IMPRESSUM

Media owner and publisher: AUVA
Austrian Workers' Compensation Board

Place of publication: Vienna