

## SEMINAR — FIGHTING CANCER AT THE WORKPLACE EU ROADMAP ON CARCINOGENS

Düsseldorf, 18 October 2017

### Introduction

Cancer is estimated to be the leading cause of work-related deaths in the EU. Many of these are estimated to be caused by carcinogenic substances in the workplace. This is why the protection of workers from work-related cancer risks has been recognised as one of the key challenges for the safety and health of workers in the 21st century. The Netherlands Presidency of the European Council, the European Commission, the European Agency for Safety and Health at Work (EU-OSHA) and the European social partners therefore subscribed, on 25 May 2016, to a voluntary action scheme to help combat work-related cancer. This 'roadmap on carcinogens' aims to raise awareness of the risks arising from exposure to carcinogens in the workplace and, at the same time, pave the way for better protection of workers through the exchange of innovative and effective prevention measures.

The seminar was jointly organised by EU-OSHA; the German network of regional labour inspectorates (LASI), represented by the Hessian Ministry of Social Affairs and Integration and other regional authorities; and the Senior Labour Inspectors Committee (SLIC)'s CHEMEX group, chaired by the Health & Safety Executive in the UK. It was to present and discuss the latest developments in the EU and Germany. It took place on 18 October 2017 at the A+A 2017 Safety, Security and Health at Work — International Trade Fair in Düsseldorf, Germany. About 120 participants attended the seminar. Presentations were in German and English. A simultaneous translation was provided.

The occupational safety and health (OSH) authorities of the regions in the Federal Republic of Germany have made the fight against occupational cancer a priority in the framework of their multiannual strategy. Labour inspectorates in North Rhine-Westphalia (NRW), Hesse and Thuringia have inspected selected workplaces with carcinogenic substance exposure. First results are now available and were presented at the seminar.

The SLIC has endeavoured to support the prevention of long-latency disease. As a first initiative, its CHEMEX group has developed a guide for national labour inspectors on the prevention of silica exposure in the construction sector.

EU-OSHA is raising awareness about the importance of the prevention of exposure to carcinogens in the framework of its Healthy Workplaces Campaign 2018-19.

The first part of the seminar was chaired by **Dr Elke Schneider** from EU-OSHA and **Dr Michael Au** from LASI, who welcomed participants and introduced the workshop agenda. The morning session consisted of five presentations addressing the issue of carcinogens at the workplace from different perspectives. It was closed by a panel discussion with representatives of the social partner from the Advisory Committee on Safety and Health at Work (ACSH)'s Working Party on Chemicals (WPC) and the speakers.

The second part of the seminar was chaired by **Kären Clayton** from the SLIC, Chemex group, and **Dr Michael Au** from LASI, who introduced the afternoon session. The afternoon session consisted of four presentations highlighting different strategies to fight cancer in the workplace. Following the presentations, a panel discussion took place on 'National strategies to tackle work-related cancer' and discussions with the audience concluded the afternoon session.

## Session 1

### *Welcome and introduction to the seminar*

Introduction, Dr Michael Au (LASI), Dr Elke Schneider (EU-OSHA)

The workshop was opened by Michael Au, who drew the attendees' attention to the alarming fact that cancer is estimated to be the leading cause of work-related deaths in the EU, mainly caused by chemical substances. This alarming trend is reason enough for a joint initiative to identify problems, to stop the development and to reverse trends. He underlined that cancer at workplaces is not only a national problem, but a European one. He called on relevant actors to focus on a better future and to work jointly on a European solution to prevent cancer at workplaces.

Elke Schneider briefly presented on EU-OSHA, which was set up in 1994 by the EU in Bilbao to help promote a culture of risk prevention at workplaces. She reminded the audience that occupational exposure to dangerous substances is still an important issue in Europe, as the situation in the EU has remained the same for about 20 years. According to the European survey on working conditions (ESWC, 2015) about 17.3 % of workers are exposed to chemical products or substances at least a quarter of their working time. Furthermore, 13.4 % of workers are exposed to infectious materials. According to the Agency's enterprise survey, 38 % of EU enterprises stated that dangerous substances are present in their workplaces (ESENER-II, 2014). Dangerous substances are estimated to cause about 10 times more deaths than fatal occupational accidents.

She informed the audience about the roadmap on carcinogens, which is a voluntary action scheme; several partners engaged in May 2016 to promote the prevention of risks caused by carcinogens, namely the Dutch and Austrian ministries of labour, the European social partners and the European Commission, as well as EU-OSHA. The main aims of the roadmap on carcinogens are to share good practices between companies and organisations and to encourage and help others to raise awareness and share knowledge.

EU-OSHA will also launch a 'Healthy Workplaces' campaign in April 2018 dedicated to the management of dangerous substances. One of its priorities is the protection of workers from the risks of carcinogens, with a special emphasis on those in micro and small enterprises. It includes a Healthy Workplaces Good Practice Awards competition. The European Weeks for Safety and Health at Work will take place in October 2018 and 2019 and in November 2019 the campaign will end with the Healthy Workplaces Summit.

Elke Schneider invited the audience to ask questions and to take part in the discussions. She expressed her wish to have an active debate. After each presentation there was the opportunity to ask questions and the audience was invited to also contribute to the roundtable discussions in the morning and afternoon sessions.

### Speeches

#### ***European Commission — the EU OSH framework for carcinogens, Christian Heidorn (DG Employment, Social Affairs and Inclusion — Health and Safety Unit — DG EMPL)***

Cancer is still the main cause of work-related deaths: 52 % of occupational deaths are attributed to cancer compared with, for example, 24 % for circulatory deaths. In total, 106,307 deaths are estimated to be caused by cancer at work every year in the EU. Therefore, there is strong support from all stakeholders for establishing occupational exposure limit values (OELs) for carcinogens according to the Commission's latest action plans. In this context, Christian Heidorn quoted Mr Juncker, who stated in 2016 that 'the modernisation of existing occupational safety and health legislation to better protect the safety and health of workers, through better implementation, an updated legislative framework and enhanced protection from the risks related to carcinogens and mutagens is part of the 10 priorities for the forthcoming year'. Christian Heidorn also highlighted that there is high pressure from the European Parliament committees to work further on OELs.

Following the evaluation of the OSH *acquis*, the European Commission published on 10 January 2017 a communication entitled 'Safer and Healthier Work for All — Modernisation of the EU OSH Legislation and Policy'. The legislative tools are based on the OSH Framework Directive (89/391/EEC), which sets out the principles and basic minimum requirements for measures to improve safety and health at work. The Carcinogens and Mutagens Directive — CMD (2004/37/EC), the Chemical Agents Directive — CAD (98/24/EC) and the Asbestos Directive (2009/148/EC) are the main pieces of a comprehensive framework for the protection of workers from exposure to carcinogenic and mutagenic substances.

**Christian Heidorn** explained the current process for establishing limit values under the CMD. The process starts with the selection of priority chemicals; the Commission establishes a list of priority chemicals in consultation with the social partners. Then the Commission issues a mandate to the Scientific Committee on Occupational Exposure Levels (SCOEL) or the European Chemicals Agency (ECHA) Committee for Risk Assessment (RAC) to carry out an evaluation that is subject to a public consultation before adoption. Following that, an external study may be launched by the Commission to support the discussions in the WPC of the ACSH, a tripartite body advising the Commission. The WPC discusses the scientific evaluation, develops an opinion, taking into account the feasibility, and presents it to the plenary of the ACSH for adoption. Subsequently, the legal process starts. A new element under the 'Better regulation' agenda is the impact assessment (IA), which has to be drafted by the Commission. The IA assesses the benefits and costs of the different policy options against a baseline scenario, which often refers to 'no action taken'. It takes into account certain parameters relevant to the health effects (duration and intensity of exposure, maximum latency period for the health effects to appear). The draft IA is then submitted to the Regulatory Scrutiny Board. After a positive decision of the Board, the Commission drafts a legislative proposal for an amendment of the CMD (proposals for new OELs in Annex III) and presents it to the College of Commissioners for adoption. The legislative proposal has to pass the ordinary legislative procedure through the Council and the European Parliament. Finally, the directive is published in the *Official Journal of the European Union*. Member States then transpose the text into their national legislation.

By the end of 2017, it is expected that limit values will be established (Wave I) for the following substances: chromium (VI) compounds, refractory ceramic fibres, respirable crystalline silica (RCS) dust, ethylene oxide, 1,2-epoxypropane, acrylamide, 2-nitropropane, o-toluidine, 1,3-butadiene, hydrazine and bromoethylene, and will be revised for hardwood dust and vinyl chloride monomer<sup>1</sup>. OELs have been proposed for the following substances (Wave II): trichloroethylene, 4,4'-methylenedianiline, epichlorohydrin (1-chloro-2,3-epoxypropane), ethylene dibromide (EDB), ethylene dichloride, complex polycyclic aromatic hydrocarbon (PAH) mixtures with benzo[a]pyrene as indicator and mineral oils as used in engine oils. The following are considered for setting OELs (Wave III): cadmium and its inorganic compounds, beryllium and inorganic beryllium compounds, arsenic acid and its salts, as well as inorganic arsenic compounds, formaldehyde, and 4,4'-methylene-bis(2-chloroaniline) (MOCA).

Christian Heidorn concluded his presentation with an outlook to future steps to implement the Commission Communication 'Safer and Healthier Work for All' by:

- continuing to work on subsequent amendments of the CMD;
- studying the possibility of including reprotoxic substances in the CMD;
- establishing further lists of indicative limit values in the CAD;
- developing a database on occupational exposure for some hazardous chemicals;
- supporting the Healthy Workplaces Campaign on dangerous substances;
- helping businesses to comply with OSH rules;
- developing practical guides for employers/inspectors;
- achieving a common understanding between OSH legislation and other EU legislation on chemicals, in particular REACH.

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<sup>1</sup> NB: The 1<sup>st</sup> amendment of the CMD has passed the legislative procedure and the new OELs have been published in the Official Journal of the European Union as '*Directive (EU) 2017/2398 of the European Parliament and of the Council of 12 December 2017 amending Directive 2004/37/EC on the protection of workers from the risks related to exposure to carcinogens or mutagens at work*', available in all EU languages at: <http://eur-lex.europa.eu/eli/dir/2017/2398/oj>

- **Questions and answers:**

**Q:** In one of your slides you mentioned SCOEL or RAC would be in charge of evaluating the priority chemicals. To my understanding, SCOEL is the scientific committee for occupational limit values. I do not understand the role of RAC.

**A:** This is an ongoing process that we don't want to discuss in detail in this seminar. SCOEL and RAC apply different methodologies which result in different opinions on OELs for some substances. The Commission has given a mandate to SCOEL and RAC for working together to establish a limit value for the aprotic solvent NMP. Unfortunately, they could not agree on a common value for NMP. There is another mandate for them to develop an overall working methodology, where they have made good progress. However, for capacity reasons, two substances for Wave III and three substances for the upcoming 4<sup>th</sup> amendment of the CMD have been given to RAC for evaluation. The process for establishing limit values under the CMD remains the same, in particular the involvement of social partners. There might be some further developments, for SCOEL and RAC to work closer together, maybe under a new umbrella. But this is in a very early stage of discussion.

### ***Protection against silica — European guidance for labour inspectors, Dr Christine Snaith, SLIC CHEMEX***

The European guidance for labour inspectors has emerged from the SLIC, which brings together the top occupational safety and health regulators from all the Member States. Ill-health and occupational disease deaths statistics show that deaths from cancer outweigh those from fatal injury accident. In Europe, for every work-related death by accident, at least 20 people die of work-related long-latency diseases. RCS contributes to these deaths, along with other dangerous substances.<sup>2</sup>

In 2014, the SLIC Plenary asked its CHEMEX working group to take forward a project designed to improve the confidence and ability of labour inspectors to tackle RCS risks and the associated long-latency health risk, and welding fumes. It is also very important to remember the life-debilitating effects of silica before people die. There are many people who live with the consequences of occupational diseases from chemical dust exposure for many years and suffer from serious health problems. In the UK, it is estimated that about 500 workers die every year from previous exposure to RCS dusts in the course of construction work. The next topic where guidance will be produced by CHEMEX will be welding fumes.

**Christine Snaith** presented the guidance document and its development by representatives from seven Member States: BE, BG, IE, IT, NL, SE and UK.

The guidance document has been developed to increase the confidence and ability of inspectors to address and reduce RCS risks in the construction sector. Where safety risks are not apparent, the inspectors do not always know how the working environment may pose serious risks to workers from exposure to RCS. Therefore, the objective of the guidance was to give clear guidance with many pictures that illustrate typical work situations inspectors may encounter. The guidance is divided into two parts.

The first part provides background information on RCS, health risks, the regulatory framework and control measures. Key information for inspectors is put in boxes; e.g. they are called to take action when they see a dust cloud ('Visible dust can be used as a general guide for improving dust suppression efforts. If you see visible dust being generated, emissions of RCS are probably too high').

Control measures are explained, and recommendations follow the hierarchy of controls prescribed in legislation. Examples are provided for elimination and substitution, engineering measures, administrative control measures, respiratory protection and health surveillance, welfare and housekeeping, as well as for training.

The second part includes 14 individual factsheets that cover work tasks involving the highest RCS risks at construction sites. The factsheets provide images/photographs on good and bad practices as a support for engaging in a dialogue with employers and employees at site and to help inspectors

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<sup>2</sup> Rushton, L., S. J. Hutchings, L. Fortunato et al.: Occupational cancer burden in Great Britain. Br. J. Can. 107:S3-S7 (2012)

illustrate the issues and demonstrate what should be done. The factsheets have sections with recommended controls for RCS dust. The possible actions are divided in three categories according to urgency and risk:

- Red — high health risks: consider immediate actions; stop work.
- Yellow — medium health risk: consider action.
- Green — low health risk: no actions required.

At the end of the guideline, links and references to useful resources are provided. Several of them provide very useful images/video clips, which may be useful for inspectors and can be shown to employers to convince them of the need to control RCS risks.

Finally, Christine Snaith gave information about a new resource linked to the guidance; SLIC produced inspector-training materials, which include a quiz about what you know about RCS and how to control it.

- **Questions and answers:**

**Q:** Did you have any reaction from the Member States to your guidance?

**A:** Yes, we launched the guidance a year ago and we had a very positive reception. The simple concept of a one-pager for a typical scenario was welcomed and we got very positive feedback from many MS. The opportunity to have it translated will improve the impact considerably. We believe at the end of the year we will have it translated.

### ***Substitution as a solution: good practices and experiences from the Netherlands, Corné Bulkman, MUOPO Inventive Consultancy***

In the Netherlands, between 2,500 and 5,000 workers die every year from work-related illnesses, tens of thousands of workers get illnesses from their job and a substantial proportion of those can be related to the exposure to dangerous chemicals. This is a good reason for a substitution policy for dangerous chemicals. **Corné Bulkman** invited the audience to look at the practical considerations and experiences from the Netherlands on how to substitute carcinogens and reprotoxic substances. He has been working for the MUOPO Inventive Consultancy, of which he is co-owner. MUOPO is an inventive consultancy in the field of OSH, offering innovative services aimed at improving working conditions. The aim of his presentation is to give the audience a better perspective on how to successfully replace dangerous chemicals and create a safer and healthier workplace. Corné Bulkman's basic statement was that the replacement of dangerous substances is driven by motivation. Motivations for substitutions can be found in legal, economic and social arguments.

Examples of successful substitution, unreasonable substitution and reasons for not implementing substitutes were presented. Positive examples of substitution mentioned were the mandatory removal of all asbestos in the Netherlands by 2024 and the replacement of ethanol as a disinfectant in the health care sector. A negative example of substitution was the replacement of isopropyl alcohol in a washstand (wash-installation) with ethanol. Economic feasibility was mentioned as a major reason for not replacing dangerous substances, but another could be requirements placed on the product by the client.

In this context, an awareness video<sup>3</sup> about transport safety was shown, designed to demonstrate how bad people are at noticing things that they are not consciously looking for. A detective investigating a crime goes around the room interviewing each suspect. After the detective names the killer, the scene is replayed, this time filmed from a camera that captures changes made by the film crew to the set-up during the interviews. This angle reveals that the 50-second scene contained 21 changes to the set-up (furniture, paintings and other). Transferred to the process of substitution, Corné Bulkman underlined that, if the focus is too much on substitution, there is a risk of losing the whole picture and new hazards may be introduced.

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<sup>3</sup> 'Whodunnit' <https://www.bme.nl/nieuws/asbestdaken-infographic-en>

Regarding the risk reduction model, he pointed out that the attitude of workers plays a big role in creating safe and healthy workplaces. The most difficult part regarding the introduction of substitution is to achieve a culture of accepting new ways of working. Change is always associated with resistance and must go through several phases. Known steps to successful change are denial — disbelief that change is necessary — saying goodbye to the old method — letting go of the old method — experimentation, dealing with new approaches — integration — new method becomes the norm.

Corné Bulkman concluded his presentation by stating that safety and health is supported by directives and legislation but that it thrives on motivation.

- **Questions and answers:**

**Q:** How does the Netherlands plan the removal of asbestos roofs?

**A:** The Netherlands decided to remove all asbestos by 2024. There are government-funded subsidies<sup>4</sup> available to help people clean their property of asbestos. Professional companies carry out an inventory, report online what needs to be done and draw up a plan. They physically remove asbestos, and perform a final safety inspection, invoice, and finally put in an application for subsidy.

### ***Diesel engine emissions at the workplace, Dr Christian Felten, BG Transport***

**Christian Felten** started his presentation with a short introduction to the statutory accident insurance for Transport (BG Verkehr). BG Verkehr was created in 1886 and diesel engines have been a topic of interest for the BG for more than 120 years. In his presentation, he put the focus on the German debates regarding the OELs for diesel engine emissions to highlight what has been done so far to combat diesel motor emissions (DME) at the source.

Diesel engines are used universally in the working environment in Europe. They are used in transportation (cars, trucks, trains, ships), on construction sites (machinery), in workshops, halls and storage areas (fork lift trucks), and in car-washing facilities. Diesel engines are also present in the waste management industry, in the mining industry, in tunnel construction and at airports (e.g. generators).

DMEs are a mixture of different substances. The main components are DME particulates, nitrogen monoxide and dioxide (NO/NO<sub>2</sub>), carbon monoxide and dioxide (CO/CO<sub>2</sub>) and sulphur dioxide (SO<sub>2</sub>). DME particles have been classified as carcinogenic, and more recently as category 1 (carcinogenic in humans, classification by the International Agency for Research on Cancer; IARC). However, diseases caused by DME are not recognised as occupational diseases. Although many workers use diesel engines at work, there is no systematic preventive occupational health examination that would help identify health problems.

Christian Felten appealed to enlarge the discussion about OELs for DME to the EU level. Germany has recently adopted<sup>5</sup> an occupational limit value (AGW) for DME particulates (AGW = 0.05 mg/m<sup>3</sup> based on an eight-hour average exposure). AGWs also exist for the other components and each component is considered separately<sup>6</sup>. Occupational exposure limits for diesel motor emissions exist and are implemented only in Austria, Germany and New Zealand.

Emission limits at the EU level exist for cars and trucks as well as for ships (Euro emission standard). They differ depending on the type of vehicle and, for construction machinery, also on their power. The discussion related to limit values in Germany is complicated by the fact that there are different limit values: workplace, environmental and indoor limit values.

The engine and exhaust gas purification technology in diesel engines has made rapid progress in recent years, which has significantly reduced emissions. The particles with carcinogenic effect have

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<sup>4</sup> <https://www.bme.nl/nieuws/asbestdaken-infographic-en>

<sup>5</sup> At the 60th meeting of the Committee for Hazardous Substances in Germany on 10 May 2017 it was decided to implement a German AGW of 0.05 mg/m<sup>3</sup> for DME particulates.

<sup>6</sup> AGWs exist in Germany for single components of DME: NO/NO<sub>2</sub>, AGW 0.5 ppm; CO/CO<sub>2</sub>, AGW 30/500 ppm; sulphur dioxide, AGW 1 ppm.

been drastically reduced in modern engines. However, this is accompanied by an increase in the emission of nitrogen oxides. A reduction of the particles in DME through oxidation increases nitrogen oxide, and the problem with this is that the limits for nitrogen oxides have just been lowered dramatically, also at the EU level. For example, the limit values for NO<sub>x</sub> emissions of trucks and buses have been reduced from 7,000 mg/kWh to 400 mg/kWh (Euro 2 to Euro 6 — European emission standard introduced in 1992 (Euro 1), current standard (Euro 6) introduced in 2014). The German workplace limit value (AGW) for NO<sub>2</sub> was reduced by a factor of 10 from 9.50 to 0.95 mg/m<sup>3</sup> in 2016, and that for NO from 30 to 2.5 mg/m<sup>3</sup>.

Modern diesel engines with diesel oxidation catalyst, diesel particulate filter and selective catalytic reduction can reach the AGW. However, many diesel engines at workplaces are more than 20 years old. That is why it is urgent to act. In Germany, the Technical Rule for Hazardous Substances (TRGS) related to DME (TRGS 554) is currently being updated to address the upgrade of diesel engines and incentives for upgrades, and include prevention measures for Euro 6 vehicles in closed working environments and for secondary exposure (e.g. workers working in road maintenance or at road control posts), and provisions on preventive medical check-ups.

The presentation concluded with an example of successful change: an electric-driven conveyor (excavator) in a hall for waste management.

#### ▪ **Conclusions:**

- The German TRGS 554 is a helpful guidance for employers, but it is necessary to update it.
- Particles in DME are manageable and exposures are declining.
- The reduction of NO and NO<sub>2</sub> is still a challenge.
- There is a need for transitional arrangements for the use of older diesel engines especially in closed and underground areas.
- Substitution is possible, but is still difficult; it has to be promoted especially in closed working environments, where exposures may be higher.

The presentation was followed by a lively discussion.

#### ▪ **Questions and answers:**

**Q:** Pollution limits for cars are defined for a specific temperature. Many vehicles, however, switch off the necessary temperature during emission testing. Do you think it is a real problem that technical limit values cannot be achieved in practice?

**A:** It might be that specific devices are used to reduce emissions during laboratory emissions testing. However, concerning the occupational limit values, it can be checked whether DME reductions are achieved. There are limit values (AGWs for particulates and for nitrogen oxides and they must be controlled at the workplace. Actually, at the moment, it is not possible to assume that compliance with limit values is achieved when modern vehicles are used. But this must be the future, so that the companies can be sure to comply with the limit value if they use state-of-the-art technology.

**Q:** The limit values you have in Germany apply irrespective of whether old or new diesel engines are used. Can you explain why? And do you see an added value of having a limit value as you have in Germany at EU level?

**A:** Yes, I would like to have a threshold limit at EU level, from the point of social security and to avoid cases of occupational diseases caused by DME. But the limit value of 0.5 mg/m<sup>3</sup> depends on the measurement method and is related to the weight of the particles. The gravimetric method is the easiest way to measure exposure, but the latest discussion is about methods of counting particles. In the future, for measurements, I would like to distinguish between the types of diesel engines. For the older ones, we should stick to the gravimetric method; for the newer ones, we should switch to counting particles.

**Q:** You mentioned the power generators at airports. Normal cars are classified into Euro classes (European emission standards), but the vehicles at airports are special vehicles, which are not covered by the Euro classes. Exhaust gas cleaning systems for these were extremely expensive

in the past. How are the contacts with producers of such diesel engines, and do they support users to comply with the limit value?

**A:** The BG Verkehr has contacts with these producers. We are in the process of change to reduce the emissions of diesel engines in cooperation with the producers, especially in view of the new AGW. The best prevention measure, however, if diesel engines will not be substituted, is to use engines that emit a minimum of particulates and nitrogen oxides.

**Q:** Exposure measurements are often not carried out in companies. It would be the task of the preventive services to promote and to carry out measurements.

**A:** You are right, but many of the companies using diesel engines are micro and small companies. It would be more appropriate to encourage them through incentives to purchase new and low-emission diesel engines than to urge them to carry out yearly measurements. With the help of TRGS 554, it is possible to estimate the exposure instead of measuring it. I agree that it is necessary to know for each workplace the level of exposure to DME, but it is not always appropriate for SMEs. For SMEs, it would be more feasible to purchase low-emission techniques.

With regard to the measurements, the new health-based AGW offers for the first time the possibility of assessing the exposure.

### ***The Austrian campaign on carcinogens, Charlotte Salomon, Austrian Central Labour Inspectorate, Austrian Ministry of Labour, Consumer Protection and Social Affairs***

Austria is one of the signatories of the roadmap on carcinogens. The prevention of work-related cancer is intensively discussed in Austria and it is also a topic of the national OSH strategy. **Charlotte Salomon** reported about the Austrian campaign on carcinogens. The reason for initiating the campaign was a general lack of information on the side of the authorities on the number of exposed workers, on the carcinogenic substances used at workplaces and on the levels of exposure to those substances. Companies were not aware of their legal requirements, the level and duration of exposure and possible prevention measures.

The Austrian labour inspectorate started an inspection campaign in companies that use carcinogens. The main focus is to raise awareness of risks from carcinogens and to provide information on how to substitute and eliminate, minimise the use of, and safely handle workplace carcinogens.

The pragmatic approach started with an analysis of information gathered through health surveillance to preselected companies. The campaign will be carried out in two waves. In the first wave, 300 companies were preselected based on the results from the health surveillance and will be inspected by the labour inspectorate. The second wave will be carried out in 2018 together with the statutory occupational accident insurance AUVA in 300 companies selected by the local labour inspectors. Following each wave, a control survey is done.

The expected outcome of the campaign is better worker protection from exposure to carcinogens through enhanced knowledge, better compliance, more data concerning the exposure to carcinogens, examples of good practice and awareness raising.

Charlotte Salomon concluded her presentation with an invitation to exchange experiences and information.

#### **▪ Questions and answers:**

**Q:** According to the Austrian legislation it is mandatory for companies to report about the first use of carcinogens at their workplaces. Why don't you use this source of information?

**A:** Unfortunately, the reporting does not function very well. There are not enough data.

**Q:** How is the campaign linked to the Austrian Presidency? Will any of the issues be addressed during the Presidency?

**A:** Austria plans two activities related to workplace carcinogens: one will be a conference on carcinogens and the reduction of exposure to workplace carcinogens. The second will be a more internal activity; the SLIC will meet in Vienna for a Thematic Day and discuss how inspectors deal with workplace carcinogens.

## Panel discussion 1 'Prevention at the workplace'.

Participants: the chairs, social partner representatives from the Advisory Committee on Safety and Health at Work (ACHS), working party chemicals – Martin Wieske, Enterprise Association Metals (Wirtschaftsvereinigung Metalle), Tony Musu, European Trade Union Institute (ETUI) – and the speakers – Christian Heidorn, Christine Snaith, Corné Bulkmans, Christian Felten and Charlotte Salomon.

**Kären Clayton** started the panel discussion by asking the whole panel what they think are the three key things that need to be pushed to implement prevention of exposure to carcinogens in enterprises, given the important emphasis placed on prevention through the hierarchy of control in the EU.

### Importance of assessing what is used

**Corné Bulkmans** was the first to answer the question. In his view, the first thing is to know which chemicals are carcinogens and where they are used at workplaces. Second, he emphasised the need for commitment of society. Finally, he mentioned that cooperation between the main actors was needed. The social partners and the legislators as well as big companies need to join their efforts to implement prevention of exposure to carcinogens in enterprises.

### Intervention at the design stage

**Christine Snaith** agreed that people and companies must know what they are dealing with in such a way that they sustain the right behaviours. Avoiding the use of carcinogens is crucial. She pointed out that it is necessary to get the design of the process that led to the exposure corrected. It is important to ask people to go back and think about the whole process that they are involved with. Focusing on silica, she said that there are alternatives. It is necessary to provide employers and workers with the insight and the understanding about why they need to prevent these exposures for themselves.

### The importance of legislation

**Christian Heidorn** underlined the importance of legislation in preventing exposure from carcinogens at workplaces. In Europe, quite advanced legislation exists. But legislation must be implemented and enforced, and therefore inspections are extremely important. The third issue he mentioned was the need to close information gaps about carcinogens at workplaces through better cooperation and exchange of data, e.g. between the REACH and OSH actors.

### Speeding up the process of OEL setting at the EU level

**Christian Felten** emphasised the importance of having more occupational limit values for carcinogens at the EU level, not only five. He expressed his wish that the process of establishing OELs at the EU level would be faster. Second, he pointed out that it is very important to have solutions to help micro and small enterprises and to give them the certainty to comply with legal requirements. His third point was that it is important to include the social partners in the process of setting legislation.

### Taking advantage of Member States' experiences

**Tony Musu** from ETUI underlined that legislation is key to improving prevention. The trade unions want more limit values for carcinogens and they have developed a list of 50 priority carcinogens, covering 80 % of the exposures, for which they would like to have OELs set under the CMD. He mentioned DME, pointing out that Germany has shown that it is feasible to set an OEL for this substance at EU level. The limit value that has recently been adopted in the first wave of OELs for crystalline silica still carries a high risk of cancer in his view and should be reduced. He appealed to have strict limit values, because the stricter the limit values, the more protective they are of cancer. Tony Musu recalled the need **to include the reprotoxic substances in the scope of the CMD**, as some Member States do. Lastly, he emphasised the importance of training for workers

and employers because they need to understand the information provided, including labels and safety data sheets.

### **Sharing experiences and providing guidance in accessible language**

**Martin Wieske** from the Enterprise Association for Metals put communication and interaction at the centre of his key points. Communication is crucial for all involved parties to agree about what the issues are. The basis of communication is the science behind it. A lot of information is available concerning the properties of substances, and data have been collected so that it is possible to determine not only what the risk is that is involved with the use of a substance, but also where to set the acceptable exposure limit for a substance. The second important point is to understand what the risk is and to be able to compare risk levels, including for carcinogens. The third point is to bring together all information and to communicate it to the workers and employers with the help of guidelines and support in accessible language. He informed the audience that a TRGS dealing with carcinogens was recently established for the metal sector in Germany. This TRGS contains new limit values for some metals such as cobalt and nickel compounds.

### **Background research on the most used substances**

**Charlotte Salomon** outlined the importance of basic research concerning the exposure–risk relationship. She welcomed the related intensive research efforts regarding occupational exposure limits in Germany. Because not all Member States have the same resources to carry out basic research, sharing information is important to ensure safer workplaces for all workers in the EU. The third key point she mentioned was the development of easy-to-understand guidelines for SMEs to address exposure from dangerous substances at workplaces.

#### **▪ Questions from the audience**

**Q:** Two questions addressed to Christian Heidorn: The procedure of preparing a proposal for an OEL at EU level is a complicated and a long process of about 3 years' duration. Could you imagine changing the process? To change from the ordinary legislative procedure to a procedure where the technical annexes are amended? How is the debate concerning the risk based-concept for carcinogens conducted at EU level?

**A:** This would mean changing to a comitology procedure like what is done for REACH. Under REACH it is in fact faster to adopt risk minimisation measures, but the legal basis for OSH legislation is in the domain of social policy, and other requirements apply (other legal basis in the Treaty). In addition, Member States don't want to change the role of the European Parliament and the European Council in this process. However, there are possibilities of speeding up the process by increasing the resources.

Regarding the second question, there is a discussion concerning the risk-based concept for carcinogens. The German and Dutch experiences should be taken into consideration in this discussion.

### **Discussion around the risk-based concept**

Tony Musu commented on the derivation of OELs for carcinogens at the EU level; there is indeed a problem at EU level, because the methodology does not define the criteria on which to base the level of the limits'. That is the reason why the German (traffic light model) and the Dutch risk-based systems are so interesting. Unfortunately, there is some resistance from some countries who favour the cost–benefit model, which takes into consideration socioeconomic factors. The trade union wants to push the risk-based models and he expressed his hope that it will be possible to convince all Member States. Martin Wieske agreed almost completely, but he explained that in Germany there is additional support (assistance) for enterprises in difficult areas of practical implementation. The TRGS support enterprises to comply with legislative requirements. It is necessary to draw a red line, i.e. set a maximum exposure limit, but companies need support and recommendations on prevention measures that help them go below the limit. Socio-economic factors also play a role in the German model, as do considerations on technical feasibility.

### **Low levels of protection among precarious workers**

A comment from the audience was that the discussion concerning OELs missed out on precarious working conditions with low levels of OSH and potentially high and uncontrolled exposures. There

was little knowledge regarding the exposure levels in these potentially 'dirty' jobs and, on the other hand, little knowledge and training among workers and limited access to information that would normally be available. Awareness raising is very important among all groups, including policy-makers, on this issue.

Martin Wieske replied that this is a problem that must be tackled. It is very difficult to reach this target group and he proposed to look at the UK, where simple tools to address vulnerable groups with reduced literacy have been developed.

### **Strive for continuous improvement and transparency**

Christian Felten stated that good practice examples should continue to be promoted at EU level and they should be shared to support micro and small enterprises in the EU. Regarding the risk-based system he said that he supports this system, but that, in his opinion, the system should be a living model. It should be possible to reflect and think about what tolerable concentrations are. Thresholds should be regularly discussed and reduced.

Astrid Smola from the Federal Ministry of Labour and Social Affairs of Germany mentioned that the tolerable concentration is a statistical value. She emphasised that it is necessary to have comparable values in terms of the risk level linked to the exposure level. Discussion about the level of the values is possible, but all substances should be assessed in the same way. They need to provide the same basic level of protection. For dangerous substances, Germany has a health-based system, and for carcinogens a risk-based system. Standardised criteria are therefore needed to derive limit values.

### **Simple guidance for enterprises is needed**

Christine Snaith agreed that limit values have a place within the overall approach to preventing exposure to hazardous substances, carcinogens and reprotoxic substances included, but really important are the risk management approaches to eliminate the exposures. From the labour inspectors' perspective, she said, they are looking at reducing exposure through practical measures and correct behaviours.

## **Session 2**

### ***Welcome and introduction to the seminar part 2***

Introduction, Kären Clayton (SLIC CHEMEX), Michael Au (LASI)

Michael Au from LASI welcomed the participants of the afternoon session. Kären Clayton from SLIC CHEMEX introduced the speakers of the second part of the seminar.

### **Speeches**

#### ***The new hazardous substances ordinance as an instrument for the prevention of cancer, Dr Philipp Bayer, German Federal Ministry of Labour and Social Affairs (BMAS)***

**Philipp Bayer**, a chemist working for the Federal Ministry of Labour and Social Affairs of Germany, gave a talk on the German Directive on Hazardous Substances as a means to prevent cancer. He therefore introduced the European Directive 2004/37/EG and the recently proposed amendments of the directive, which aim to further tighten assessment standards, include more hazardous substances in Annex 3 and amend Annex 1, the list of substances, preparations and processes. As part of the European legislation, this directive is the basis for the German Ordinance on Hazardous Substances, which contains valuable regulations to prevent cancer. One of these rules is the mandatory use of closed systems, a term on which Philipp Bayer further elaborated. He then focused on the obligation to keep registers for exposure, codified, for example, in the German TRGS concerning the risk-related concept of measures for activities involving carcinogenic

hazardous substances named 'TRGS 910'.<sup>7</sup> This technical rule no longer contains assessment standards translated into explicit limit values, but instead contains standards translated into so-called risk areas.

The technical rule distinguishes three risk areas: low, medium and high risk. These risk areas determine the likelihood for substances to cause cancer based on average exposure cycles (8 hours per day over 40 years of work).

- The area of **low risk** includes the area up to the acceptable risk. In this area, the need to carry out additional measures is low. The risk is considered low if the exposure to a specific substance causes cancer in fewer than 4 in 10,000 cases (the tolerance threshold will be decreased to 4 in 100,000 from 2018 on).
- The **medium risk** area covers the area between the acceptable and the tolerable risk. In this area, the need for additional measures increases considerably as the respective concentration approaches the tolerable concentration.
- A risk is considered **high** if this likelihood increases to 4 in 1,000 cases. Above this threshold a risk is no longer tolerated and must be addressed by specific measures such as substitution, technical and organisational measures as well as personal protective equipment (PPE).

He explained the link between socio-economic factors and the need of risk reduction measures in relation to the three areas. In the green area the need for reduction measures is low and the socio-economic factors are high. In the red area it is reversed.

The aim of the risk concept is to ensure that exposures lie below the acceptable concentration. According to this concept, the employer must prioritise the various measures to be taken. Special measures in the event of exposure to carcinogenic hazardous substances depending on the respective risk area exist, which Philipp Bayer also briefly introduced as examples. They are divided into five groups:

1. substitution;
2. technical measures;
3. organisational measures;
4. respiratory protection;
5. administrative measures at the company.

Finally, he introduced a new technical rule dealing with protection measures related to activities with carcinogenic metals and their compounds (TRGS 561). As an example, he mentioned prevention measures for chrome plating (e.g. rim exhaust ventilation and closed systems).

### Importance of evidence-based prevention

The talk was followed by a short discussion with the audience in which two main questions emerged.

#### ▪ Questions and answers

The first question focused on TRGS 561.

**Q:** Were the prevention measures validated through measurements? Are the proposed prevention measures evidence based?

**A:** Before the prevention measures became part of the technical rule, the ministry revised research data investigating the outcome of the applied measures. Marin Wieske added that, especially for electroplating, it was determined in a lot of detail beforehand how effective specific measures are, whereas for other carcinogenic exposures it was harder to predict the outcome.

The second question focused on the risk based-concept, which refers to a 40-year working life.

**Q:** Will later retirement age and therefore potentially longer exposure duration have an influence on the underlying concepts?

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<sup>7</sup> The English version of TRGS 910 is available at [https://www.baua.de/EN/Service/Legislative-texts-and-technical-rules/Rules/TRGS/pdf/TRGS-910.pdf?\\_\\_blob=publicationFile&v=2](https://www.baua.de/EN/Service/Legislative-texts-and-technical-rules/Rules/TRGS/pdf/TRGS-910.pdf?__blob=publicationFile&v=2)

**A:** Philipp Bayer replied that this is a valuable hint for the future although these issues were not considered when the current regulations were designed'.

### ***Fighting cancer at the workplace — the focus of OSH, Silvia Lucas, Ministry of Labour, Social Affairs, Health, Women and the Family of Thuringia***

**Silvia Lucas**, from the Thuringian Ministry of Labour, Social Welfare, Health, Women and the Family, reported on a project called 'Fighting cancer at the workplace'. The project aims to collate data on the current epidemiology of work-related cancer in the three German federal states of Hesse, Baden-Württemberg and Thuringia. Other aims of the project (key actions) are to implement the risk-based concept for the use of carcinogens, to contribute to risk awareness and to establish coordinated efforts to push for substitution and minimise hazardous exposures if substitution of hazardous substances is not possible.

The prevention of occupational cancer will probably be one of the three strategic priorities addressed by the German national OSH strategy (GDA) from 2019 onwards. The project will contribute to this goal.

Currently, three German federal states are participating in the key actions, which will cover as many different companies, tasks and carcinogenic substances as possible and are not supposed to be limited in time.

Jointly developed checklists helped to assess the awareness about carcinogens in companies. Six main indicators were assessed:

1. Has a risk assessment been done?
2. Has the possibility of substitution been checked?
3. Have the occupational exposure limits been met?
4. Are the prevention measures adequate?
5. Does an exposure register exist?
6. Is health surveillance of the workers carried out regularly?

Silvia Lucas went on to present preliminary results of the project. So far, 559 establishments have been assessed regarding exposure to wood dust, benzene, trichloroethylene, respirable crystalline silica and other carcinogenic substances. The project is still at an early stage and the range of carcinogens will be extended to include DME or carcinogenic metals. The inspection campaign will also be extended to more federal states and become by far the largest joint project on hazardous substances in the work environment among the German federal states.

Silvia Lucas presented specific results for companies working with silica and benzene. While, for companies working with silica, fairly good results were achieved for adequate prevention measures, fewer than one-third of the companies handling benzene reported having taken such measures. In general, an alarming picture emerged. Even though carcinogenic substances were reported to be widespread, the overall results revealed major deficits in OSH: fewer than 50 % of the companies had done a risk assessment, checked substitution possibilities, kept a register of exposure or set up health surveillance of the workers.

#### **▪ Questions and answers**

The following discussion was based on three questions from the audience.

**Q:** How were the checklists set up and which discussions have taken place before the lists were compiled?

**A:** Because of limited staffing, the checklists had to be kept as simple as possible in order to make them usable for all inspectors, including those not familiar with hazardous substances. Silvia Lucas further pointed out that the checklists are not considered to be exhaustive and are thus updated regularly. However, as all three participating federal states used slightly different versions of the checklists, it may be difficult to compare the results. It was further added that the commonly used survey methodology of the joint GDA was considered to be too complex for the purposes of this

project. The project aimed to increase awareness on a broad scale and not just for staff specialised in hazardous substances. The checklist points are concise and clarify the key issues of the problem. However, workplace risk assessment is always the basis of the checklist.

**Q:** Were the assessment standards based on practical experiences?

**A:** 'Assessment standard' is a generic term. The Committee on Hazardous Substances (AGS) has adopted a resolution for the application of these assessment standards, which has been published by the BMAS<sup>8</sup>. Accordingly, these assessment criteria must be specified for every substance in substance-specific TRGS and be submitted together with a catalogue of specific protective measures. Substance-specific assessment standards only exist for three substances: nanoscale dusts, silicate dusts and chromium (VI) compounds.

**Q:** Why do the results of companies using silica and benzene show such big differences?

**A:** An earlier project was already aimed specifically at the glass and ceramic industry, which probably contributed to higher risk awareness about hazardous substances in the industry and consequently regarding exposure to silica. The technical rule related to handling of silica might also have contributed to better awareness, whereas companies handling benzene, such as car repair shops, had not been specifically targeted by rules or campaigns. Another participant added that the glass and ceramic industry also has more established work councils, so better participation of workers than other industries, and research shows that companies with work councils usually have better OSH outcomes than companies without such councils.

### ***Asbestos, Helen Donnelly, Health and Safety Executive***

The UK's Health and Safety Executive (HSE) has run several campaigns to raise awareness of the risks of asbestos. The most recent campaign very ambitiously set out not only to inform people, but to achieve a change in their behaviour.

The campaign was directed at tradespeople (sole traders and micro businesses). Campaign research shows the target audience will only do what they consider to be a 'reasonable ask' and many continue to work on materials containing asbestos despite being told of the risks. Therefore, the campaign focused on changing behaviour. HSE concentrated efforts on trying to connect with tradespeople, raise their awareness and encourage good behaviours, while also seeking compliance with legal requirements. **Helen Donnelly** presented the development of a digital tool (WebApp) designed to assist in identifying safe and correct procedures for asbestos work. The aim of the web app is to help tradesmen to correctly identify and handle asbestos materials in their everyday work. She reported the challenges in developing the asbestos app. Research showed that the target group thinks that it will not be affected by asbestos, because they believe that asbestos is an old problem and not a risk today, and that asbestos is not present in their workplaces. The target audience will not search websites for information or pay for guidance and training. But they will use a free digital tool providing simple steps to identify asbestos risks and support them to work safely and professionally. The ideal app:

- is free of charge;
- is specific to asbestos rather than focused on general safety and health;
- is a quick and simple reference point for asbestos risks;
- includes practical how-to information;
- provides pictures of common materials;
- has a search function by material and task;
- links to other information.

The app was developed by an agile development process: test — learn — improve — test again. The user needs were evaluated before the full structure and design was built:

- In the discovery stage, a simple prototype was created.
- In the testing phase, many people were asked simple questions.
- The content was written in simple language.

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<sup>8</sup> <https://www.baua.de/DE/Aufgaben/Geschaeftsfuehrung-von-Ausschuessen/AGS/Beurteilungsmasstaebe.html>

- Before going live, a testing phase and an acceptance test were carried out.

Helen Donnelly presented the design and demonstrated a typical journey of the web app. The web app provides guidance for specific, small non-licensed tasks and pictures of typical situations where asbestos may appear. It alerts users, in case of possible asbestos exposure, to search for a licensed asbestos contractor and provides contact data.

The web app was accompanied by the distribution (via a trade counter partner organisation) of a free asbestos safety pack, so-called 'asbestos safety kit', including the following components:

- soft pack outer with campaign messaging;
- set of durable reference cards (10 x double-sided individual cards bound with single corner ring);
- free pair of Type 5 disposable overalls with sticker on packaging containing wear and disposal instructions and other relevant messaging.

Promotional activities also took place via website adverts, blog posts and social media channels, newsletters and campaigns.

- **Conclusions**

The key lessons were:

- It is very important to get an insight into the audience requirements.
- Testing and learning with the audience is key.
- Technical requirements have to be sorted out early (hosting, security, maintenance, future development, etc.).
- Tailored steps and outcomes for each journey are needed.
- Clear choices for the decision tree are important — you have to know what the answer is.
- Resist temptation to include all details.
- Consider how people find the app — promotion and search engine optimisation.

- **Question and answers:**

**Q:** In Germany it is a problem to know exactly which product could potentially contain asbestos. Many products such as paints or wallcoverings with low but relevant asbestos content have emerged. How did you get this kind of information to put it in your app, so that the result is accurate for the tradesmen?

**A:** We give them a picture of the building to show where asbestos could be present. In our guidance we have a picture of a house and we use that as a tool for people to click on to find images and information where asbestos might lie. The information is based on intelligence from inspections and from research we carried out. In the UK we have a different approach to the management of asbestos in buildings: We have a legislative requirement for all commercial building owners to carry out a survey and to be able to identify for themselves where there is asbestos material and to have plans in place to manage the asbestos. The information must be made available for contractors to train and inform their workers where there is asbestos.

**Q:** We have in Germany the discussion that asbestos work has to be done by licensed contractors, like in the UK, but, as the workers do not always know if there is asbestos, they should be able to work in a dust-free manner. How do you ensure that workers work safely if they don't know if asbestos is present?

**A:** We have guidance on a range of lower risk tasks with specific control measures identified for where asbestos might be present. If they follow the guidance, they can continue to work. For higher risk work, we have published information on how to access licensed contractors

**Q:** Two groups of workers that may be harmed by asbestos work: young workers — it seems that young workers are not any more aware on risks from asbestos — and subcontractors from foreign countries. Did you tackle this in your campaign?

**A:** Within one of our previous campaigns we addressed young workers with comic strips and specific training packages. For foreign workers, we have to translate the information and to work with pictures, this is what we consider for guidance materials on other health and safety risks also.

### ***Workplace carcinogens — experiences of OSH in NRW, Dr Volker Winter, State Institute for Work Design NRW, Düsseldorf***

Volker Winter, now head of the Federal Department for Work Design of NRW and prior to that at the Ministry of Work, Health and Social Affairs of NRW, held a talk on the ministry project named 'Risk-based surveillance of workplace carcinogens'. Using the example of the recycling industry, he presented the systematic approach to the selection of enterprises for control and inspection of the occupational safety administration of NRW. The recycling industry was selected because the industry has a broad range of carcinogenic risks.

After defining what is meant by recycling industry, Volker Winter explained the systematic procedures in which data sources were used to screen information about the recycling companies, their size, the recycled substances and their amounts and the recycling technologies used. The database mainly used to select and identify the companies is called ASYS, which is a database containing information on waste cycles and establishments that receive materials in order to recycle them. This database was checked for establishments handling lead, mercury, wood, ceramics, asbestos and chromium. Establishments that processed certain amounts of such carcinogens were selected for inspection.

The inspections aimed to check compliance with OSH-related regulations, correct handling of hazardous substances and other aspects of occupational health. They used instruments such as a basic module called 'systematic control' and industry-specific modules on hazardous substances and occupational health. Thus, 100 out of 264 establishments were selected to be inspected without prior notice.

Overall, the inspections with the help of the risk-orientated module proved to be very useful and necessary: 83 % of the enterprises did not handle the substances properly, although they were already subject to controls under waste and environmental regulations. The use of alternative data sources proved very useful to identify even those establishments that are not usually tracked down through common inspection and selection procedures.

The discussion focused on what the project is aiming at in the future and Volker Winter replied that the closed-loop recycling regulation also identifies other stakeholders involved in the recycling process that could be focused on and be controlled for compliance.

### **Panel discussion 2 'National strategies to tackle work-related cancer'**

Annika Wörsdörfer, German Trade Union Confederation (DGB), Dr Martin Wieske, Enterprise Association Metals, Dr Astrid Smola, BMAS, Dr Rüdiger Pipke, German Federal Institute for Occupational Safety and Health (BAuA), Kären Clayton, and the speakers: Silvia Lucas, Dr Volker Winter.

The second panel discussion focused on national strategies to tackle work-related cancer. **Elke Schneider** addressed her first question to **Kären Clayton** asking about the priorities of the UK's national strategy on carcinogens. Kären Clayton explained that there is a cancer strategy in Great Britain, which also covers cancer caused by work. HSE has launched, together with industry and social partners, a strategy called 'Help GB work well' with six strategic topics. One of the specific health topics within the strategic topic on 'tackling work-related ill health' is related to occupational cancers. HSE has funded a lot of current research looking at the cancer burden in Great Britain, focusing on asbestos, silica, welding fumes, other carcinogens, and industries such as manufacturing, construction and woodworking. A health priority plan has recently been launched by HSE aimed at tackling three priority issues, one of them being respiratory health, with the Workplace Healthy Lungs Summit in November 2017.

She also mentioned that HSE was reaching out to all audiences with innovative approaches, such as the 'LOCHER'<sup>9</sup> (Learning Occupational Health by Experiencing Risks) project, for students to learn about occupational health risks through experience using novel training techniques and channels, such as YouTube videos, songs and poems — whatever creative ways students want to use to learn and share their learning with each other.

Michael Au continued with the panel discussion. **Annika Wörsdörfer** was asked what Germany could learn from Great Britain's 'work well strategy'. She replied that Germany still has a long road ahead, as the joint GDA is only in its second period. For the third GDA period, the trade unions and the German *Länder* emphasised that a strategic priority on work-related carcinogens is needed. Germany needs a discussion on how to tackle the gap between the detailed and useful regulations and the practical implementation in companies. There is also a need for more inspections and for more occupational health physicians, which contrasts with the fact that about 30 % of the resources for inspection were cut in the last few years. Employers need to be sensitised about work-related cancer and supported in tackling the problem. It is crucial to guide workers and employers to create a healthy workplace. In this context, she praised the asbestos app presented by Helen Donnelly as a very useful tool to sensitise workers and employers to the risks of asbestos. The level of OSH is also higher in companies with workers representatives. One of the main instruments for the trade unions is the workplace risk assessment. Furthermore, since last year, the German Statutory Accident Insurance provides a central database for registration of workers exposed to carcinogens (ZED<sup>10</sup>). Annika Wörsdörfer underlined that it is necessary to promote this database.

**Martin Wieske** was asked if campaigns on asbestos similar to the one in Great Britain would reach the companies in Germany. He replied that he is very impressed by the pragmatic, but very detailed, factsheets developed for the asbestos campaign and he proposed to translate the asbestos app into German. But he pointed out that there also is a problem of resources at industry level to run such a campaign. There is a need for resources to implement the GDA and there is still an intensive discussion about carcinogens and exposure limits in Germany. He conceded that it is time to change and to use new media and ways of communication to reach employers and workers. The TRGS are often too complicated and there is a need for easy-to-read versions for the workplace level.

Michael Au pointed out that the priority actions to fight against cancer presented by **Silvia Lucas** were a rather traditional approach of the inspectorates and he asked if she could imagine that her colleagues would conduct a campaign like the one in Great Britain. She replied that, in her opinion, it would be possible if the campaign was well organised and had political support. She remarked that the classical OSH topics had been replaced by new topics such as psychosocial issues and new forms of work (she referred to the German discussions on 'Work4.0'<sup>11</sup>). In her opinion, the classical OSH approach is still important. She very much appreciated that carcinogens will be a priority in the next GDA period.

**Astrid Smola** said that there are many efforts made regarding carcinogens in Germany. Carcinogens are currently the focus of legislation at national and EU levels, but the problem is to transfer the regulations into practice. Campaigns could be helpful and in her opinion the GDA will push the issue of occupational exposure to carcinogens considerably forward. The tools presented by the partners from Great Britain are low-barrier tools and Germany can learn a lot from this experience, especially for the national asbestos dialogue with the aim of sensitising, informing, and initiating measures and new low-dust techniques, as well as developing solutions for further regulations,. She pointed out that the discussions in the UK and in Germany are very similar. In Germany, a dialogue on workplace dust exposure started 2 years ago. Several actions have been carried out, and tools and machinery with lower dust emissions have been developed. Asbestos has been a topic for many years in Germany. However, the focus was on visible asbestos, for

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<sup>9</sup> <http://www.safetygroupsuk.org.uk/campaigns/locher/>

<sup>10</sup> Datenbank zur zentralen Erfassung gegenüber krebserzeugenden Stoffen exponierter Beschäftigter – Zentrale Expositionsdatenbank (ZED), available at: [http://www.dguv.de/ifa/gestis/zentrale-expositionsdatenbank-\(zed\)/index.jsp](http://www.dguv.de/ifa/gestis/zentrale-expositionsdatenbank-(zed)/index.jsp)

<sup>11</sup> The German Minister of Labour, Andrea Nahles, presented findings and proposals in a White Paper about the future of work to the public in November 2016. The Ministry announced a framework for a partly public, partly technical dialogue about the future of work, including the social conditions and rules of the future working society based on the model of 'good work'. The future of work in the context of digitisation. 'Work4.0' is a necessary extension of the debate about the digitalisation of the economy, generally referred to as 'Industry4.0'. This topic was discussed in several sessions of the A+A congress.

example built in in roofs, and not on hidden asbestos. Therefore, a national asbestos dialogue started recently, and she underlined that she learned a lot from the Great Britain asbestos campaign and its tools. She agreed with Martin Wieske that it would be a good idea to translate the app into German.

Michael Au mentioned that UK approaches had been adapted before, one example being the 'Easy-to-use workplace control scheme for hazardous substances' (EMKG)<sup>12</sup>, a risk assessment tool developed by the BAuA that follows COSHH Essentials<sup>13</sup> (Control of Substances Hazardous to Health) principles. **Rüdiger Pipke** was asked if it would be feasible to learn from the UK approach for carcinogens at workplaces and adapt it to German conditions. Rüdiger Pipke replied that Germans often have the tendency to express things in a complicated way which in many cases is not adequate for SME. This was the reason why they were inspired by the control banding approach from the UK to develop the EMKG. It is planned to complement it with additional control guidance sheets of about two pages with diagrams where appropriate. He referred to a new issue concerning nanomaterials and the so-called advanced materials: exposure to different types of fibres that encompasses the whole range from harmless to carcinogenic. Those who develop these materials, often in nanoscale, are no longer chemists but engineers and material scientists. They may be organised in start-ups, which are non-traditional organisational structures that escape the normal communication channels for occupational safety and control routines of labour inspections. They often are not aware of working with hazardous substances and it is important to reach this target group, by whatever means are useful, whether networking, campaigns or apps. The aim is to raise awareness and to support them in the development of safe materials and products. It is also important to look at the life cycle of these advanced materials to assess all possible risks emerging from these technologies, from fabrication through processing and use to waste.

Michael Au picked up on a point mentioned by Annika Wörsdörfer: OSH has a higher priority in companies where inspections are carried out and where there are worker representatives. He asked **Volker Winter** if he could confirm the same experiences in the recycling industry. Volker Winter replied that the recycling industry benefits from the lifecycle approach and he could confirm that the work environment in companies where OSH stakeholders are active and carry out their duties is much better. It is important to involve as many stakeholders and branches as possible in the discussion on workplace carcinogens and to push for more, and better coverage of, occupational health physicians.

Kären Clayton was pleased with the positive feedback on the UK asbestos campaign and approach. She mentioned that there are open-source materials on the HSE website and gave examples of resources published by HSE, including on nanomaterials. She said that there is certainly a possibility of talking about their use with the colleagues from Germany.

Finally, each participant from the panel discussion was asked to give a last statement concerning workplace carcinogens.

Annika Wörsdörfer would like to see a significant increase in completed risk assessments tackling workplace carcinogens in 2020 after the completion of the third GDA period and, moreover, a significant reduction in work-related cancer. Martin Wieske expressed his satisfaction that things are moving at the EU level and he underlined that it would be important to ensure that the scientific competence we had with SCOEL will remain unchanged, in case of a change regarding the scientific evaluation of limit values. He invited the audience to use the new TRGS for metals and to send their feedback on practical issues. Sylvia Lucas called for cooperation to better inform workers and employers in order to prevent exposure to workplace carcinogens. Kären Clayton was struck by how much Germany and Great Britain have in common in terms of workplace carcinogens and the consensus to focus on awareness raising and change of behaviour especially in small enterprises. They faced similar challenges, for example in terms of priority substances, such as silica and asbestos. Astrid Smola expressed the wish that all actions discussed in the seminar will be implemented, especially those referring to asbestos. Kären Clayton expressed the wish that all

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<sup>12</sup> More information available at [https://www.baua.de/EN/Topics/Work-design/Hazardous-substances/EMKG/Easy-to-use-workplace-control-scheme-EMKG\\_node.html](https://www.baua.de/EN/Topics/Work-design/Hazardous-substances/EMKG/Easy-to-use-workplace-control-scheme-EMKG_node.html)

<sup>13</sup> COSHH Essentials is a simplified risk assessment tool developed by the HSE. It sets out basic advice on what to do to control exposure to hazardous substances in the workplace. It takes the form of straightforward advice in 'factsheets' called 'control guidance sheets'. There are two types of sheets, industry-specific 'direct advice sheets' and 'generic control guidance sheets'. For more information, see <http://www.hse.gov.uk/coshh/essentials/>

actions and tools presented in this seminar will reach the companies (practice). Rüdiger Pipke agreed that it would be important to reach the target group at their workplaces and to focus on micro and small companies. Volker Winter wished that the dialogue would never stop and that good practices would be exchanged continuously.

## Conclusion, Dr Elke Schneider, EU-OSHA

**Elke Schneider** concluded the seminar by expressing her particular pleasure about the seminar, the presentations and the discussions. Elke Schneider briefly summarised the seminar and pointed out the common goals, common priorities and the consensus on many topics related to workplace carcinogens among the speakers and the EU Member States. She welcomed the exchange of practical examples, tools and instruments to manage dangerous substances at the workplace during the seminar and pointed out that it had been an exchange of not only problems, but also solutions to help especially small and medium-sized companies in the EU. She mentioned different views on some issues such as the risk-based concept as well as different approaches in different EU countries regarding the priorities of prevention strategies and said that the discussion on this topic will go on at the EU level. She expressed her wish to find more partners for the roadmap on carcinogens and announced the next EU-OSHA Healthy Workplace Campaign on dangerous substances, which will be launched in April 2018.

Finally, she thanked the speakers for their presentations and their contribution, BASI for the organisation and the translators for their work.