



III SIMPOSIO DE HIGIENE INDUSTRIAL

Septiembre 28 y 29 de octubre de 2024



Instituto Cántabro
DE SEGURIDAD Y SALUD EN EL TRABAJO



Instituto Nacional de
Seguridad y Salud en el Trabajo



Asociación Española
de Higiene Industrial



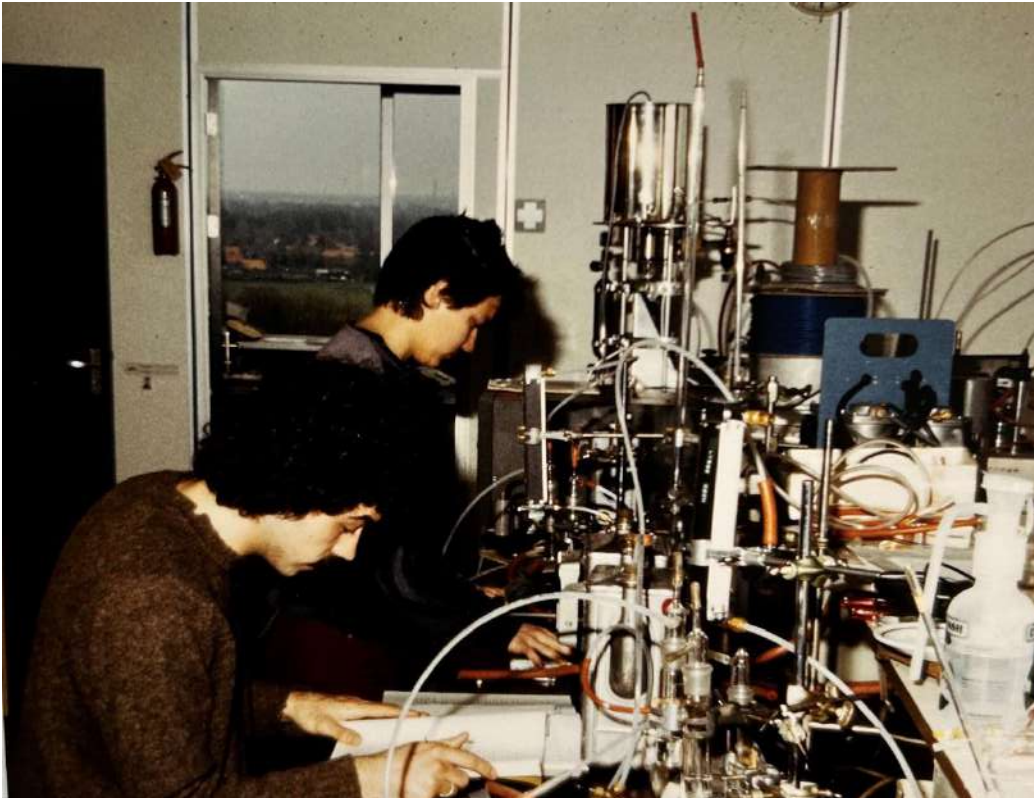
cátedra
prevención
cantabria

CARCINOGENIC, MUTAGENIC AND REPROTOXIC AGENTS

COOPERATION WITHIN EUROPE IN ENFORCING WORK WITH DANGEROUS SUBSTANCES, ESPECIALLY CMR

MONIQUE WAEGEMAEKERS, SLIC CHEMEX / NETHERLANDS LABOUR AUTHORITY

SLIC = Senior Labour Inspector's Committee

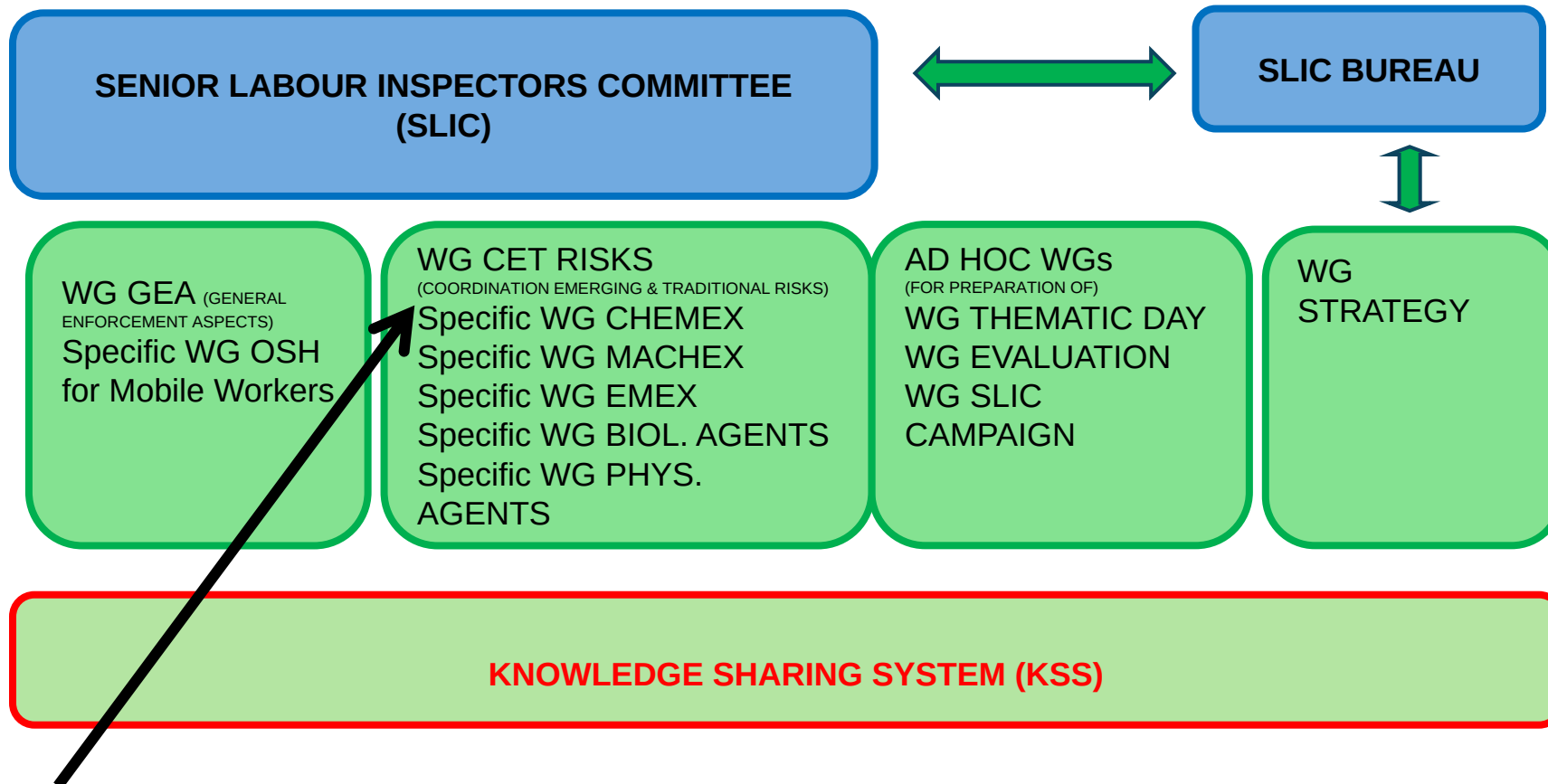


SLIC: Senior Labour Inspector's Committee

- Established by the Commission Decision 12 July 1995
- Gives its opinion on all matters relating to the Member States (MS) enforcement of EU legislation on Occupational Safety and Health (OSH)
- Two Plenaries per year in the MS holding the EU Presidency
- Feedback on functioning from MS
- SLIC campaigns:
 - Lighten the load (2021)
 - Accidents at work (2023)
 - Asbestos (2025)

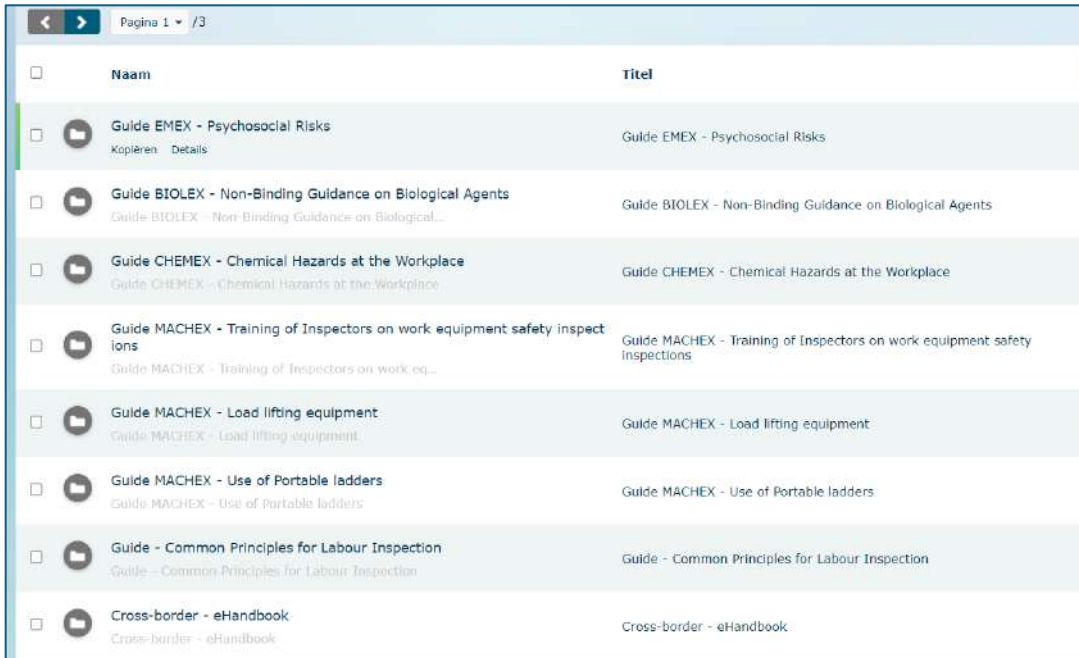


SLIC STRUCTURE



Guidances

Screenshot of the summary page



Naam	Titel
☐  Guide EMEX - Psychosocial Risks Kopieren Details	Guide EMEX - Psychosocial Risks
☐  Guide BIOLEX - Non-Binding Guidance on Biological Agents Guide BIOLEX - Non-Binding Guidance on Biological...	Guide BIOLEX - Non-Binding Guidance on Biological Agents
☐  Guide CHEMEX - Chemical Hazards at the Workplace Guide CHEMEX - Chemical Hazards at the Workplace	Guide CHEMEX - Chemical Hazards at the Workplace
☐  Guide MACHEX - Training of Inspectors on work equipment safety inspections Guide MACHEX - Training of Inspectors on work eq...	Guide MACHEX - Training of Inspectors on work equipment safety inspections
☐  Guide MACHEX - Load lifting equipment Guide MACHEX - Load lifting equipment	Guide MACHEX - Load lifting equipment
☐  Guide MACHEX - Use of Portable ladders Guide MACHEX - Use of Portable ladders	Guide MACHEX - Use of Portable ladders
☐  Guide - Common Principles for Labour Inspection Guide - Common Principles for Labour Inspection	Guide - Common Principles for Labour Inspection
☐  Cross-border - eHandbook Cross-border - eHandbook	Cross-border - eHandbook

Link to the guidance produced by the working groups: [SLIC \(Committee of Senior Labour Inspectors\) - PUBLIC GROUP - Biblioteca \(europa.eu\)](#)

BIOLEX: Guidance on Biological Agents
CHEMEX: Guidance on Chemical Agents

SLIC Working group Chemex

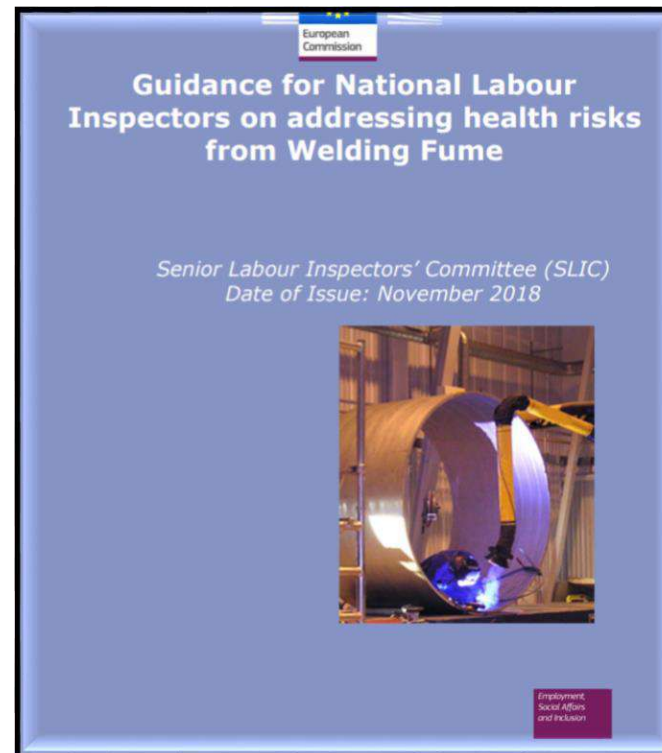
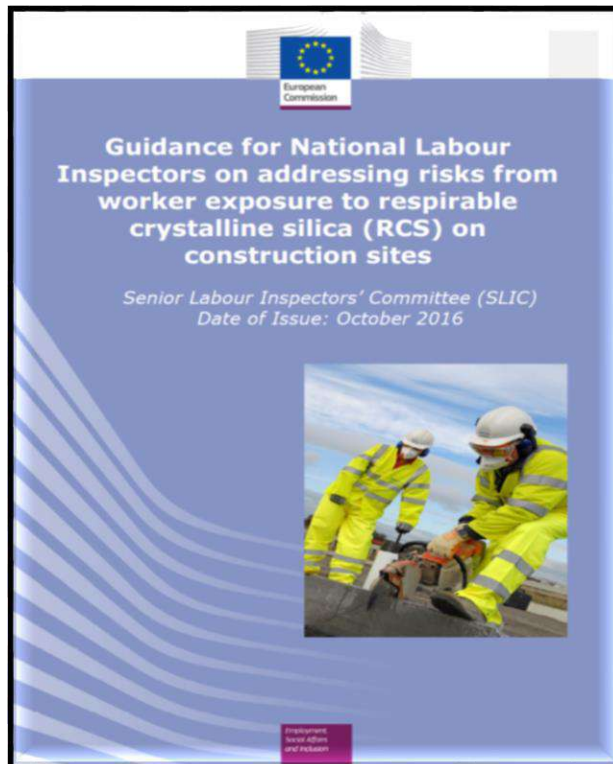
Maingroup and focusgroup (7 members each)

Tasks:

- Support national labour inspectorates in the enforcement of legislation on chemical agents by:
 - Exchanging good practices
 - Developing guidance documents
 - Ensure Coordination and cooperation with other relevant enforcement bodies



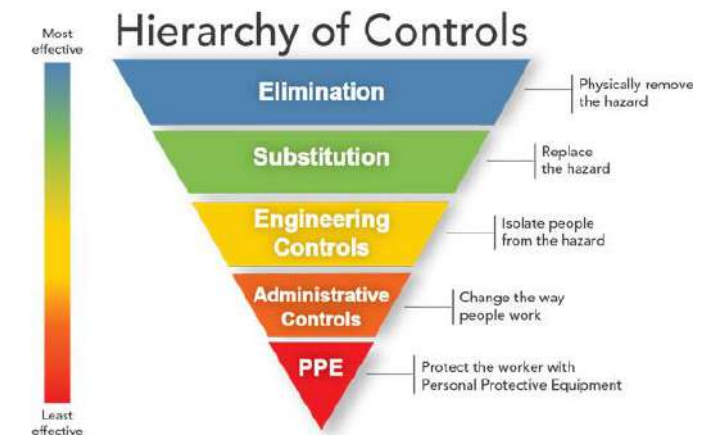
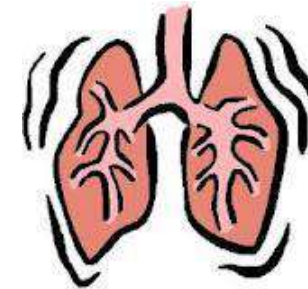
SLIC GUIDANCES



Welding fume guidance, part 1: information



- What is welding
- Health effects
- Fume controls
- Exposure assessment &
- Key questions
- Health surveillance



[SLIC \(Committee of Senior Labour Inspectors\) - PUBLIC GROUP - Library \(europa.eu\)](https://eur-lex.europa.eu/legal-content/ES/TXT/?uri=CELEX%3A32018H1623%20EN%2001)

Welding fume guidance, part 2: fact sheets

- General information per process
- Possible control measures
- Possible actions by the labour inspector
- Source and maintenance measures
- Clarifying pictures

TS 3 Gas metal arc welding (GMAW) – also known as Metal Inert Gas (MIG) & Metal Active Gas (MAG) welding – mild/carbon steels Page 1 of 2	
General comment	GMAW/MAG welding generates varying amounts of fume, depending on a number of factors: current, metal type, surface coating or contamination, operator practices. The fume composition is directly related to the consumable (wire) and any surface material. Primary fume components of concern are manganese & copper (where coated wires are used). As the process can be more continuous than MMA (SMAW) or 'stick' welding, fume can build up.
Recommended controls for welding fume	Ensure clean, uncoated metal – remove debris or coating where possible. Local exhaust ventilation, appropriate to task & workplace, will be required: • Extracted bench • On-gun • Fixed or mobile hood Where LEV is not adequate to control fume exposure, RPE is also required: • APT of at least 20 • Power-assisted or air-fed RPE • Additional filtration will be required if coating/surface contamination present when filtered devices are selected • For short-term tasks, type P3 high-efficiency disposable RPE is acceptable • In oxygen diffusive areas, e.g. enclosed spaces, RPE should be air-fed.
Possible Actions by National Labour Inspector	High Health Risk – Consider immediate action when undertaken in an enclosed space with no adequate controls (e.g. also work, use of fumes, use of administrative measures etc.) Medium Health Risk – Consider action in situations where control is missing/inadequate (e.g. use of Notices requiring action) or the hierarchy of control has not been followed, i.e. RPE without consideration of LEV. Low Health Risk – No action required where all controls are present and effective.

TS 3 Gas metal arc welding (GMAW) – also known as Metal Inert Gas (MIG) & Metal Active Gas (MAG) welding – mild/carbon steels Page 2 of 2



Training course for inspectors



Risk with short-term effect



Risk with long-term effect



[Link: SLIC \(Committee of Senior Labour Inspectors\) - PUBLIC GROUP - Library \(europa.eu\)](#)

Baseline checklist

- Assess 7 key aspects of chemical management practices
- All these key aspects must be in order (based on chemical agents directive)
- Answer is a 'yes' or a 'no'

Chemical Agents at the Workplace *Checklist for National Labour Inspectorates*

*Baseline checklist to assess the management of
chemical agents at the workplace*



How to use baseline checklist:

- “Walk, talk, look & check”



- Conclusions on outcomes of checklist

Possible actions of the NLI	
Responses	Action
All Yes - No risk	No further action needed.
A few No's - Small risk	Issue enforcement notes, ask for corrective measures and repeat the inspection checklist
Many No's- High risk	Issue enforcement notes, ask for corrective measures and ask for an advanced inspection by NLIs with specialist chemical knowledge

Next step for SLIC-CHEMEX: to develop an advanced level checklist

Roadmap on Carcinogens



Cooperation
with
Inspectorate

12 ROC CHALLENGES



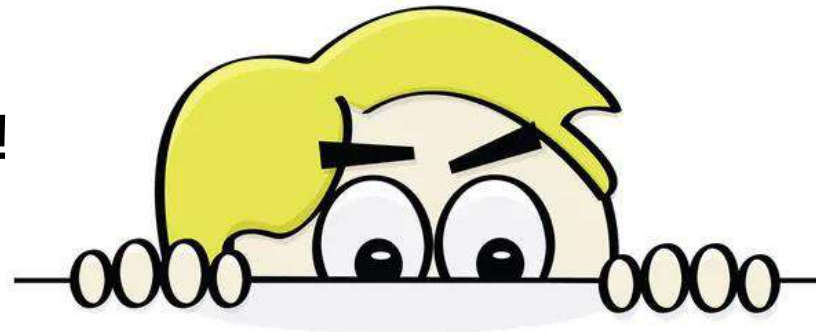
Cooperation with roadmap: publishing inspection results

Objectives

- Learning from one inspectorate to another
- Promote inspections related to occupational carcinogens
- Will inform employers of the approach and compliance expectation of Inspectorates when dealing with carcinogenic substances



Sneak peek in the following slides!



LEARN FROM INSPECTION CAMPAIGNS

ROADMAP ON CARCINOGENS[INTRODUCTION](#)[FIND FACTS](#)[FIND SOLUTIONS](#)[ABOUT US](#)[JOIN IM!](#)



INSPECTION CAMPAIGNS

[BACK TO OVERVIEW](#)[INTRODUCTION](#)[KEY FINDINGS](#)[PHOTOS](#)

INTERVENTION CAMPAIGN RESPIRABLE CRYSTALLINE SILICA

Consulting and focus on low-dust (dust-free) working methods on mining and construction sites.

Austria
Ministry of Labour and Economy / Central Labour Inspectorate

Sector(s)
Manufacturing

Duration of enforcement
May 2021 - May 2026
Number of inspections 2171

More information
ii6@bmaw.gv.at
www.arbeitsinspektion.gv.at

SCOPE OF INTERVENTION

Phases:

1. Implementation Phase I
2. Impact monitoring phase II and comparison between Phase I and II

Focus:

1. Raising awareness
2. Implementing technical protective measures
3. Improvement of networking
4. Prevention of occupational diseases

KEY FINDINGS OF INTERVENTION

GOOD PRACTICES FOR CRYSTALLINE SILICA

Have a look at practical solutions from other companies and industries.

[FIND GOOD PRACTICES](#)

SUBSIDIES PROGRAMS

Some EU Countries are offering funds for structural substitutions.

[HAVE A LOOK](#)

KEY FINDINGS OF INTERVENTION

POSITIVE

The improvement between the two phases:

- Awareness that respirable crystalline silica is classified as a hazardous chemical agent and has carcinogenic potential for humans
- Determination of the exposure of workers to mineral dust - Dust concentration measurements
- Compliance with the legal requirements for the evaluation of working materials
- Risk assessment dust
- Availability of health and safety documents in the workplace
- Protocols on dust concentration measurements in use
- Protective and technical measures to reduce and prevent dust exposure
- Positive examples of working practices in companies
- technical measures to ensure that the limit values for respirable crystalline silica are permanently not exceeded
- Safety and health plan according to Art. 5 (b) of Directive 92/57/EEC has to contain measures against the chemical agent respirable crystalline silica
- Information on mineralogical composition in the safety and health documents

PICTURES



Good practice: Extracted hand machines: The illustration shows 2 extracted hand machines used for cutting and drilling work.



GOOD PRACTICES FOR CRYSTALLINE SILICA

Have a look at practical solutions from other companies and industries.

[FIND GOOD PRACTICES](#)

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LET'S GET SMART ABOUT CARCINOGENS AT WORK

Annually more than 100,000 people die because of work-related cancer. Let's join forces to find and share smart solutions to reduce exposure to carcinogens across European workplaces.

FIND ANSWERS. IN WHAT SECTOR DO YOU WORK?

RESULTS (12)

INTRODUCTION ON CARCINOGENS

When carcinogens are involved at the workplace, employers have to do everything in their power to prevent workers coming into contact with these substances. As you might imagine, the best way to achieve this is complete elimination or substitution of the carcinogen with a less dangerous alternative: taking away the source.

INTERVENTION CAMPAIGN RESPIRABLE CRYSTALLINE SILICA

Consulting and focus on low-dust (dust-free) working methods on mining and construction sites.

Ministry of Labour and Economy
Central Labour Inspectorate

STOP: BASIC RULES

There are some basic rules that apply whenever carcinogenic

SUBSTITUTION OF MATERIALNAME

In Germany, occupational safety and health (OSH) is

FIND FACTS ON CARCINOGENS

LEARN GOOD PRACTICES

INTERVENTION CAMPAIGN RESPIRABLE CRYSTALLINE SILICA

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Ministry of Labour and Economy
Central Labour Inspectorate

Follow up with Roadmap



- New release website end 2024/begin 2025
- The first set of inspection cases will be published
- Call to NLI's to submit extra cases
- Cases will be reviewed by SLIC CHEMEX before publishing
- Promotional article once the new website is launched

[Link: Friend Archive - Roadmap on Carcinogens](#)

Interface OSH-REACH

- European directives on safety and health at work
 - Chemical agents directive (CAD)
 - Carcinogens, mutagens or reprotoxic directive (CMRD)
 - Directives transposed into national law
- Regulations: REACH



Interface OSH-REACH

CAD/CMRD

- All chemical agents
- The employer
- Risk assessment
- Combination effects
- Substitution of hazardous substances
- OEL (Occupational exposure limit values)

REACH

- Chemical substances and mixture put on the market
- The registrant
- Exposure scenarios
- One substance/mixture at a time
- Authorization and restriction
- DNEL (derived no-effect level)

Pilot inspection project on REACH restriction Di-isocyanates

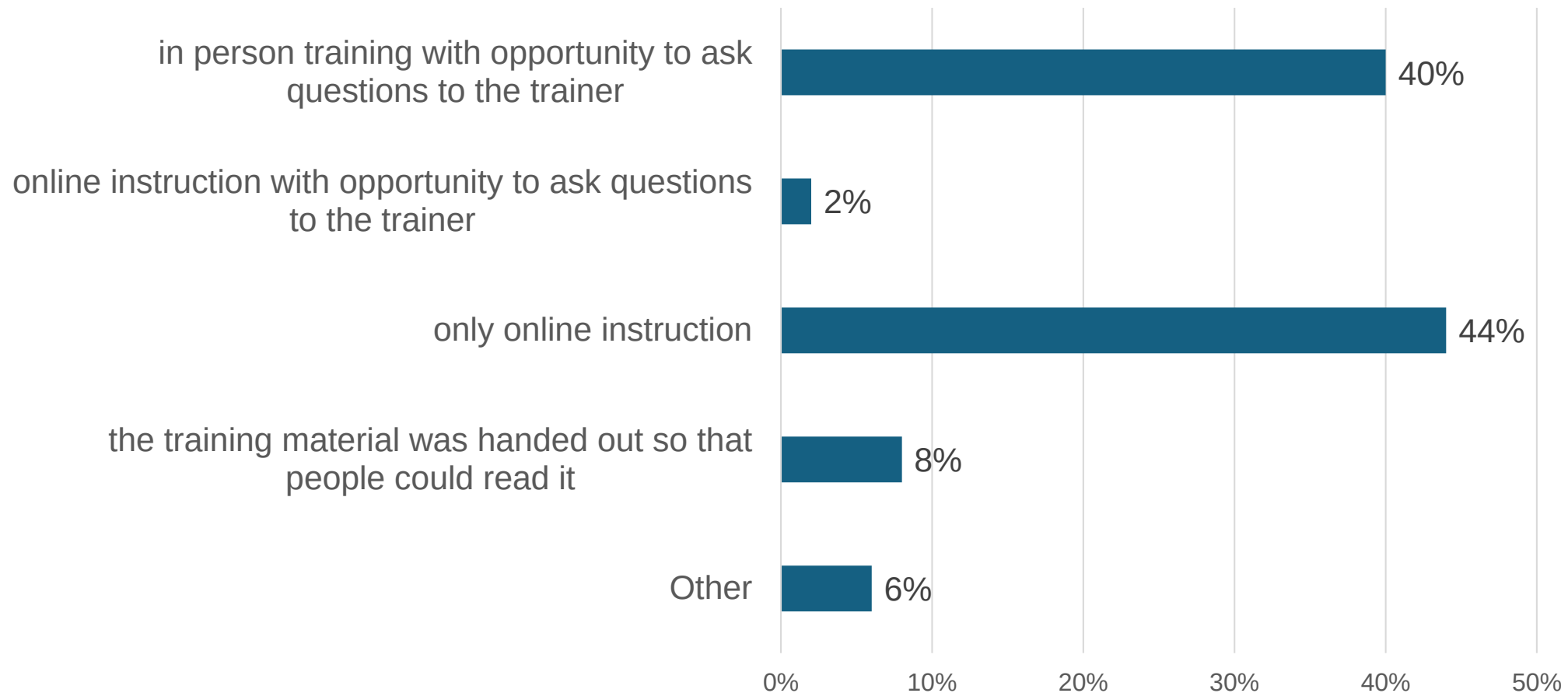
- Skin and respiratory sensitizers (asthmagens)
- Mandatory training for users of diisocyanates (different levels)
- Questionnaire and explanatory notes for inspectors
- Nov 2023-February 2024
- 73 inspections in 8 Member States



Summary of results of 73 inspections

- Wide spread use among sectors
- The restriction increases awareness
- 70% of the companies had some kind of shortcoming (no training, too low level, no proof of training)
- Almost 80% of the companies received training material
- Incentive for substitution, but may have similar risks

Results of 73 inspections: kind of training



Inspection challenges on REACH restriction on Di-isocyanates

- Enforcement could be REACH, OSH or both
- Sometimes REACH and OSH authorities are separated

Cooperation between
REACH and OSH
authorities is needed

- The restriction is more in detail than the OSH legislation
- The detailed level of restriction requires a good familiarization by the inspectors
- Difficult for inspectors to determine when the trainer has adequate competence
- Workplace visit remains important

Examples of enforcement: what would you do...?

Respirable Crystalline Silica (carcinogen): *If substitution is not possible the employer should use the principle of minimisation stated in article 5.3 of the [CMR Directive](#) (lowest level of exposure technically possible).*



1. Prohibit the work immediately at the workplace, work cannot be resumed unless water suppression is used
2. Prohibit the work immediately at the workplace, work can be temporarily resumed with use of respiratory protective equipment (RPE) and employer should acquire tools with LEV or water suppression within a certain timeframe
3. Impose the employer to do or revise the risk assessment

Examples of enforcement: what would you do...?

Diesel engine exhaust (DEE) is a known human carcinogen, for which no safe threshold exposure exists.- Diesel powered engines are used in a wide variety of sectors, and many workers are still exposed. Employers should aim at avoiding exposure completely, or if that's not technically and operationall feasible, minimise exposure as much as possible.



1. Enforce substitution by battery-powered excavators within 6 months; it's a genotoxic carcinogen!
2. Allow the employer to substitute only after the normal depreciation time (~ 5-7 years)
3. Do not force substitution, as it's an outdoor situation

SLIC Thematic day: hazardous chemical agents

How to develop an efficient strategy to enforce OSH of workers exposed to hazardous chemical agents? (With special focus on CMR).

- Survey among all Member States
- Presentation of inspection projects
- Roadmap on carcinogens and EU-OSHA
- Discussion corners
- Report

[SLIC \(Committee of Senior Labour Inspectors\) - PUBLIC GROUP - Library \(europa.eu\)](https://europa.eu)

SLIC Thematic day: hazardous chemical agents

Germany:

- 12 carcinogens:
 - engine motor emissions, formaldehyd, Ni-compounds, Trichlorothyleen, Wood dust, Methyleenaniline, Cr(VI)-compounds, Cobalt and Co-compounds, Silica dust, asbestos, benzen, Benzo(a)pyrene)
- Mid term results: 40y-exposure registry was very often unknown, health surveillance 50%
- More information: www.gda-portal.de

SLIC Thematic day: hazardous chemical agents

Finland

- All employers need to report workers exposed to carcinogens to the Finnish Institute of Occupational Health
- OSH authorities receive yearly the compiled data to gain a better idea of where exposure occurs, allowing to tighten up the enforcement and counselling measures as needed

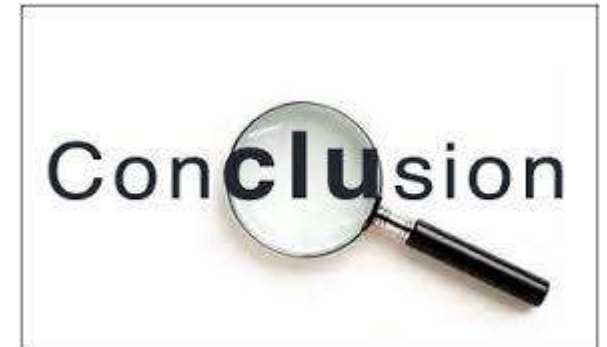
Inspection project: Spain: silica dust

- Various cases of silicosis Valencia/Vizcaya (2008)
- Inspection campaign, first local, later National (2014)
- Yearly inspections
- Instructions for inspectors (10 pages, practical measures)
- In 2024: 274 companies visited -> 85 infringements
- 4674 companies handling stone related products
- Possibly 1800 infringements?
- Cooperation needed!



TO CONCLUDE

- Cooperation on EU level is growing:
 - Guidances to support inspectors
 - Training material to empower inspectors
 - Stakeholders cooperation: Roadmap and ECHA
 - Exchange information and experiences between countries



But: there is more work to be done!

Thank you!
Any clarifying questions?

