

Results of the Workers' Exposure Survey

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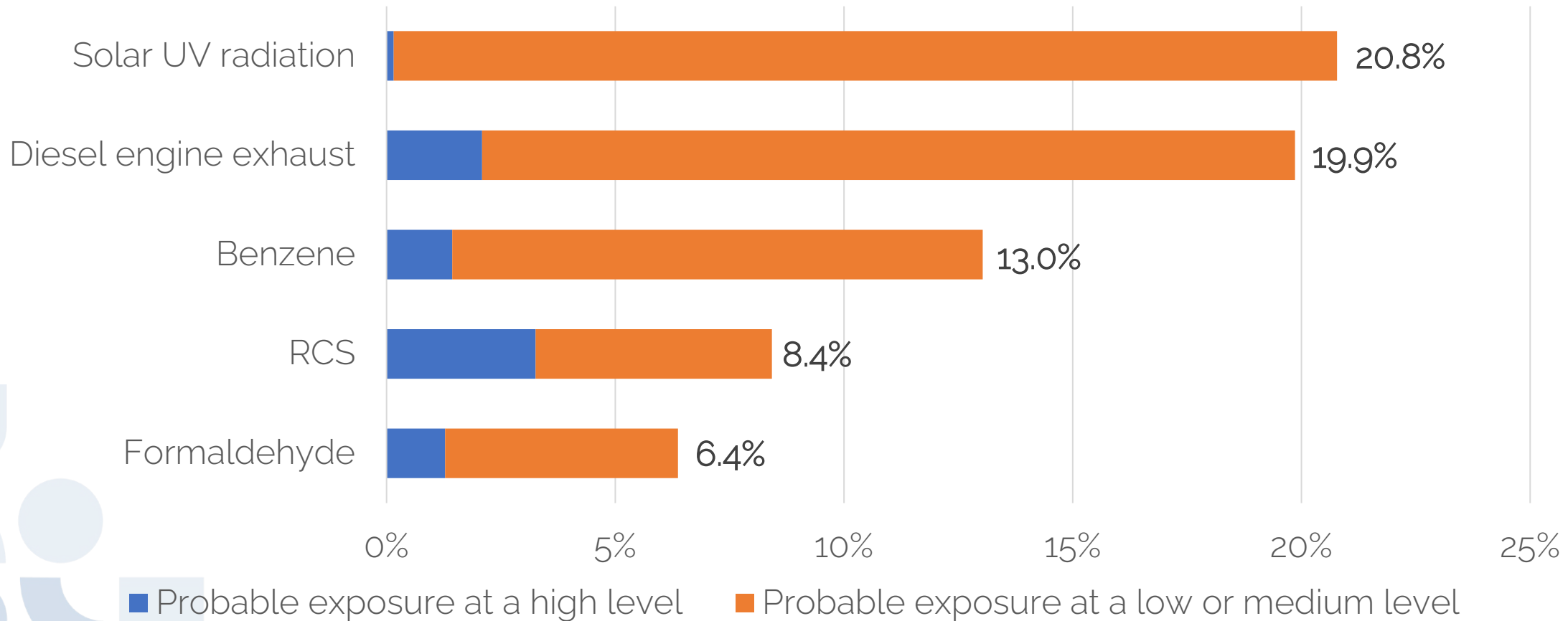
Added value of WES

- Workers answered detailed questions about the working tasks of **the last working week**
- Expert assessment of their exposure to **24 cancer risk factors**, using an innovative tool [OccIDEAS](#)
- Exposure to **both chemical** (including process-generated substances and mixtures) **and physical risk factors**
- **Multiple exposures** over a working week

Prevalence of the exposure among the working population

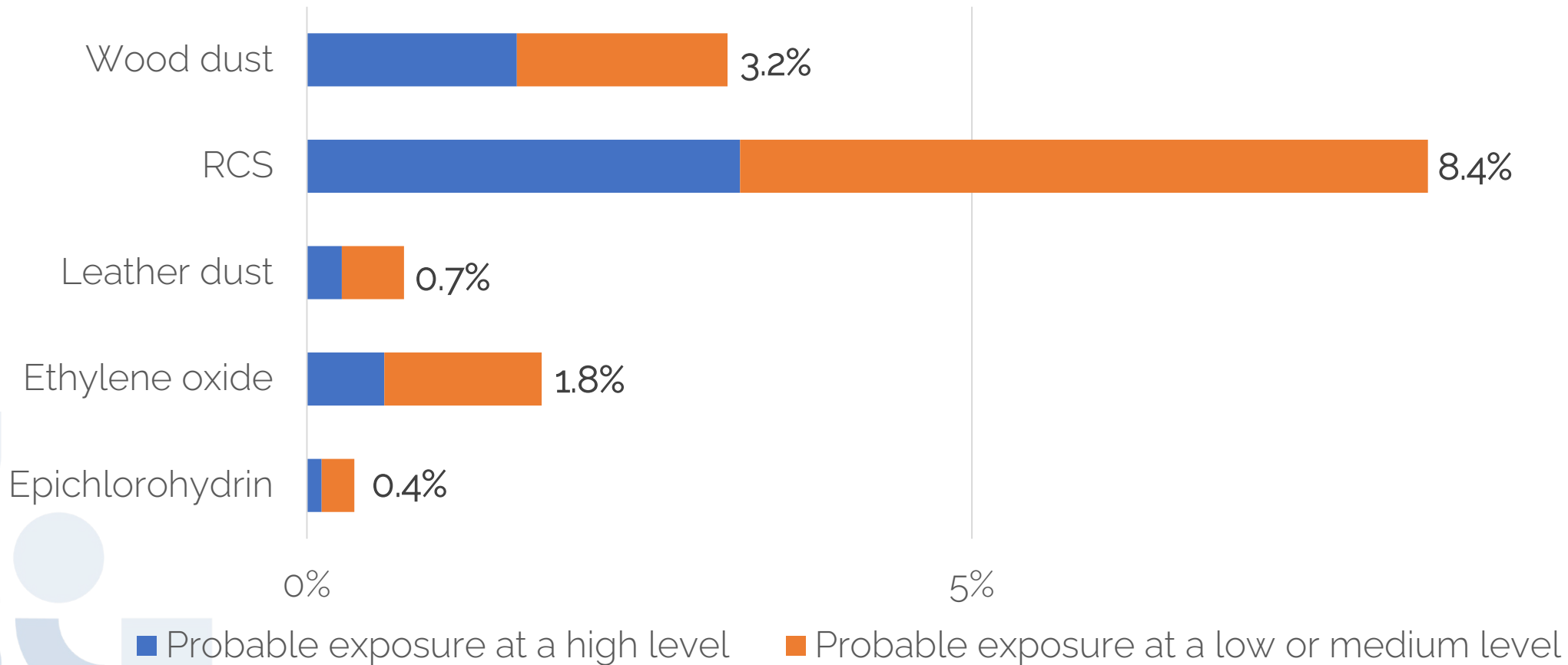
- WES respondents represent 98.5 million European workers
 - Finland, France, Germany, Hungary, Ireland and Spain
 - Self-employed, employees, family workers
 - All occupations and economic sector of activity, except private households, extraterritorial organisations and armed forces
- 47% of the workers exposed to at least one of the 24 cancer risk factors over a working week

The 5 most common cancer risk factors



Base: all workers in the six countries, WES 2023, EU-OSHA.

Top 5 cancer risk factors with exposure at a high level

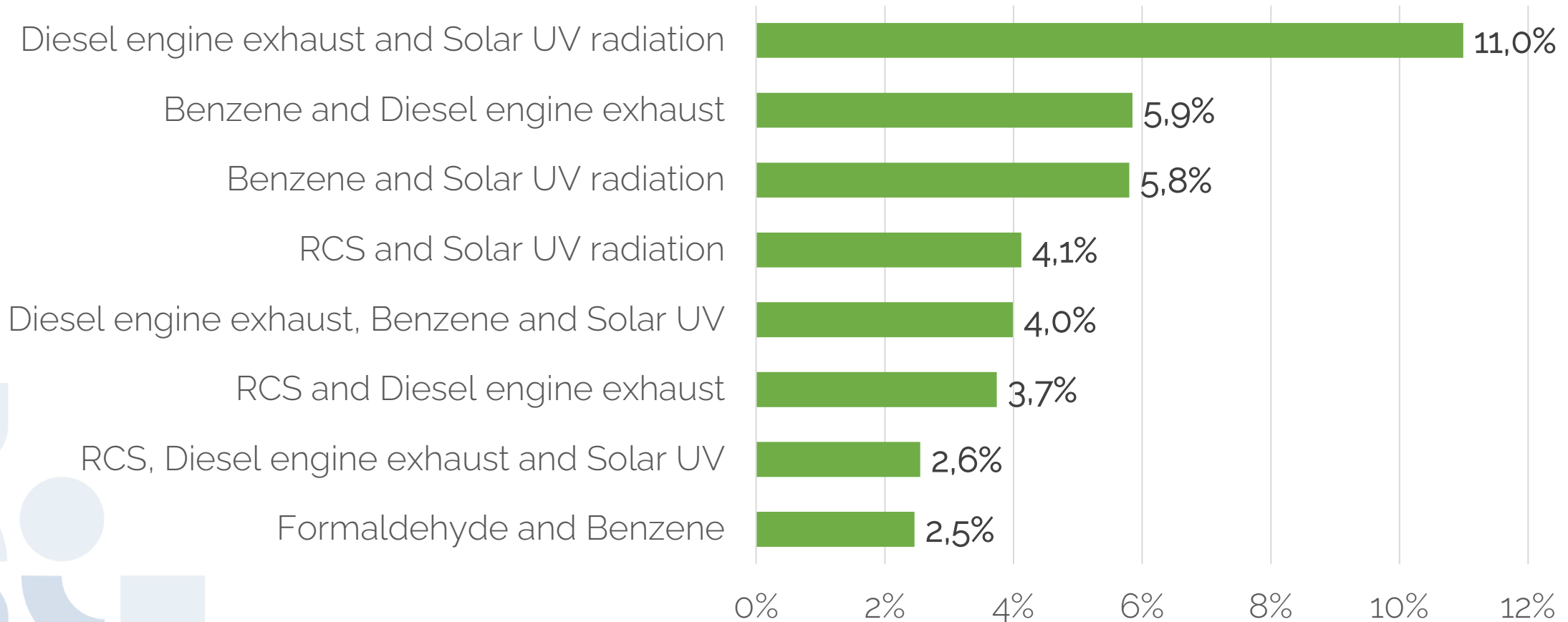


Base: all workers in the six countries, WES 2023, EU-OSHA.

Prevalence of the multiple exposures among the working population

- 26% of the workers exposed to two or more of the 24 cancer risk factors over a working week.
- More than 60% of the workers in the mining and quarrying activities (NACE B) and in the construction activities (NACE F).
- Addressing multiple exposures is an important issue for prevention of exposures to cancer risk factors.

The most common multiple exposures



Base: all workers in the six countries, WES 2023, EU-OSHA.

Multiple exposures to different metals

Most common multiple exposures over a working week

- Chromium(VI), Cadmium, Nickel, Lead, and Cobalt

Other exposures for the workers exposed to metals

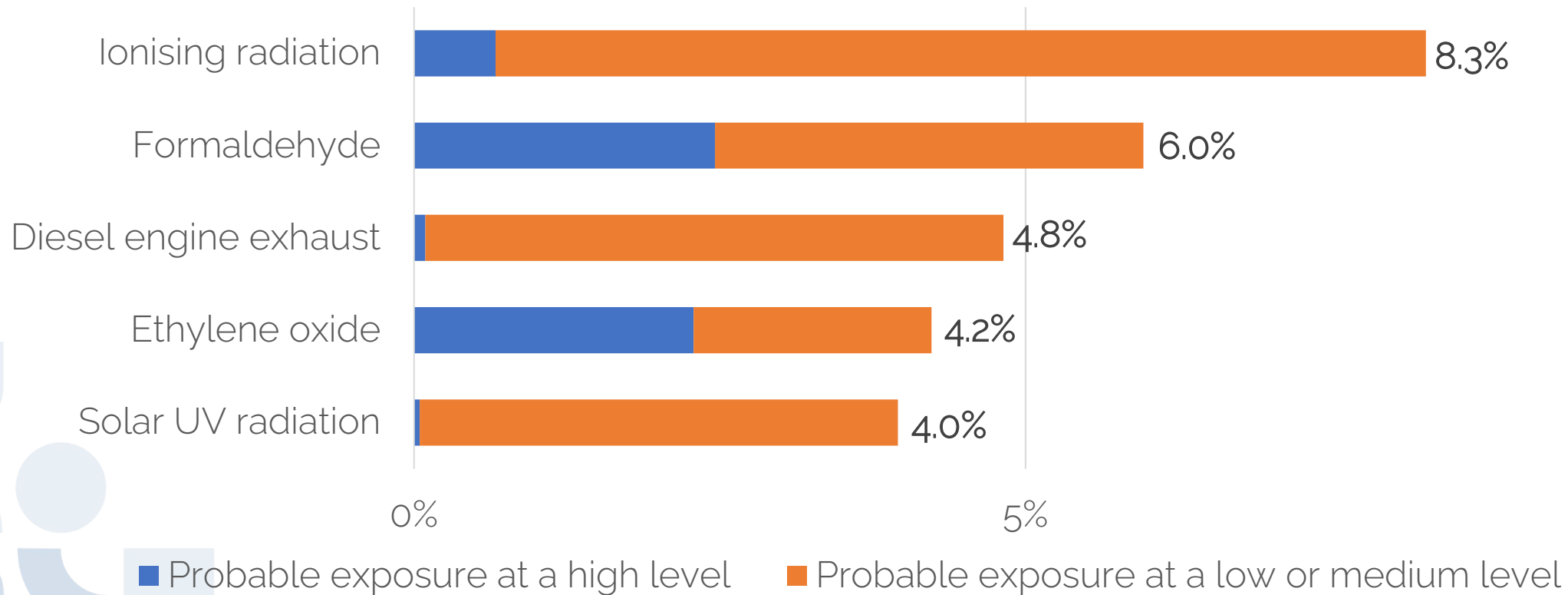
- RCS, artificial ultraviolet radiation (in particular, exposure to the eyes)

Exposed workers

- Male workers
- Metal workers, moulders and welders, machinery mechanics and repairers, and related occupations
- Refuse workers

Focus on the workers in human health activities

5 most spread cancer risk factors



Base: all NACE 86 workers in the six countries, WES 2023, EU-OSHA.

Radiation: who is exposed according to WES

Solar UVR: 20.8% of workers

- 2 out of 3 are male workers
- Spread in all jobs but in particular among construction trades, farm workers, drivers and protective services workers

Artificial UVR: 2.9% of workers

- 68% are male workers
- In particular among metal workers, welders, machinery workers, but also hairdressers and beauticians, and health workers

Ionising radiation: 2.5% of workers

- 53% male and 46% female workers
- In particular among health workers, science and engineering workers, ship and aircraft controllers and technicians, and travel attendants



Radiation: specific circumstances of exposure

Solar UVR

- outdoor activities in general,
- working with or near the snow without eye protection.

Artificial UVR

- mostly when doing welding tasks,
- when using UV light (for example in hair and beauty salons),
- when applying some types of metal coating (such as metal thermal spraying).

Ionising radiation

- in the medical environment,
- in manufacturing activities (using X-rays or gammagraphy equipment),
- in air transport.



Exposure to diesel engine exhaust emissions

Assessed exposure: 20% of workers

- Most of them at a low level

Exposed workers

- Petrol and gas station workers
- Mine and quarry workers
- Road construction and maintenance workers
- Drivers and transport workers

Exposure at a high level

- driving diesel vehicles as part of the work inside a building (or in a mine)
- not using appropriate protection measures when maintaining a diesel vehicle



Exposure to benzene



Assessed exposure: 13% of workers

Exposed workers

- Petrol station workers
- Road construction and maintenance workers
- Firefighters

Exposure circumstances

- fuelling vehicles with petrol as part of the work
- performing maintenance work on vehicles using petrol
- working near petrol-powered vehicles with their engine running

Exposure to respirable crystalline silica

Assessed exposure: 8.4% of workers

Exposed workers

- Construction trade workers
- Mine and quarry workers
- Road construction and maintenance workers
- Ceramics production workers

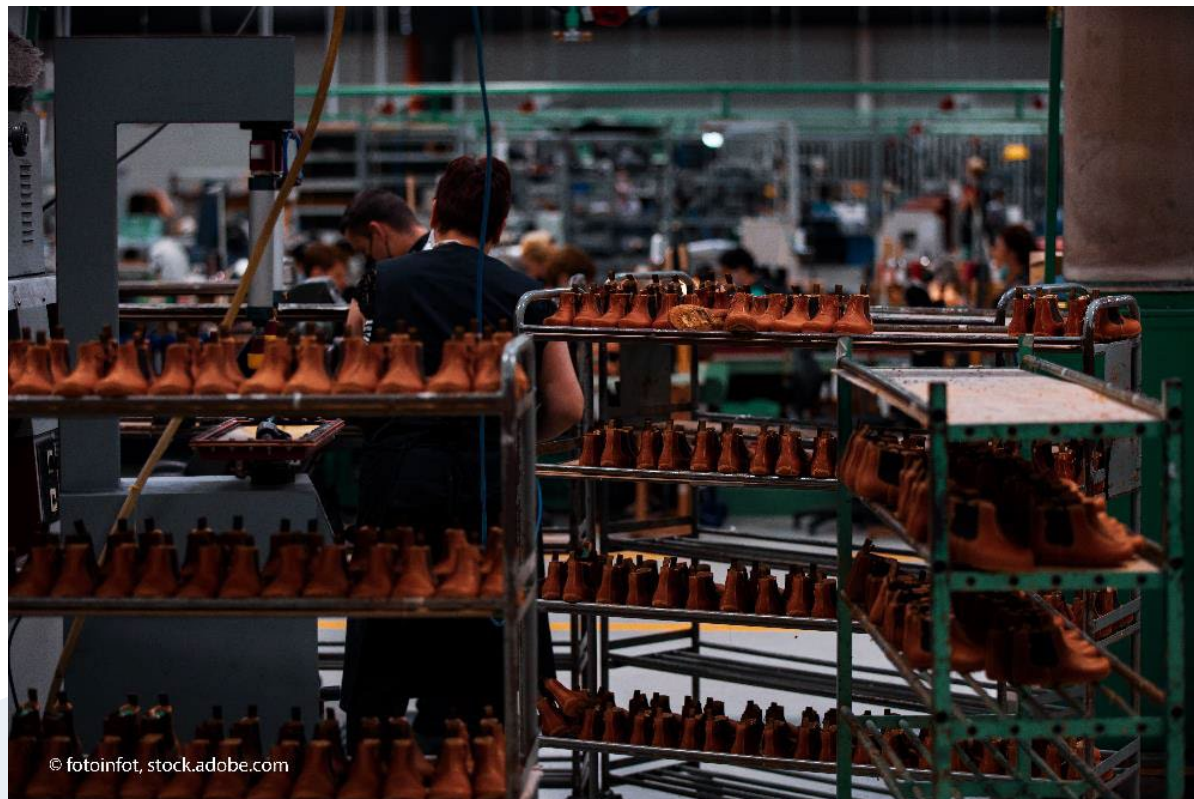
Exposure circumstances

- presence of sand dust on construction site
- plastering, demolition, screeding floors, mixing cement, ...
- cutting, grinding, drilling stone, concrete, bricks



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Exposure to formaldehyde



Assessed exposure: 6.4% of workers

Exposed workers

- Upholstery workers
- Florists
- Firefighters
- Shoes/ finished leather goods workers

Exposure circumstances

- use of epoxy two-part or plastic resin wood glues
- working with plywood, particle board, marine ply or MDF

Planned follow-up

- On-going study on exposure to cancer risk factors in the human health and social work activities sector
- Comparison of WES results with existing data sources in Finland, France, Germany and Spain
- In-depth analyses of WES results and new publication by the end of 2024
- Stimulating research by providing public access to the dataset and questionnaire

Possible contribution of WES results

- Better identification of risk factors
- Increasing awareness of exposure to cancer risks at work
- Prioritisation of sectors, occupations, tasks and cancer risk factors for prevention purposes
- Better design and targeting of preventive measures
- Contribution to evidence base for policy, including evaluation

More information on WES

- Telephone survey targeting mobile phones.
- A random sample of workers aged 15 years or more participated in each country.
- Trained local interviewers conducted the interviews between September 2022 and February 2023.
- A total of **24,402 valid interviews**.

Visit the Workers' exposure survey section on our website!

<https://osha.europa.eu/en/facts-and-figures/workers-exposure-survey-cancer-risk-factors-europe>

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