CONCLUSION REPORT ON CHALLENGE 3.2
'INVOLVING OCCUPATIONAL PREVENTION ORGANISATIONS'

Table of Contents

INTRODUCTION

Challenge aims

The initial idea of the project within the second Roadmap phase was to explore whether a union-wide applicable self-assessment tool can be generated that would offer companies to check their compliance with legal provisions and also deliver links to relevant risk reduction measures.

Challenge 3.2 aimed at offering a specific **instrument for carcinogens** in order to support the risk assessment specifically for these substances. Furthermore, the instrument should address a novice level of users, not presupposing any in-depth knowledge and targeting employer and worker level. As a complementary benefit it tool originally aimed at additionally providing a summary report including a list of sector and substance specific sources and recommendations after finishing the checklist. The tool had the working title 'CarcCheck' and this wording is used throughout the report.

Initial deliverables and final outcome

- Data generation (01/21-12/21): The first step included generating a starting point by **collecting examples** across Europe that similarly approach and address the risk assessment. The collection of sector and substance specific control guidance sheets was of equal importance.
- Development (01/22-12/22): After comparing the tools identified during data generation, a **set of questions** was derived following the condition to limit the number of questions. At the same time, the sectors and occupations of relevance for carcinogens covered under the Roadmap were identified.
- Reviewing (01/23-12/23): After completion of the draft CarcCheck questionnaire, member state national experts were consulted to perform a **plausibility analysis**. One dedicated event further involved **stakeholders to have their say** on the CarcCheck. As it became evident that the CarcCheck would be finalised, the tool was further substantiated by assigning sector or task specific good practices to the sectors and carcinogens.
- The final CarcCheck (01/24-09/24): After exploring some options how the final CarcCheck will be most useful, the challenge team realised that the collected data base behind the CarcCheck could also serve as a search tool on the Roadmap website. Therefore, the initial plan to provide a PDF with a link list was abandoned in favour of an **online search function tool** (online since 09/09/2024).

MILESTONES

Data generation

Annex I of this report provides a non-exhaustive list of tools in Europe identified by internet research and feedback from the Roadmap partners. The main starting points (as described in more detail also in the first activity report (Link)) were the GDA Hazardous Substance Check (a German tool) and SEIRICH (a French tool).

Insights from the overview of tools were that the different tools and instruments vary in their goals and not all of them are usable for carcinogens. Some of them are targeted at experts in the field while others start at novice level. The obvious focus of each tool on the respective national demands and duties made them very specific for national levels but reduced the usefulness on the European scale. Some tools need a subscription or the services are charged and the download of results was not always possible. **The challenge team decided to create an instrument usable as a desktop and mobile digital version free of charge and without any subscription or a download.**

Development

A) Deriving the structure

When the respective tools were compared in order to identify commonalities, the team was able to decide rather early in the process that **a set of seven to nine questions** would be sufficiently covering the relevant aspects of the risk assessment when dealing with carcinogens at work. Since a novice level for the future users was the goal, it was furthermore decided to structure the questions along the hierarchy of control, where possible, in order to educate without explicitly mentioning the STOP principle. This resulted in the structure sketched in **figure 1**. The first step is the identification of one or multiple carcinogens, followed by substitution, technical and organisational measures. Since personal measure are only to be used as a last resort after all other options have been exhausted, the team included the questions to assess the exposure situation before looking at personal protection. The last block summarises further duties for the employer but also addresses workers' rights and duties. This block contains also references to duties that might differ in national legislation and could therefore not be addressed uniformly in the core CarcCheck.

Figure 1: General structure of the Draft CarcCheck

The final resulting questions are summarised in **table 1**. Annex II shows the complete idea and structure of the resulting CarcCheck (developed from Q1/23 to Q3/23) in form of questions as this was still the idea in 2023. Deciding on the questions (their length, their language) was complemented by the task how to answer these questions and what messages to deliver in the answers. The team tried to take care that the texts were showing ideas to consider instead of demanding a route of action. Additionally, the aim was to include as much helpful advice as possible (e.g. providing limit values) so that the user does not have to search for information outside the Roadmap website. It is worthwhile mentioning, that the other projects performed under the umbrella of RoC2.0 helped generating a lot of **cross-references within the Roadmap structure** (FactSheets for Q1 and Q5a, Challenge 2.1 for Q2, Challenge 2.2 for Q3, Q4 and Q6, Challenge 1.1 for Q5b and Q7a) and thereby offering substantial further information along the guided risk assessment path for carcinogens.

Question 1	Are carcinogen(s) present?
Question 2	Can the carcinogen or process be replaced?
Question 3	Are technical prevention measures in place?
Question 4	Are organisational prevention measures in place?
Question 5a	Are limit values in place?
Question 5b	Is exposure determined?
Question 6	Is personal protective equipment used?
Question 7a	Further duties and additional helpful measures (for employers)
Question 7b	Are you aware of your rights and duties? (for workers)

Table 1: Summary of questions developed for the Draft CarcCheck

B) Connecting Carcinogens with sectors and occupations

The first step was connecting carcinogens in a database with those sectors in which they are either used or are process-generated. This work was done with the help of existing impact assessment studies and scientific reports (from DG EMPL, ECHA, IARC) and an intense online search. In Q4/23, the challenge team was finally able to finish this task and identify **170 sectors in which 34 carcinogens** currently covered under the Roadmap most likely occur. The team was further able to describe 170 occupations (one job can be relevant for multiple sectors and carcinogens, i.a. construction workers (asbestos, RCS) or plumbers (lead, asbestos, RCS, even welding fumes) related to these sectors and the respective carcinogens.

Reviewing

C) Asking for plausibility and involving stakeholders

A search tool as the CarcCheck can only ever act as a starting point when assessing someone's workplace situation. However careful the information has been compiled, gathering the feedback from member state experts as well as from stakeholders was a significant part of the project planning. After the draft CarcCheck was developed, the challenge team therefore initiated a round of **expert reviews** for the questions and answers (structure, language, plausibility for the relationship of carcinogens, sectors and occupations). In parallel, an online **event for stakeholders** was planned and took place on 26 September 2023, that included the offer of active participation in a stakeholder survey (banner for the event see **figure 2**).

Figure 2: Stakeholder event 'Have your say' 26 September 2023

The expert feedback (from representatives from insurance associations and exposure assessors mainly from Germany) and the stakeholder feedback confirmed the route of action to have a short tool with very simple language (preferably in all languages) and that the future users-to-be mainly expects practical solutions when using the tool. The feedback in 2023 made the challenge team continue and change the initial idea to only provide a PDF. By the end of 2023, the team started to realise an **online tool** (for desktop computers and mobile versions) that on the long run would be available in all European languages.

Identifying and connecting relevant information for the CarcCheck

D) Finding task specific best practices and control guidance sheets across Europe

One major aim of the CarcCheck was to provide targeted and task-specific guidance's in order to promote ideas how the risks from carcinogens associated with a job in a certain sector can be prevented or at least minimised if the users find out that their job is associated with a significant exposure. Therefore, upon further developing the CarcCheck, the team utilised the review of existing **best practices and task guidance sheets** and connected them to the relevant occupations. This could

be done due to the work already performed under Challenge 2.2 'Guidance to risk management' in which almost 1,000 documents had been reviewed in order to derive general measures along the hierarchy of control (Basic prevention strategies) and to create a template for control guidance sheets (Link). For detailed reference which source have been consulted, the conclusion report can be consulted here (Link).

Control guidance sheets and best practices might be much targeted and address for example only organisational measures within a certain task (example, example 2) or will cover the TOP elements (example). As the challenge team aimed at providing tailored help, we reviewed all relevant documents and identified in Q4/23 whether they were relevant for S – T – O – P or a combination thereof. As a result in the final CarcCheck, the user researching for a job will receive the information whether there are substitution solutions present or if technical, organisational and personal measures are available, respectively.

E) Linking relevant resources from the RoC

As mentioned above, the information provided within the CarcCheck could substantially be enriched by the results and outcomes of other RoC2.0 projects.

Structure	Type of Question	RoC Sources and Results
Question 1	Are carcinogen(s) present?	Factsheets (general overview)
Question 2	Can the carcinogen or process be replaced?	Ch2.1 (substitution), Ch2.2 (examples)
Question 3	Are technical prevention measures in place?	Ch2.2 (examples), Ch4.3 (examples)
Question 4	Are organisational prevention measures in place?	Ch2.2 (examples)
Question 5a	Are limit values in place?	Factsheets (EU and national OEL)
Question 5b	Is exposure determined?	Ch1.1 (exposure databases)
Question 6	Is personal protective equipment used?	Ch2.2 (examples)
Question 7a	Further duties and additional helpful measures (for employers)	
Question 7b	Are you aware of your rights and duties? (for workers)	

Table 2: Linking the RoC sources to the final CarcCheck structure

For instance, an overview of exposure database solutions across Europe in order to facilitate understanding how this is compiled in other member states (Link to Ch1.1 results) and in order to support step 5b of the CarcCheck.

F) Specific highlights

The challenge team furthermore highlighted two important issues prominently by including alerts for substances that need to be **authorised under the REACH** regulation (see **figure 3, left**) and which have additional risks due to **skin contact** (see **figure 3, right**). A skin notation under the CMRD gives specific attention to substances where dermal exposure is highly relevant. Thus, risks reduction measures to

avoid dermal contact should be installed. The authorisation duty alert should help to be aware of obligations under REACH and connects to results from Ch2.1, where alternatives have been evaluated.

Figure 3: Alerts displayed in the CarcCheck for REACH (left) and skin notation (right)

The final CarcCheck

The decision to provide for the user an easy way to learn whether carcinogens play a role at their respective workplace made it necessary that the team displayed the data for the target group user (worker, employer with a focus on small enterprises).

G) Generating Occupation descriptions

In the attempt to more directly address the results of the CarcCheck to the end user, the challenge team decided to include a descriptive text for each occupation in which the relevant risks, sectors and tasks are shortly described. By searching for an occupation (in **figure 4** three examples are shown) the user gets a preview of these occupation with a simple description alongside the carcinogen(s) which could be present in these jobs, keeping in mind this tool addresses in priority novice users.

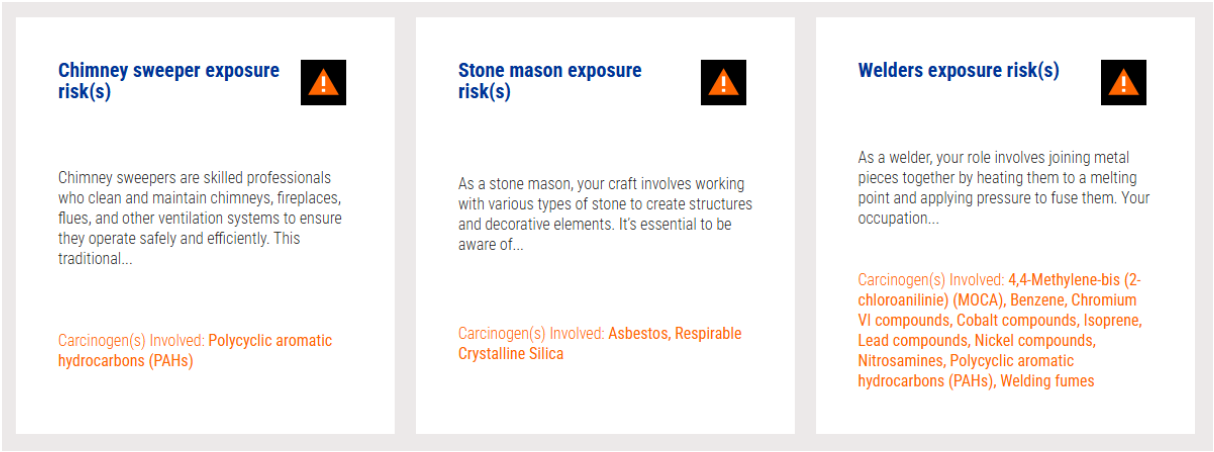

Figure 4: Preview results displayed in the CarcCheck when searching for chimney sweeper, stone mason and welder

The project team created occupation descriptions for each occupation covered under the CarcCheck (170). Considering CarcCheck aimed to be translated into numerous EU languages, the text was generated with AI support with a check of experts from the challenge team thereafter. A continuous improvement is expected based on the needs and feedback from users.

H) Disclaimer issues

It cannot be guaranteed that the information displayed in the CarcCheck are exhaustive. The CarcCheck does not cover all carcinogens or process-generated carcinogens and even the future activities will most likely address approx. 50 substances under the Roadmap that are most relevant in European workplaces. It for example does not cover all work-related cancer risk factors. Furthermore, data on used carcinogens is not readily available and therefore the information provided within the CarcCheck

is limited to data accessible to the challenge team (no external study contractor supported the work). Also, workplace situations and sector and job distribution may vary in European member states and the CarcCheck will only ever deliver a first idea where carcinogens might be a potential hazards. Last but not least, although carefully compiled, data might be outdated. Therefore, a disclaimer was included for the occupation description (**figure 5**) to make clear that some uncertainties remain.

> *'The CarcCheck is based on data collected for the EU. Therefore, uses of a substance might not be of equal relevance in all member states. The CarcCheck indicates were a carcinogen can potentially be involved or released; exposure potential will also vary in different sectors. Only the risk assessment will show whether this is the case in a real workplace or in a user situation.'*
> **Figure 5:** Disclaimer for the occupation description

FINAL RESULT AND SUMMARY

- The project was started beginning of 2021 and was finalised in the 3rd quarter of 2024.
- What started as an idea to support the self-assessment for legal compliance with the duties laid down in the CMRD, finally resulted in a principle search function of the current Roadmap website https://www.stopcarcinogensatwork.eu (the entry in the menu is shown in **figure 6** below)

Figure 6: Search function in the Roadmap menu that resulted from the CarcCheck idea

- The user can search for an occupation and will be presented with a short description of their job that is followed by a list of carcinogens playing a role in their job and possible measures. The info is further supplemented with useful additional information (e.g. whether the substance has a skin notation). Lastly, the occupation concludes with remarks to employer's duties and workers' rights in general.

OUTLOOK

Status: June 2025

Currently, the RoC website including the CarcCheck is available in Dutch, English, French, German, Portuguese and Spanish. The Roadmap management intends to provide further languages in course of 2025 and aims at offering all languages relevant for European countries by the end of the Third Roadmap period in 2027.

Additionally, the data base behind the CarcCheck is constantly being updated whenever the Roadmap partners agree to integrate more carcinogens into the website (currently 34). This is associated with gathering data on the relevant sectors and occupations as well as available national or European best

practices. The project team intends to continue this work until the RoC3.0 concludes its journey in 2027.

Special thanks

Thanks to our partners within the Roadmap team, the content of the resulting search function and translations were checked by national experts on carcinogens at work. The project team from France and Germany would like to express its gratitude towards these experts without whom we couldn't have reached the results.

Special thanks go to Jasper Drieshen who realised an online tool and even promoted the initial idea into one core element of the Roadmap website.

Annex I – Table of tools assessed to derive the CarcCheck

Tool	Link
EU-OSHA: e-tool	Link
DE: GDA Gefahrstoff-Check	Link
DE: GDA Orga-Check	Link
AT: Arbeitsstoffverzeichnis	Link
FR: Chemical Risks Pro	Link
FR: SEIRICH	Link
EU-OSHA: Oira	Link
FR: Oira	Link
SE: Kemiguiden	Link
PT: Hazardous substance check	Link
NO: online tool for risk assessment	Link
DK: Online tool/questionnaire for chemical risk assessment	Link
IE: Your steps to chemical safety guide	Link
UK: the health and safety toolbox	Link
DE: EMKG	Link
DE: SUBSELECT	Link
GIZ Practical Chemicals Management Toolkit	Link
Chemsec Textile Guide	Link
SE: PRIO online tool	Link
PL: RISk score	Link
NL: Werkwijzer Arbobeleidscyclus	Link
DE: KSS guide	Link
AT: Krebserzeugende Arbeitsstoffe auf Baustellen	Link
AT: Gib Acht vor Krebs am Arbeitsplatz	Link
AT: krebserzeugende Arbeitsstoffe in Gesundheitseinrichtungen	Link
NZ: Hazardous substances	Link
CA: Guide ‘Are there carcinogens in your workplace?‘	Link

Annex II – Draft CarcCheck questions

Entry choice

Please select your role in the company

☐ Employer ☐ Worker

Question 1

Are carcinogen(s) present?	
☐ Yes	☐ I don't know, help me find out
Explanation: This choice will be the basis for the offered results	
☐ Please specify the carcinogen ☐ Please specify the occupation ☐ Please specify the sector/branch	☐ choose your occupation (drop-down) ☐ choose your sector/branch (drop-down)

→ A result text will be generated

With your choice of occupation and sector/branch it is likely that you/your worker is exposed to Carcinogen(s) A (and B)

Question 2

Can the carcinogen or process be replaced?		
☐ Yes	☐ No	☐ I don't know, help me find out
Explanation: Three selection options discriminating between 'Yes' , substitution checked and not possible' and ,no knowledge'		
Redirection to end of the CarcCheck	Free text field for reason why substitution is not feasible	Result text

→ A result text will be generated

If 'I do not know, help me find out' was selected, the following text might appear: With your choice of Occupation and sector/branch it is likely that you/your worker is exposed to Carcinogens A. The first measure of choice for carcinogens are their substitution. A list of possible substitution for carcinogen A will be generated. If authorisation duties apply, this will be indicated in the automatically generated text as well.

Question 3

Are technical prevention measures in place?	
☐ Yes	☐ I don't know, help me find out
Explanation: Selection choices for ,Yes' will be included in documentation of CarcCheck. If ,No' has been selected results will generally describe the hierarchy of controls and the relevance of technical solutions.	
☐ closed system ☐ automation ☐ containment ☐ general ventilation ☐ LEV ☐ using the carcinogen in a different form ☐ using different work methods ☐ other measures, please describe: _____	Result text

→ A result text will be generated

If 'I do not know, help me find out' was selected, the following text might appear: With your choice of Occupation and sector/branch it is likely that you/your worker is exposed to Carcinogens A. If substitution is not possible, a general description of the next measure in the hierarchy of controls will be generated and giving hints where to find ideas how to tackle the question for technical solutions

Question 4

Are organisational prevention measures in place?	
☐ Yes	☐ I don't know, help me find out
Explanation: Selection choice for ‚Yes' will be included in documentation of CarcCheck. If ‚No' has been selected results will generally describe the hierarchy of controls and the relevance of organisational solutions.	
☐ limitation of no. of workers (work plan) ☐ limitations of time of work ☐ spatial separation of work areas ☐ workplace cleaning protocol ☐ dedicated personal hygiene ☐ occasion-related or regular dedicated training ☐ others, please specify: _____	Result text
→ **A result text will be generated**	
If 'I do not know, help me find out' was selected, the following text might appear: With your choice of Occupation and sector/branch it is likely that you/your worker is exposed to Carcinogens A. If substitution is not possible, a general description of the next measure in the hierarchy of controls will be generated and giving hints where to find ideas how to tackle the question for technical solutions.	

Question 5A

Are limit values in place?		
☐ Yes, I am aware of the limit value(s)	☐ There is no limit value in place	☐ I don't know, help me find out
Explanation: Three selection choices discriminating between ‚Yes', ‚No' and ‚No knowledge'		
Result text, no further selection choices foreseen		
→ **A result text will be generated**		
If 'I do not know, help me find out' was selected, the following text might appear: With your choice of Occupation and sector/branch it is likely that you/your worker is exposed to Carcinogens A. For this carcinogen a Binding limit value exists. An overview of the corresponding national values can be found on the Roadmap website [link].		

Question 5B

Is exposure determined?	
☐ Yes	☐ No, what can I do?
Explantation: Selection choice for ‚Yes' will be included in documentation of CarcCheck. If ‚No' has been selected results will include hints how exposure can be determined.	
☐ non-measurement method ☐ measurement	Result text
→ **A result text will be generated**	
Hints how exposure can be determined will be included.	

Frage 6

Is personal protective equipment used?	
☐ Yes	☐ No
Erläuterung: Bei „Ja" Auswahl zu Dokumentationszwecken, bei „Nein" Hinweise zur Rangfolge der Schutzmaßnahmen (Liste noch nicht vollständig)	
☐ Gloves ☐ Goggles ☐ respiratory equipment ☐ protective clothing ☐ TBA ☐ TBA ☐ others, please specify: _____	Result text
→ **A result text will be generated**	
Explanation: Selection choice for ‚Yes' will be included in documentation of CarcCheck. If ‚No' has been selected results will generally describe the hierarchy of controls and the relevance of PPE (not yet exhaustive).	

Question 7

Further duties and additional helpful measures See next line	Are you aware of your rights and duties?	
Explanation: Q7 depends on the choice for the entry selection employer/worker		
→*Employer*	→*Worker*	
➢ performing risk assessment (mandatory) ➢ instructing and training (mandatory) ➢ documentation (mandatory) ➢ medical surveillance (mandatory) ➢ substance inventory (very helpful) ➢ external expertise (very helpful)	☐ Yes	☐ I don't know. What are my rights and duties? ➢ instructing and training ➢ documentation ➢ medical surveillance ➢ cooperation with employer ➢ follow operation instructions and hygiene plan
→ A result text will be generated		