

On 30th September 2023, the global community adopted the Global Framework on Chemicals (GFC)¹ in Bonn, Germany. It is a new and ambitious voluntary worldwide framework for chemical management aiming to achieve a planet free of harm from chemicals and waste. The GFC is the successor to the Strategic Approach to International Chemicals Management (SAICM).

The German research project, 'Roadmap to 2030'², aims to promote multi-stakeholder and multi-sector involvement in Germany through discussion of possible solutions to distinct challenges within existing policy initiatives. Three fields of action were identified which will be elaborated upon in sub-projects. All these sub-projects are in line with targets of the GFC – in particular the following two:

"Target D1 – By 2030, companies consistently invest in and achieve innovations towards advancing sustainable chemistry and resource efficiency, throughout the life cycle of chemicals."

"Target D2 – By 2035, Governments implement policies that encourage production, using safer alternatives and sustainable approaches throughout the life cycle, including best available techniques."

(1) The first sub-project, '**Defossilisation of the chemical industry**', focuses on the transition of this industry in Germany from fossil to renewable carbon sources.

These sources include, in particular, recycled materials, biomass (especially from waste), and carbon dioxide. Existing concepts and scenarios for defossilisation are evaluated, documented, adapted where necessary, and merged.

(2) The '**Alternative assessment**' sub-project is based on the ideas of „green chemistry“ and „inherently safe chemicals“. The aim is to promote the use of safe substances instead of using critical chemicals.

A methodological framework and tools are to be evaluated in order to place alternative testing for substance substitution on a scientifically widely accepted basis. The methods and tools should be structured as simply as possible so that substitution can succeed in practice in Germany and worldwide. To this end, preliminary work by

the chemical industry, the Federal Environment Agency and specialist organizations will also be considered.

(3) The third sub-project, '**Ecodesign / Digital Product Passport**', takes up some of the basic ideas from the EU Ecodesign Regulation.

An improved recyclability of products is particularly important for ecodesign. The digital product passport currently under development is suitable for achieving this, as it can be used to pass on the information required for recycling in the value chain. This product passport can also be an important source of information, particularly for the global division of labor. The recycling additives, which are becoming increasingly important for all relevant areas of application for recycled plastics, are to be specified as an example. A compromise will be sought between the legitimate confidentiality interests of the manufacturers of these additives and the information requirements of recyclers and consumers. Technical solutions for implementation and the use of AI are also included.

All three sub-projects include comprehensive dialogues with relevant stakeholders. The aim is to identify the most important prerequisites, obstacles and success criteria that will enable an ecologically sensible and economically viable chemical management.

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¹ <https://www.chemicalsframework.org>

² The research project is commissioned by the German Federal Environment Agency (FKZ: 3724 65 701 0)