High Level Summary Report

# Traceability of Chemicals in Products for a Non-Toxic, Resource-Efficient and Climate Neutral Circular Economy

## Policy Workshop for a Theory of Change


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# 1. Introduction

The EU Green Deal outlines a strategy that aims to transform the EU into a "modern, resource-efficient and competitive economy where there are no net emissions of greenhouse gases in 2050" (COM(2019) 640, p. 2). In the transition towards a resource efficient "clean and circular economy" (ibid, p. 7) that is capable of avoiding risk cycles of (legacy) substances of concern, enhancing management and control of chemical substances in materials and articles will be key: **Trustworthy traceability of chemicals[1] along supply chains is one central enabler for a non-toxic, resource-efficient and climate neutral Circular Economy.**

Policies implementing the Green Deal (e.g. Circular Economy Action Plan – CEAP, Chemical Strategy for Sustainability – CSS, Sustainable Products Initiative – SPI) directly or indirectly touch upon the issue of traceability. They are developed in parallel to each other, and it is challenging to anticipate the impact and interplay across policy fields. A thorough systemic understanding how the building blocks may work together in creating the required traceability of chemicals seems is therefore needed.

For that reason, the LIFE AskREACH project hosted[2] a workshop with invited decision-makers and experts from EU industry and trade associations (raw materials, technology, furniture, foreign trade), market leader brands (textiles and furniture), EU administration and MS competent authorities (Austria, France, Germany, Luxembourg and Sweden), NGOs (waste and environment), and research. The Workshop intended to create a clearer picture of how the Green Deal policy instruments can contribute to a (more) Circular Economy and, in particular, the role of traceability of chemicals as enabler in this respect.

**This document provides an ad hoc high level summary of the workshop and its results. A full report deepening the analysis is expected to be published in the third quarter of 2022.**

# 2. Three-Step Learning Process

During the 2 day workshop (31 May - 01 June 2022, Brussels) the participants (see section 4), first, agreed on a common vision for „Traceability of Chemicals in 2035" (1). Subsequently they identified policy instruments linked to the Green Deal and selected those they considered most relevant in terms of reaching the vision. For each instrument, the participants provided a definition as well as a description of the instruments' roles in the 2035 vision (2). The third step comprised the analysis of how the selected instruments influence each of the others (3).

It was not possible to complete the analysis during the workshop. The participants therefore completed the analysis as a „home assignment". On 17 June, the group met again virtually and discussed the results.

Methodically, the learning process combines elements of scenario building and Theory of Change, in an adapted, focused application on policies assessment.[3]

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1 Traceability of chemicals shall mean the capacity of companies to trace back chemicals present in products (e.g., in the IMDS automotive suppliers have to report material compositions of delivered car parts. The level of detail goes down to the level of single chemical substances).

2 Co-moderated by the research group sofia and BEF Germany.

3 For more details see the Theory of Change workshop report at Schenten et al. 2022, p. 3.

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## *(1) Common Vision for Traceability*

"In 2035: Established EU trustful, proportionate and efficient traceability schemes for chemicals to enable circular value chains[4] of articles ending up in final products[5], to the benefit of supply chains actors, end-users and authorities towards non-toxic, resource-efficient and climate neutral Circular Economy".

## *(2) Selection of Instruments*

Instrument means legislation and other policies, or elements thereof (e.g. specific tools, concepts, principles, mechanisms) that are already in place, drafted, planned or even not officially planned but reasonable to assume (= missing instruments).

This process step comprised three activities, i.e. brainstorming, clustering, and prioritization.

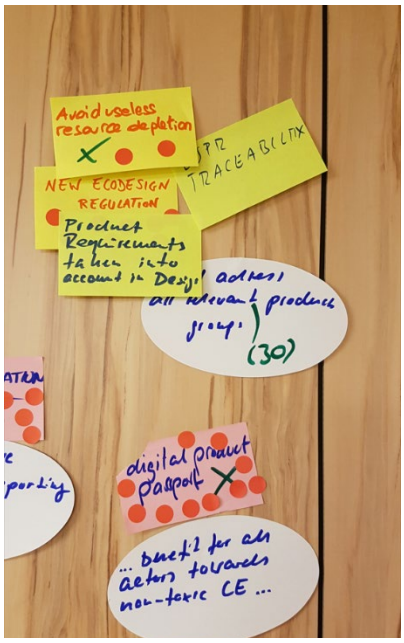


*Figure 1: Documentation of some selected instruments*

*Table 1: Identified instruments and their roles in 2035*

| *Instrument definition* | *Role in 2035 vision* |
|---|---|
| Enhanced Data Sheet (legal instrument) for substances and mixtures | Provides information on (almost) all substances, i.e. full ingredient lists. |
| Ecodesign for Sustainable Products Regulation (ESPR) product requirements | Delegated acts for the most relevant (30) product groups are in place. The requirements guide the design phase. |
| Phase-out of the most hazardous substances (via restrictions based on generic risk approach) | The sunset dates will have passed. Most companies are aware of the restrictions and of market chances related to compliance. Meanwhile new Substances of Concern (SoC) will emerge calling for continuous improvement. |
| SCIP (database for information on Substances of Concern In articles as such or in (complex) Products) | It will fulfil its originally foreseen tasks (inform End of Life - actors/consumers/authorities) and cover more SoC besides Substances of Very High Concern (SVHCs). |
| Capacity building (policy) | The competences in the sectors will have been built up (for the most part) and sector-specific support is readily available |
| Sector harmonized approaches / Standardization (CEAP: "harmonised tracking systems") | Sectors have established specific reporting approaches (based on common formats/rationales to allow for cross-sector reporting, see Proactive Alliance) |
| Digital Product Passport | Provides the information required to the benefits of value chains actors, end-users and authorities towards a non-toxic, resource-efficient and climate neutral Circular Economy. |

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4 The term circular value chains comprises "production supply chains", repair/maintenance services, and "End of Life" actors.

5 The term final products refers to complex objects (comprising more than one article), cf. ECHA 2017, 22.

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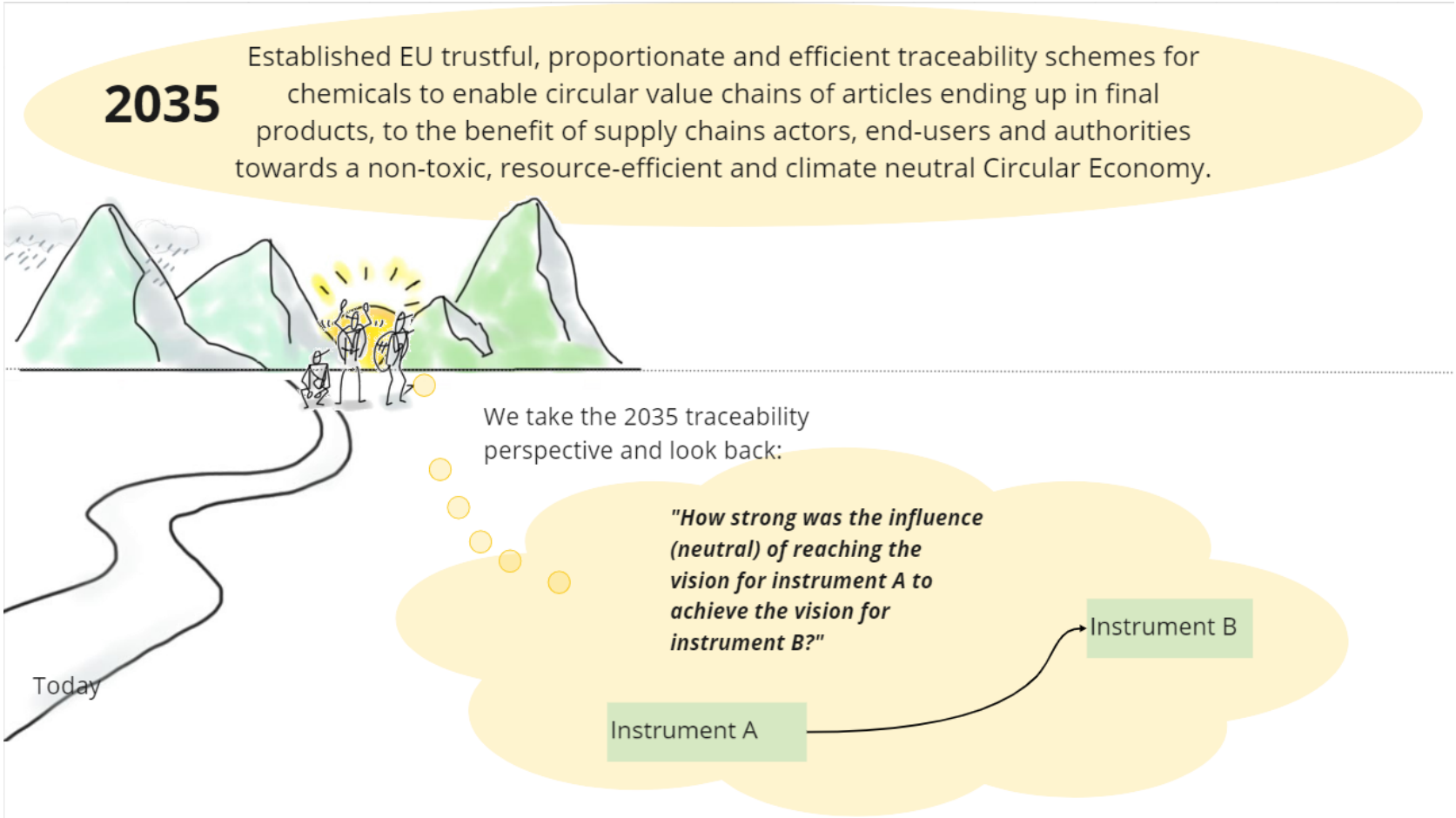


*Figure 2: Perspective of assessment (source of picture: https://www.pinterest.de/pin/127156389453818434/)*

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## *(3) Cross-Impact Analysis*

During the workshop, the participants discussed the interactions of the seven instruments in a cross-impact-analysis. An impact matrix helps to structure the discussion and to show the impact of one instrument in a row on the other instruments listed in the columns.

Figure 3 shows the matrix. The impact is described in four gradations: no influence at all (0), weak influence (1), moderate influence (2) and strong influence (3).

| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Instrument A | Instrument B | Instrument C | Instrument D | Instrument E | Instrument F | Instrument G | Row sum | **Impact direction** (Row sums / Column sums) |
| 1 | Instrument A | x | | | | | | | | |
| 2 | Instrument B | | x | | | | | | | |
| 3 | Instrument C | | | x | | | | | | |
| 4 | Instrument D | | | | x | | | | | |
| 5 | Instrument E | | | | | x | | | | |
| 6 | Instrument F | | | | | | x | | | |
| 7 | Instrument G | | | | | | | x | | |
| | Column sum | | | | | | | | | |

*Figure 3: Cross-impact matrix*

During the workshop, there were several relationships for which participants could not reach consensus. To manage these uncertainties not only one value was assigned, but instead a range of two values. This resulted in two scenarios for the impact matrix: Scenario 1 ("higher influence") gathers all higher values while Scenario 2 ("lower influence") gathers all lower values.

Dividing for each instrument the row sums (indicator for the influence of the instrument on the all others) by the column sums (indicator for how the instrument is influenced by all other instruments) shows the impact direction of instruments: The higher the value, the more an instrument can be seen as a driver for the "Traceability 2035" vision (highlighted blue in figures 4 and 5). The lower the value, an instrument is to be seen rather driven by the others (highlighted orange).

| 1st "higher influence" Scenario | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Enhanced Data Sheet | ESPR product requirements | Phase-out of the most haz subs | SCIP | Capacity building (policy) | Sector harmonization | Digital Product Passport | Row sum | **Impact direction** (Row sums / Column sums) |
| 1 | Enhanced Data Sheet | x | 2 | 3 | 2 | 2 | 1 | 2 | 12 | 1,33 |
| 2 | ESPR product requirements | 0 | x | 2 | 3 | 1 | 3 | 3 | 12 | 1,09 |
| 3 | Phase-out of the most hazardous substances | 0 | 2 | x | 2 | 1 | 1 | 1 | 7 | 0,54 |
| 4 | SCIP | 2 | 2 | 2 | x | 2 | 2 | 3 | 13 | 0,81 |
| 5 | Capacity building (policy) | 2 | 2 | 2 | 3 | x | 2 | 2 | 13 | 1,30 |
| 6 | Sector harmonized approaches / Standardization | 2 | 2 | 2 | 3 | 2 | x | 3 | 14 | 1,17 |
| 7 | Digital Product Passport | 3 | 1 | 2 | 3 | 2 | 3 | x | 14 | 1,00 |
| | Column sum | 9 | 11 | 13 | 16 | 10 | 12 | 14 | | |

*Figure 5: Impact Matrix Scenario 1*

| 2nd "lower influence" Scenario | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Enhanced Data Sheet | ESPR product requirements | Phase-out of the most haz subs | SCIP | Capacity building (policy) | Sector harmonization | Digital Product Passport | Row sum | **Impact direction** (Row sums / Column sums) |
| 1 | Enhanced Data Sheet | x | 2 | 3 | 1 | 0 | 1 | 2 | 9 | 1,13 |
| 2 | ESPR product requirements | 0 | x | 2 | 2 | 1 | 3 | 3 | 11 | 1,10 |
| 3 | Phase-out of the most hazardous substances | 0 | 1 | x | 2 | 1 | 1 | 1 | 6 | 0,50 |
| 4 | SCIP | 2 | 2 | 1 | x | 2 | 2 | 3 | 12 | 0,92 |
| 5 | Capacity building (policy) | 2 | 2 | 2 | 3 | x | 2 | 2 | 13 | 2,17 |
| 6 | Sector harmonized approaches / Standardization | 2 | 2 | 2 | 3 | 1 | x | 3 | 13 | 1,18 |
| 7 | Digital Product Passport | 2 | 1 | 2 | 2 | 1 | 2 | x | 10 | 0,71 |
| | Column sum | 8 | 10 | 12 | 13 | 6 | 11 | 14 | | |

*Figure 4: Impact Matrix Scenario 2*

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## 3. First Indicative Results

The cross-impact-analysis shows, in both scenarios, that **capacity building** policies and **sector harmonised approaches** (towards traceability) are the strongest drivers to reach the „Traceability 2035" vision. The **enhanced data sheet** also scores comparatively high, i.e. an instrument that apparently is not yet considered in current Green Deal policies.

The **Digital Product Passport**, in contrast, the participants do not see as a driver but rather to be driven by other developments.

Another interesting finding is that all organisations participating in the workshop, i.e. representing many different interests and sectors, agree that traceability of chemicals is a key enabler for the circular economy. The Workshop identified relevant (missing) instruments and created specific **theories of change** for this transition.

These insights are relevant for policy-makers and industry when assessing strategies and measures.

## 4. List of Participating Organisations

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|---|
| amfori – Trade with Purpose |
| Baltic Environmental Forum Germany |
| BUND e.V. (Friends of the Earth Germany) |
| City of Stockholm (Environment Department) |
| Darmstadt University of Applied Sciences |
| EFIC (European Furniture Industries Confederation) |
| Eurometaux (European non-ferrous metals association) |
| European Commission (Safe and Sustainable Chemicals, ENV.B.2) |
| Hazardous Waste Europe |
| IKEA of Sweden (as member of EuroCommerce) |
| Inditex S.A. |
| Luxembourg Institute of Science and Technology (LIST) |
| Ministère de la Transition Écologique (Direction Générale de la Prévention des Risques) (France) |
| Orgalim - Europe's technology industries |
| Republic of Austria, Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology (Department V/5 – Chemical Policy and Biocides) |
| RISE Research Institutes of Sweden |
| Swedish Chemicals Agency |
| Umweltbundesamt (German Environment Agency) |
| VDM (Association of the German Furniture Industry) |

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