

Advancing safer substitution: lessons learned

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Advancing safer substitution – multiple perspectives.....



Education and Basic R&D



Supply chain needs and applications and innovation policy

Adoption in industry, particularly SMEs



Building multi-disciplinary science and practice



Key needs to support safer substitution

- Consistent frameworks/data/tools for evaluating alternatives
- Support for assessment/adoption/collaboration
- Research on new alternatives
- Policy incentives and drivers linked to development and adoption of safer substitutes


Frameworks/Tools/Data to support Safer Substitution

- Need consistent framework/steps to consider in the alternatives assessment process
- Need to fill in data gaps, particularly in hazard and exposure potential information
- Need improved methods for evaluating lifecycle impacts, performance, and for decision-making
- Need tools to translate data to „actionable“ information.

OECD Substitution and Alternatives Assessment Tool Selector

The Tool Selector is designed to provide information on tools that can be used in conducting chemical substitutions or alternatives assessments. The filters below may be used to identify tools of greatest relevance to your substitution or alternatives assessment goals. You may also view more in-depth information on each tool, or a side-by-side comparison of a set of tools, by selecting two or more tools from the list below.

All tools included in the Tool Selector address chemical hazard assessment, and may address other comparative attributes.

Tools that contain a repository of organized information but do not have a mechanism for data manipulation for outside users are flagged below as data sources using the following symbol: 

For information on tools with a primary focus on non-hazard comparative attributes such as cost/benefits and availability, life-cycle impacts, and materials management, please visit the [Inventory of Non-Hazard Assessment Tools](#).

Each tool has its benefits and limitations. The user of this toolbox needs to understand the capabilities of the tools to make the most informed decisions about conducting alternatives assessments.

What's an Alternatives Assessment Tool?

A tool is an approach for evaluating a chemical, material, process, product, and/or technology for attribute analysis within a chemical substitution/alternatives assessment.



The screenshot shows the SUBSPORTplus website. The header includes the logo and navigation links: REGULATIONS, SUBSTANCES, CASES, PROCESS, GOOD PRACTICE. The main content area features a large banner with the text "Welcome to SUBSPORTplus, the Substitution Support Portal!" and a sub-header "The Portal offers you information supporting your efforts in substituting hazardous substances and assisting you to find your way to safe alternatives. Once exploring the portal, and please do not hesitate to contact the project team for any comments or questions." Below the banner are three news items:

- 2020 Virtual A4 Symposium - Safer Alternatives** - FIND OUT MORE
- BAuA-report: Survey on alternatives for in-can preservatives for varnishes, paints and adhesives** - FIND OUT MORE
- OECD report: PFAS and Alternatives in Food Packaging (Paper and Paperboard)** - FIND OUT MORE

Supporting safer substitution

- Adoption is complex and requires research and technical support – challenges even greater for SMEs
- Must consider potential health and safety or other trade-offs at adoption phase
- Need ways to connect supply chain actors in demonstration and understanding technical needs
- Where alternatives are not available, support for R&D is critical

Promoting Safer Alternatives – The MA Toxics Use Reduction Institute

Train professionals on chemical hazard, performance and cost assessment
Provide tools - P2OASys (www.turi.org/p2oasys)

Create supply chain partnerships to solve common toxics challenges

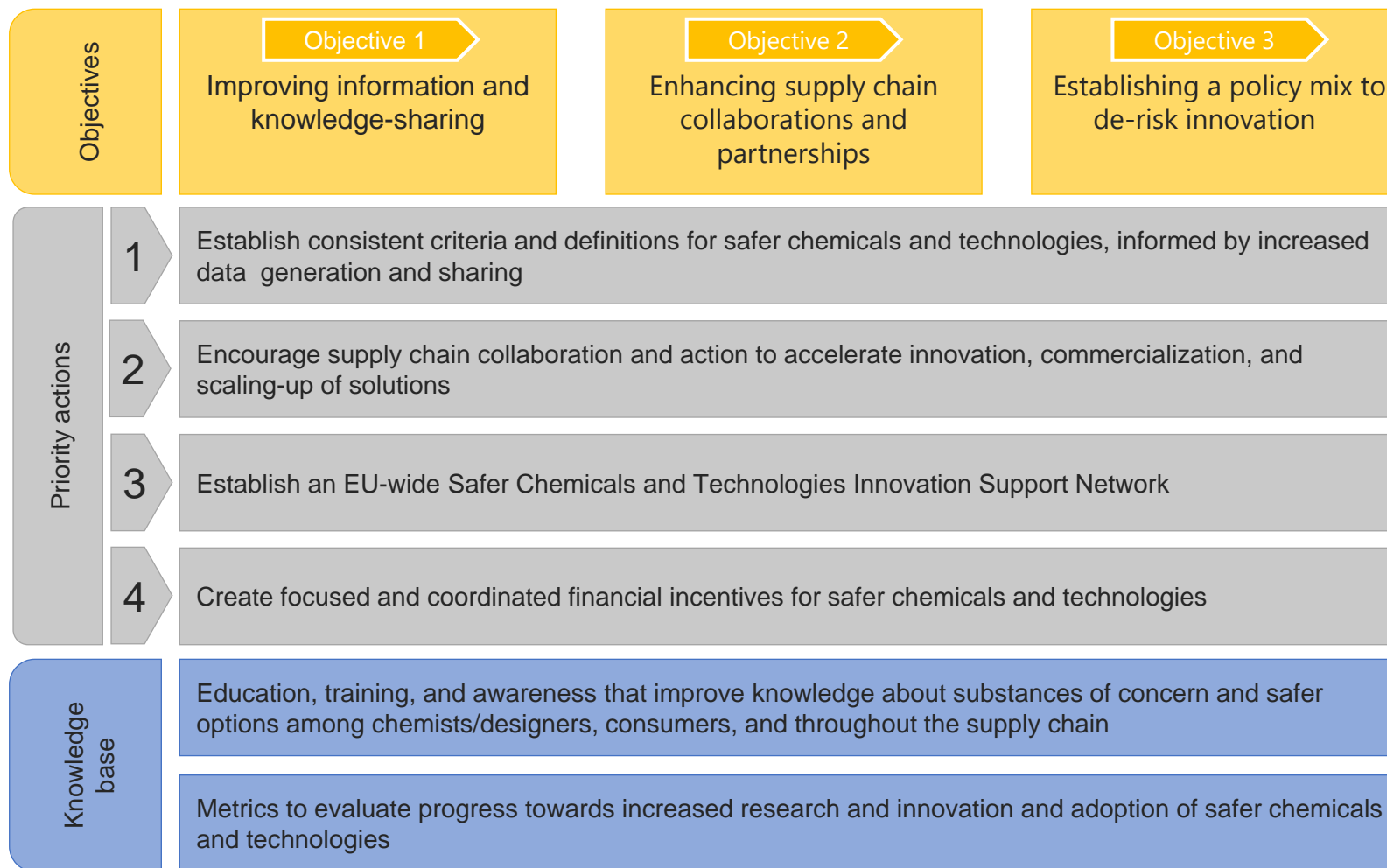
Evaluate alternatives to common uses of toxic chemicals

Fund research on and adoption of safer, effective and affordable alternatives to toxics



www.turi.org

Transition to Safer Chemicals and Technologies



Wood and LCSP: Chemicals Innovation Action Agenda, 2019

<https://publications.europa.eu/en/publication-detail/-/publication/2d7fc4d1-96f6-11e9-9369-01aa75ed71a1>

Ensuring supportive policy

- Need clear and consistent signals to the marketplace (regulatory or market-based) on the chemical functions/classes/applications of concern to provide early indications of the need to substitute/innovate and mandates to thoughtfully evaluate alternatives.
- Drivers must be supplemented by sufficient and sustained funding, infrastructure, and infrastructure to support the development and adoption of safer alternatives

Thank You!

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For more information, visit:

Green Chemistry & Commerce Council (GC3) | www.greenchemistryandcommerce.org

Association for the Advancement of Alternatives Assessment (A4) | www.saferalternatives.org

Toxics Use Reduction Institute (TURI) | www.turi.org