

Future raw materials and products

The Chemical Industry Federation of Finland aims to be climate neutral by 2045. To meet this target, it is crucial to discover alternative raw material sources to replace current virgin fossil raw material streams. So-called raw material revolution will be necessity and therefore it will be vital to develop legislation that promotes the use of new raw material sources like bio- recycled and CCU-based materials to substitute virgin fossil raw materials in chemical industry products. Below is a list of the CIFF policy recommendations to support this objective.

Focus	Life-cycle stage(s)	Measure
Regulatory measure(s) targeting chemical and plastics feedstock	Upstream production	- Mandatory targets for the use of non -virgin -fossil feedstocks on chemical industry level Example: Dutch proposal for an EU Industrial Sustainable Carbon Regulation reflecting the implementation of Renewable Energy Directive (RED) in the energy sector
Regulatory measure(s) targeting chemical and plastics products	Upstream and/or product stage	- Mandatory targets for the use of non- virgin-fossil carbon in intermediate products under the ecodesign of sustainable products regulation (ESPR) Example: ESPR for monomers and BTX - Mandatory targets for the use of non-fossil carbon in end-use product(s) under the EU eco-design of sustainable products regulation (ESPR) & other sectoral Legislations Example: Recycled content requirements for plastics packaging
Regulatory options to introduce a carbon price for embedded fossil carbon	Upstream /Final products/ End-of-life	- Carbon price on GHG emission from waste management of fossil carbon Example: Current EU ETS - Carbon price on use of fossil-based carbon (or virgin-fossil-based carbon) in chemical and plastic production (upstream intermediate products) Example: Current EU ETS - Carbon price on use of virgin fossil-based carbon in end-use products that contain plastics or chemicals (downstream end-use products) Example: Existing EPR schemes for waste and water pollutants.
Regulatory measure(s) to introduce binding targets for carbon removals in products	Final products	- Binding targets for carbon removals in products Example: Targets could be set for carbon removals in products as a contribution to meeting the EU's climate targets. Member States could be obligated to reach certain targets for carbon removals in products or EU

		wide-targets for carbon removals could be introduced in sectoral legislation, e.g. for buildings.
Economic instruments at EU level	Upstream / Final products	- Contribution by Member States to the EU budget based on the fossil carbon consumed in materials Example: EU plastics levy works in a similar manner - Reduce VAT rates for plastics and chemical products based on non-fossil carbon Example: See Annex III of EU VAT Directive
Sustainability		- Binding sustainability criteria defining the eligibility of non-fossil and non-virgin-fossil raw materials based on RED III
Calculation methods		- EU harmonised chain-of-custody (e.g. mass balance) methods may be required to allocate inputs to final products
Certifications		- Framework for approving different voluntary certification schemes based on RED III (verifying the sustainability and traceability according to the set calculation methods)
Carbon leakage		- Possible carbon border adjustment mechanism designed depending on policy option
Permitting		- Environmental permits: speeding up the authority processing times and the appeal processes.
Critical raw materials (CRMA)		- Better regulation is needed. Unnecessary contradictory and overlapping regulation should be eliminated. This is especially relevant for critical raw materials. Example: Finland has introduced a new mining tax. The tax has not yet been collected even once. However, it has been already raised twice.
LCA and calculation methods	Upstream /Final products/ End-of-life	Clear and comprehensive greenhouse gas calculation methods and logic is needed and especially when calculating renewables (+1 / -1). The existing standardization should be considered before creating new legislation. Example: It would be beneficial to utilize existing standardization, such as the EN18027 instead of creating new LCA regulation for calculation rules.
End of waste and by-product status		There are a lot of requirements for reaching the "end of waste" or "by-product" status. For example, the use of these products has to be available and the markets have to exist. These have to be verified before being able to apply for the status. These requirements create problems as the products have to be tested thoroughly before the acceptance by customers. Legislation should allow test runs and manufacturing under a simplified permit. This would make it easier to demonstrate evidence of market / demand and facilitate new material use.