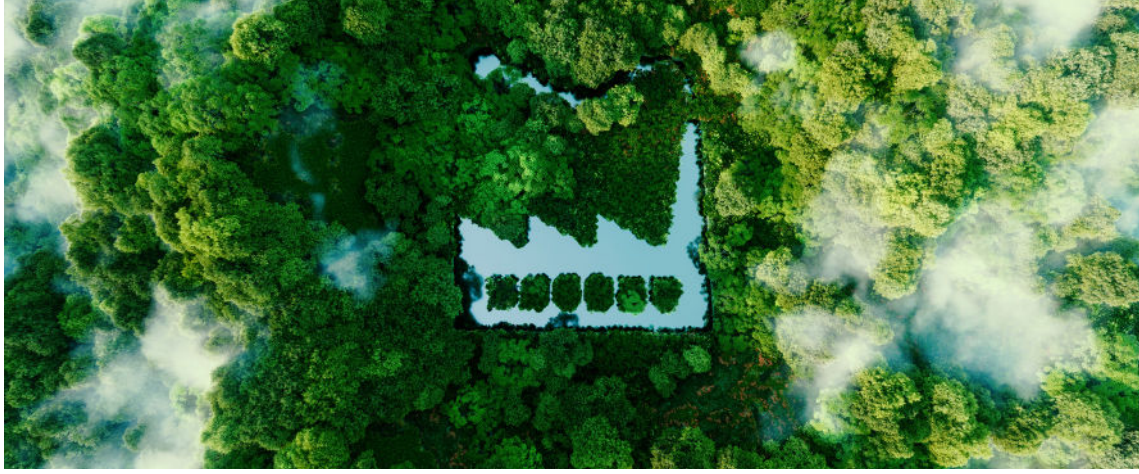
SNF
WATER SCIENCE



# SNF RESPONSIBLE CHEMISTRY POLICY

SNF's mission is to develop, produce, and market solutions to preserve or recycle water while reducing energy consumption during usage and, consequently, its related CO2 emissions.

Through its environmental commitments, SNF Research and Development (R&D) is focused on developing new - or enhancing existing - solutions and innovating toward more sustainable products, technologies, and applications.

The SNF Responsible Chemistry (RC) policy has been set up to emphasize the importance of eco-design and establish guidelines to conduct our research and development activities and screen projects based on their impacts on one or several of our five SNF RC pillars:

## COMMITMENT & COMPLIANCE

**Ensure that raw materials, intermediates, final products, and process technology comply with existing or reasonable future regulations and the customers' vision, minimizing impact on any environmental aspects.**

- Establish and update scientific, technological, and competitive intelligence.
- Bring the eco-design upfront by directly considering the potential end-of-life of the product when starting a new project to comply with the safe and sustainable-by-design directive.
- Minimize the use of hazardous substances and replace them, when possible, with less harmful alternatives in compliance with regulations.
- Evaluate our product's carbon footprint and identify opportunities for its reduction.
- Perform life cycle analysis comparisons between existing products and newly developed ones.

## BIOBASED & RENEWABLE RAW MATERIALS

**Incorporate well-defined sustainable raw materials in our polymers, lowering their environmental footprint.**

- Maintain, expand, and promote our ISCC+ certification.
- Identify and contact suppliers to promote sustainable solutions.
- Use well-defined sustainable raw materials from biomass and circular feedstocks, ensuring they do not negatively impact any environmental or social aspect.
- Increase the sustainable share in existing products.
- Expand our understanding and use of appropriate white biotechnology for new raw materials and catalysts opportunities.

## ENVIRONMENTALLY-FRIENDLY PROCESSES

**Reduce the environmental impact of our products and processes.**

- Anticipate the end of life by enhancing the biodegradability behavior of the products by mastering macromolecular engineering.
- Promote soft chemistry and atom economy.
- Study processes to reduce energy consumption and recover fatal heat.
- Lower water consumption and promote high-concentration products.
- Reduce waste and by-product generation and promote their reuse.
- Recycle/reuse water and solvents when possible.

## WATER & $CO_2$ EMISSIONS

**Ensure that our products will assist in preserving natural resources and energy and reduce the application's carbon footprint during use.**

- Develop strategies to reduce the carbon footprint while increasing the handprint (dosage, product selection, use method, etc.)
- Evaluate the benefits (Handprint) of using our solutions regarding energy reduction, water preservation, and carbon footprint reduction.

## ENVIRONMENTAL FATE OF POLYMERS

**Learn, evaluate, understand, and improve the fate and behavior of our polymers in the environment.**

- Study and understand the biotic and abiotic mechanisms able to degrade polymers.
- Understand the structural parameters, allowing a better biodegradation of the polymers.
- Conduct biodegradation studies during the development phase.
- Develop products with improved biodegradation profiles by enhancing their degradation kinetics and percentage of biodegradation concerning time and conditions.

The commitment and involvement of the R&D through implementing the eco-design concept and practice is essential to lower both SNF and its customers' environmental impact. The R&D is backed up by a solid open innovation policy setting up bonds with academic and industrial partners to entertain our scientific culture.

The R&D digitalization is the key accelerating the innovation process to develop faster and more efficiently new polymers. This is going through the electronic laboratory notebook, the data collection and analysis, the use of machine learning and the experiments automation to quickly screen structures and properties.



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