

## The importance of oleochemistry on the path to climate neutrality

Climate change and environmental degradation are an existential threat to Europe and the world. The green transition means a shift towards economically sustainable growth and an economy that is not based on fossil fuels and overconsumption of natural resources. Through the European Green Deal, the EU is committed to becoming **climate-neutral by 2050** while leaving no one behind. APAG (Oleochemicals Europe) supports the European Green Deal and wants to help make it a reality.

In order for Europe to achieve its goals in and position itself at the forefront of global bioeconomy, we need to reduce the use of and reliance on fossil fuels and increase the use of bio-based products. This approach will also strengthen EU's Open Strategic Autonomy.

The oleochemical industry is one of the **oldest parts of Europe's bio-based economy, making valuable use of by-products from other industries such as food and meat processing and papermaking. Oleochemicals are bio-based chemicals** made mainly from **renewable plant oils and animal rendered fats category 3**, serving as additives that enhance the recyclability of several products. They serve as **sustainable alternatives** to fossil-based chemicals, contributing to a greener future.

Using high-volume plant oils and side-stream from other industries and by enabling recycling for bio-based products, the oleochemistry is a crucial enabler of the Circular Economy and key player of the EU Green Deal (or bio-based economy).

## Oleochemistry and its role in achieving green transition

### 1. Unique applications of oleochemicals

Oleochemicals have **remarkable properties** and are **versatile building blocks** found in various applications. They are used as raw materials or intermediates in, for example, plastic additives, paints and coats, surfactants, detergents, personal care products, lubricants, animal feed, candles and pharmaceuticals.

For example, oleochemicals play a key role in the production of surfactants: they are essential ingredients in personal care products as they are responsible for the cleaning, foaming, emulsifying, or conditioning performances.



## 2. Oleochemicals' role in green transformation

Oleochemicals provide **safe and environmentally-friendly alternatives** to fossil-based chemicals. The oleochemical industry uses **renewable feedstocks** such as rendered animal fats cat. 3 and vegetable oils. The ongoing research and innovation further facilitates the **development of new and more sustainable building blocks**.

## 3. Oleochemicals and their contribution to bioeconomy

The implementation of **bio-based economy principles** is an important step towards cutting Greenhouse Gas (GHG) emissions in Europe and achieving climate neutrality by 2050. **APAG fully supports the European bioeconomy** and our members have been pioneers of biorefining. Oleochemistry **keeps renewable raw materials in the loop** and reduces GHG emissions.

## 4. Oleochemicals and their impact on circular economy

**APAG sees itself at the centre of Europe's circular economy.** The oleochemical industry is an enabler of the circular economy making valuable use of by-products from other industries such as food and meat processing and papermaking. Additionally, oleochemical products serve as additives – e.g. for paper applications – that enhance the recyclability of several products. Using high-volume plant oils and side-streams from other industries and by **enabling recycling for bio-based products**, the **oleochemistry is a vital part of the circular economy**.

## 5. Oleochemicals as a part of green chemistry

There is a growing need to replace fossil-sourced small molecules with bio-sourced molecules and, also to create new biobased molecules with identical or different properties using green innovative technology. **Oleochemistry aligns with the principles of green chemistry**, emphasizing the use of environmentally benign processes and reduced waste generation. Oleochemicals are typically biodegradable and decompose in the environment without causing pollution.

## Oleochemicals as key enablers of the green transformation

**APAG positions itself as a key driver of the green transformation.** For a continued contribution of the European oleochemical industry to a sustainable and competitive Europe, APAG underlines that the access to feedstock is crucial. As an unintended consequence of the EU renewable energy policy, valuable raw materials are being burnt to generate subsidized energy or used under incentives to produce biofuels. This is a significant threat to the availability of our key feedstock, which is why APAG call for the **undistorted access to bio-based raw materials**, enforcement of the **principle of cascading use of resources**, **promotion of bio-based products (market – pull)**, and a **simplified regulatory framework**.

