

Solvay Challenges 2023

In 2022, Solvay launched a **Renewable Materials and Biotechnology growth platform**, dedicated to developing innovative and sustainable solutions for a range of markets, using renewable feedstocks and biotechnology. The company is already a market leader in some bio-based products, including guar, bio-sourced solvents and natural vanillin. The three aspects of the value chain are addressed: (a) sustainable sourcing of raw materials, (b) adoption of conversion technologies with lower environmental impact, and (c) responsible management of product end-of-life.

Within Eureka investment readiness Programme, in 2023 Solvay is launching two challenges for SMEs/startups. Both are addressing the end-of-life aspect of the growth platform. Participating at this joint online session will allow SMEs/startups to discover how Solvay currently engages with startups and the new challenges. Companies will have the opportunity to raise questions around those challenges and will be invited to apply and present their solutions. Based on the applications received, a select number of startups will be invited to a one-to-one meeting with Solvay.

Solvay's 2023 Challenges

Title	Description	What Solvay is looking for
Upcycling of end of life complex polymer mixtures	How to valorise end of life complex advanced materials (containing fillers, fibers,...) without or with minimum separation	We are looking for technologies that allow the upcycling of complex mixtures of polymers that are difficult to separate. The generated products could be used in the same initial application or in new ones, with or without further transformations. Sustainable and innovative technologies will be key!
Breaking the Biodegradability / Stability trade-off for polymers in liquid formulations	With the increasing focus of regulatory authorities on ensuring a pollution free environment, polymers in liquid formulations that end up in different environmental compartments are under heavy scrutiny. It is necessary to develop biodegradable products that rapidly degrade in the environment through the action of microorganisms (biodegradation) without compromising on cost, performance and stability in final formulations. The latter is particularly challenging as ready biodegradability (a highly desired property) often comes with a loss of stability	Water soluble or water dispersible functional polymer technologies that are able to match the cost and performance of widely used acrylate polymeric formulation ingredients but which are readily biodegradable (OECD301) and stable in aqueous based formulations over at least 2 years at room temperature across a wide pH window (from acidic to basic depending on the targeted final application type).

Who can present solutions?

- 1) SMEs/Start-ups from the cleantech sector
- 2) from any Eureka country: Albania, Austria, Belgium, Bosnia and Herzegovina, Bulgaria, Canada, Chile, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Latvia, Lithuania, Luxembourg, Malta, Monaco, Montenegro, North Macedonia, Norway, Poland, Portugal, Romania, San Marino, Serbia, Singapore, Slovakia, Slovenia, South Africa, South Korea, Spain, Sweden, Switzerland, The Netherlands, Türkiye, Ukraine, United Kingdom. Please note that only companies from these countries can apply!!
- 3) at TRL >3 (POC done) - with real applications - with some references