

Jan.
2026



Funded by the European Union under the GA no 101091842. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or HaDEA. Neither the European Union nor the granting authority can be held responsible for them.

PROPLANET

Enhanced Safe and Sustainable coatings for supporting the Planet

THIRD PRESS RELEASE

PROPLANET Project Launches Free Online Tool to Accelerate Transition to PFAS-Free Coatings

Open-source Replication Tool provides manufacturers, researchers and policymakers with access to sustainable coating alternatives for glass, metal and textiles

The PROPLANET consortium today announced the launch of the **PROPLANET Replication Tool**, a free, open-source web application that makes innovative PFAS-free coating technologies accessible to industry and researchers worldwide. The tool addresses growing concerns about per- and polyfluoroalkyl substances (PFAS), known as “forever chemicals,” which persist in the environment and pose potential health risks.

For decades, PFAS compounds have been the go-to solution for coatings requiring water and oil repellency,

used across industries from textiles and packaging to construction and consumer goods. However, mounting evidence of their environmental persistence and bioaccumulation has prompted regulatory action across Europe and beyond. Many manufacturers now face the challenge of finding viable alternatives that can match PFAS performance without the associated risks.

The PROPLANET Replication Tool directly addresses this challenge by providing information on the impact of PFAS-free coating formulations developed specifically for glass, metal, and textile applications. Users can explore different formulations, compare their properties and performance characteristics, and explore both environmental fate and safety-related considerations. The tool is designed for accessibility—requiring no specialised software or

Name	Min Proportion	Max Proportion	Lung Deposition	Performance	Carbon Atoms	Add Compounds
No compounds selected Click the "Add Compounds" button above to get started.						





technical background to navigate—while also offering full source code access for advanced users who wish to adapt or build upon the work.

“We wanted to ensure that the knowledge generated through PROPLANET reaches everyone who needs it,” said the coordinator of the project Johannes Seif, PhD (IDENER). “By making this tool open-source and freely available, we’re not just sharing research findings—we’re actively supporting the industry’s transition to safer, sustainable coating solutions.”

The tool represents the culmination of extensive research and development conducted by the PROPLANET consortium, which brings together 13 partners from across Europe, including research institutions, industry partners,

and technology providers.

The launch comes at a critical time, as the European Union moves forward with restrictions on PFAS substances under REACH regulations. Industry stakeholders, particularly small and medium enterprises, have expressed concern about finding practical alternatives within regulatory timelines. The PROPLANET Replication Tool offers a concrete resource to support this transition.

“This isn’t just about compliance,” added the project’s technical lead Fabiola Brusciotti, PhD. “It’s about demonstrating that high-performance coatings don’t have to come at the expense of environmental and human health. The alternatives exist, and we’ve made them as accessible as possible.”

The PROPLANET Replication Tool is available now at <https://proplanet.idener.ai>. The project has also made the source code of the different components available on GitHub at [PROPLANET Replication Tool \(Idener\)](#), [SimpleBox4Planet Module \(NovaMechanics\)](#), [Lung Deposition Module \(NovaMechanics\)](#) and [Optimisation Procedure Module \(University of Málaga\)](#). RINA-CSM used first-principle simulations to investigate the materials at molecular level and developed a model to assess the potential performance of the coatings with the help of experimental data provided by [TECNALIA](#). The data used for the safety assessments have been obtained from the ECHA database, assembled and provided by NILU, which also defined the methodology for the safety assessment (based on Risk Characterisation Ratio (RCR) calculation), and the RCR-based traffic-light system implemented in the PROPLANET database.

About PROPLANET

PROPLANET is a 3-year collaborative research project funded under the European Union’s Horizon Europe program [Grant Agreement No. 101091842]. The consortium comprises 13 partners from 8 countries working to develop safe and sustainable by design alternatives to PFAS-containing coatings. For more information, visit the [website](#).



