PROPLANET

Enhanced safe and sustainable coatings for supporting the planet

Deliverable D.7.10
Communication & Dissemination Plan

Deliverable Information

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Executive Summary

The aim of this deliverable is to coordinate activities and establish solid planning aiming at the effective communication of project objectives, outcomes, and impact to target audiences, ensuring maximum visibility and engagement, as well as the targeted dissemination of the project results.

The deliverable highlights the importance of a robust dissemination and communication strategy to connect project implementation with its intended beneficiaries. It outlines key considerations and presents a comprehensive plan to promote project awareness, knowledge sharing, and stakeholder involvement. The document starts by emphasizing the need for clear communication goals, identifying target audiences, and tailoring messages to their specific needs. These messages have been updated with a deeper focus on the project's specific objectives. The PROPLANET consortium acknowledges the diverse nature of stakeholders and proposes a multi-faceted approach, using both online and offline channels to reach them effectively.

To facilitate communication efforts, the deliverable details various communication tools and tactics, including digital platforms, social media, newsletters, press releases, and the dedicated project website. It advocates for creating engaging content such as videos and infographics to capture the attention of target audiences and convey project achievements accessibly.

In terms of dissemination efforts, this deliverable includes all activities related to attendance to major conferences, workshops and trainings, as well as networking activities. Recognizing the power of collaboration, the deliverable underscores the importance of engaging with relevant organizations, policymakers, industry experts, and the media. It proposes strategic partnerships and networking opportunities to amplify the project's reach and influence, fostering ownership and long-term sustainability. Clustering activities are progressing during the project implementation.

In parallel, the deliverable places a strong emphasis on monitoring and evaluation, outlining key performance indicators to assess the effectiveness of the communication strategy. It recommends regular feedback loops and adaptability to enable continuous improvement and ensure communication efforts align with project objectives.

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Table of Abbreviations

Abbreviation	Definition
CSA	Coordination and Support Action
D&C	Dissemination and Communication
DX.X	Deliverable number X.X
EMMC	European Materials Modelling Council
GA	Grant Agreement
KPIs	Key Performance Indicators
PFAS	Per- and polyfluoroalkyl substances
QSAR	Quantitative Structure-Activity Relationship
RIA	Research hand Innovation Action
SMEs	Small Medium Enterprises
SSbD	Safe and Sustainable by Design
TBD	To be defined

1. Introduction

This Deliverable is linked with Work Package 7: “Exploitation, Dissemination, Communication and Social Engagement”, led by EXELISIS. This report outlines our comprehensive strategy to effectively disseminate and communicate the innovative research, outcomes, and advancements achieved in the development of novel coating solutions. The PROPLANET project is dedicated to addressing the critical challenge of substituting per- and polyfluoroalkyl substances (PFAS) in various industries, including textiles, food packaging, and glass applications. By focusing on sustainable coating alternatives, the PROPLANET’s aim is to contribute to a more environmentally friendly and safe future.

The dissemination and communication plan detailed in this deliverable is crafted to maximize the impact and reach of the PROPLANET project. This deliverable provides a comprehensive overview of our communication and dissemination objectives, target audiences, and the various channels and tools we will use to effectively share project-related information. The past dissemination activities finalised by the PROPLANET consortium are presented herein. These include publishing scientific papers, participating in conferences and workshops, training activities, engaging with relevant industry associations, and collaborating with strategic partners.

To effectively communicate the project's objectives and outcomes, a variety of communication channels was employed. These include printed materials, newsletters, press releases, TV interviews, using social media platforms and the project website. Social media and website analytics support the monitoring of reached audiences.

By employing different tools and approaches, the aim is to engage diverse audiences and maximize their involvement in the project, ensuring a broad and impactful dissemination of PROPLANET’s work.

2. Communication and dissemination strategy

2.1. Communication and dissemination objectives

The primary objective of communication and dissemination activities is to maximise the impact the project results can make by sharing them with specific target audiences, including academia, stakeholders, industry, policy makers, and wider public, among others.

Dissemination aims to achieve several goals: i) provide information and educate the community, ii) engage the community in project activities, and iii) promote the project's results. Communication activities focus on raising awareness among the broader public, including the media. It is crucial to convey the project's objectives and expected outcomes in non-technical language to ensure easy understanding by the audience. The messages should be clear, concise, and tailored to the specific recipient(s).

In the context of PROPLANET, specific tools will be implemented to expand the target audience and increase engagement with the project's progress and advancements. These tools and channels include the visual identity (logo, colours, fonts, templates), the project website, leaflets and flyers, social media platforms, videos, press releases, newsletters, and more. Dissemination actions involve participating in or organizing workshops, conferences, training sessions, and clustering interviews/meetings.

The next section of the deliverable outlines the target audiences and stakeholders who will be reached through these communication and dissemination efforts. Additionally, knowledge transfer and open discussions within the cluster will facilitate the drafting of a roadmap for participation in joint activities and research initiatives, among other collaborative endeavours.

2.2. Communication and dissemination planning and KPIs

This section provides an overview of communication and dissemination planning, emphasising its importance in effectively sharing information and engaging stakeholders. It covers key tools and activities as well as expected Key Performance Indicators (KPIs). The overall goal is creating a dissemination strategy through using the appropriate channel to engage stakeholders, monitoring and evaluating impact, and fostering collaborations. By providing a comprehensive understanding of communication and dissemination planning, this section serves as a guide to effectively plan and implement strategies for sharing project information, maximising impact, and achieving project goals.

Table 1. Dissemination and Communication planning and KPIs.

Actions	Description	Target KPI	Reached KPI
Visual identity	A logo will be designed at the beginning and a design chart will be derived, so that the targeted audiences will recognise a distinct brand	M3, Designed and used in all materials	Done
PROPLANET website	The website will contain general information of the project and current research activities, access to the dissemination material and public deliverables, and information about presence in conferences, industrial fairs and exhibitions and social media.	Updated regularly 30 visits/day 10 downloads/day	Updated regularly 3700 views

Leaflet/Brochure	The main elements of PROLANET will be summarised in a leaflet to be disseminated in conferences, industrial fairs and day-to-day professional activities of the partners	1 trifold by M3 120 leaflets distributed in conferences and exhibitions	1 tri fold finalised 200 leaflets distributed
Poster	M6, aiming at project's awareness; M24 and M44, for transferability and exploitation of results	By M3, Displayed in several dissemination events	Done
Roll-up	Designed to capture attention and deliver key messages effectively.	1 roll up by M3	Done
Newsletter	Available on website and announced on "LinkedIn Newsletter"	2 Newsletters / year	Newsletter 3 released
Press releases	Intermediate results and most important milestones will be communicated to key media actors	At least 3 press releases	1 press release (in English and Spanish)
Social media	Presence in LinkedIn, Facebook and Twitter	Weekly posts	On track
Video	One during year 1 to promote the project	1 video	1 video released 3 infographic videos by HOLOSS
Events	Participation in conferences and industrial fairs	- 17 conferences - 3 international exhibitions	12 conferences 1 expo
Workshops	Organise online or physical workshops aiming to facilitate knowledge sharing, interaction, and engagement with the target audience.	2 national and international workshops	TBD
Publications	peer-reviewed, open access publications	12 articles submitted	2 Publications, 1 OA so far (embargo period) Plan defined
Clustering activities	Co-organised workshops or webinars; attendance to events of similar EU actions, Horizon Europe brokerage events, etc.	Joint actions with sister projects and the relevant CSA project.	Cluster kick off with Zero F, TORNADO and BIO-SUSHY. Internal meeting with IRISS kicked-off

3. Target audiences and key take away messages

3.1. Target audiences

Effective communication and dissemination are essential components of the PROPLANET project. To achieve the desired impact and ensure that project results reach the appropriate stakeholders, it is crucial to identify the target audiences for communication and dissemination purposes. For PROPLANET project an initial identification of target audience were conducted and summarised below and in Figure 1.

- **Materials and coatings manufacturing industries**, coatings sectors, industry sectors such as textile, food packaging, glass, low maintenance glass producers, transport, agro-industry, building and material logistic
- **SMEs** interested in adopting new technologies/knowledge
- **General public**, citizens, individuals interested in circular economy concepts and circular value chains
- **Scientific community**, universities, research centres, private sector
- **Policymakers, regulatory bodies, standardisation authorities, relevant associations, environmental consultancies**
- **Stakeholders** from different value chains

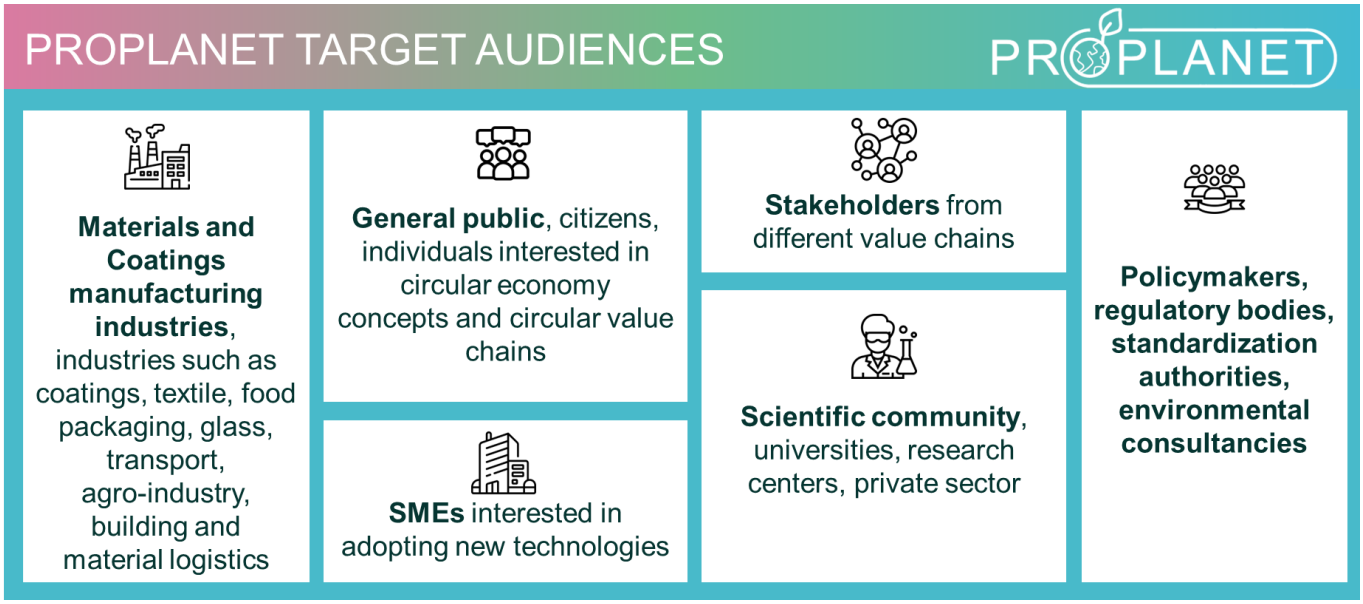


Figure 1. PROPLANET target audiences.

The target audiences are explained below, in more detail:

Materials and coatings manufacturing industries

Materials and coatings manufacturing industries serve as a vital target audience for communication and dissemination efforts. This audience segment covers all coatings industries, interested in innovative coatings applications. Coatings industries seek advanced technologies and materials that not only meet performance requirements but also adhere to principles of sustainability and circular economy practices.

These industries play a crucial role in supplying materials for various sectors, including construction, manufacturing, textiles, food packaging, glass, agro-industry and infrastructure development. By effectively reaching out to these industries, valuable information and knowledge can be shared to drive innovation, sustainable practices, and advancements in material production processes.

It is essential to tailor communication and dissemination efforts to the specific needs and interests of Materials and coatings manufacturing industries. Engaging industry associations, participating in industry events, and utilizing digital platforms can be effective methods for reaching and connecting with the target audience. By effectively communicating the benefits, sharing knowledge, and fostering collaboration, material producing industries can be motivated to adopt sustainable practices, drive innovation, and contribute to a more sustainable and circular economy.

SMEs

Small and medium-sized enterprises (SMEs) that are keen on embracing and implementing new technologies and knowledge have a tremendous opportunity for growth and competitiveness. By actively seeking out and adopting innovative solutions, these SMEs can enhance their operational efficiency, streamline their processes, and gain a competitive edge in their respective industries. Embracing new technologies and knowledge allows SMEs to stay up to date with industry trends, meet customer demands more effectively, and explore new business opportunities. It also enables them to improve their overall productivity, optimise resource utilisation, and potentially expand their market reach. By proactively engaging in the adoption of new technologies and knowledge, SMEs can position themselves for long-term success in today's rapidly evolving business landscape.

General public

The general public, citizens, and individuals interested in circular economy concepts and circular value chains hold immense potential for driving positive change in our global economy. These individuals, who may come from diverse backgrounds and sectors, play a crucial role in shaping consumer behaviour, advocating for sustainable practices, and supporting the transition towards a circular economy.

Engaging the general public and individuals interested in circular economy concepts can be achieved through effective communication and dissemination strategies. It is essential to raise awareness about the principles and benefits of the circular economy, showcasing its potential to reduce waste, conserve resources, and create economic opportunities. By providing educational resources, organizing public events, and leveraging digital platforms, individuals can be empowered to understand their role in the circular economy and take meaningful actions.

Highlighting successful case studies, inspiring stories, and showcasing innovative circular business models can also capture the attention and interest of the general public. This can involve companies that have successfully implemented circular value chains, while sharing their experiences and demonstrating the positive environmental and economic outcomes they have achieved.

Scientific community

The scientific community, including universities and research centres, holds a pivotal role in advancing knowledge, innovation, and driving progress in various fields. Engaging and communicating with this audience is crucial for fostering collaboration, sharing research findings, and promoting interdisciplinary approaches to tackle global challenges.

Communication efforts targeted at the scientific community, universities, and research centres should aim to facilitate the exchange of ideas, promote collaboration, and disseminate scientific knowledge. This can be achieved through various channels, including conferences, seminars, workshops, and publications in scientific journals. One key aspect of communication is sharing research findings and advancements. By highlighting breakthroughs, innovative methodologies, and scientific discoveries, researchers can inspire their peers, encourage further exploration, and contribute to the collective knowledge base. Additionally, providing open access to research papers, data sets, and supporting materials can facilitate collaboration and ensure the broad dissemination of scientific findings.

Engaging the scientific community also involves fostering dialogue and collaboration across disciplines. Encouraging interdisciplinary research and creating platforms for knowledge sharing between different fields can lead to new insights, approaches, and solutions to complex problems. Collaborative initiatives, such as joint research projects, consortiums, and partnerships between universities and research centres, can help accelerate scientific progress and address societal challenges more effectively.

Policymakers

One important target audience for PROPLANET is policymakers, including members of the European Parliament, national governments, and local authorities. Policymakers play a key role in shaping legislation, regulations, and policies that affect the project's field of activity, and their support can be critical for the success and sustainability of the PROPLANET outcomes. Effective communication with policymakers can help to raise awareness of the project and its potential impact and encourage the adoption of the project's results into policy.

Regulatory bodies and standardisation authorities

Targeting regulatory bodies and standardisation authorities as specific audiences for communication and dissemination efforts can have a significant impact on promoting best practices, regulatory compliance, and harmonisation of standards within industries. These entities play a critical role in developing, implementing, and enforcing regulations and standards that govern various sectors.

Engaging with regulatory bodies and standardisation authorities can be achieved through various channels, such as participation in consultation processes, contributing to standardisation committees, organizing workshops or seminars, and providing online resources and platforms for information exchange. By effectively communicating with these target audiences, it is possible to foster regulatory alignment, promote harmonised standards, and create an enabling environment that supports innovation, safety, and sustainability within industries.

Environmental consultancy agencies

Environmental consultancy agencies serve as important players in the field of environmental sustainability and impact assessment. They provide expertise, guidance, and support to businesses, organisations, and governments in managing environmental risks, complying with regulations, and implementing sustainable practices. Targeting environmental consultancy agencies as a specific audience for communication and dissemination efforts can help disseminate project findings, promote best practices, and foster collaborations. Engaging with environmental consultancy agencies can be achieved through targeted outreach, participation in industry events, collaborations with industry associations, and utilizing digital platforms to disseminate project findings and resources.

Relevant Associations

Several technical associations and platforms will be included in the target audiences of PROPLANET (e.g SPIRE, CEN, ISO, EFSA). PROPLANET has already entered the ECOSYSTEX community of EU-funded projects, dealing with textile circularity and sustainability. Updates will be made from all end users suggesting relevant associations and initiatives. Also check section 5.7.2. where more initiatives are presented in detail.

Stakeholders

Another important target audience for PROPLANET are industry stakeholders, including companies, trade associations, and business networks. These stakeholders can provide valuable feedback on the relevance and potential impact of the project results and may also be interested in collaborating with the project consortium to further develop and commercialise the project outcomes. Effective communication with industry stakeholders can help to foster partnerships and facilitate knowledge exchange, which can ultimately contribute to the success and sustainability of the project outcomes.

In conclusion, recognizing and understanding the appropriate target audiences for communication and dissemination purposes is crucial to maximizing the success and impact of EU-funded projects. By tailoring communication efforts to specific audiences such as SMEs, the scientific community, universities, research centres, material producing industries, regulatory bodies, and standardisation authorities, projects can effectively engage stakeholders, foster collaboration, and drive positive change. Each target audience has unique needs, interests, and challenges, requiring tailored messaging and approaches. By identifying these audiences, PROPLANET can develop communication strategies that resonate with their respective stakeholders, effectively conveying the project's objectives, outcomes, and benefits.

3.2. Take away messages

Key messages are the essential points of information that the target audiences need to understand, and remember, from different communication or dissemination efforts. These messages serve as the core content and focus of the communication strategy, ensuring that the audience grasps the most critical aspects of the PROPLABET project. Key messages should be clear, concise, and impactful, conveying the main ideas and objectives in a compelling manner. They help guide the overall narrative and ensure consistency in your communication across various channels and interactions.

Overall, key messages serve as a strategic tool to guide the communication efforts and ensure that audiences understand and retain the most important information. By crafting impactful and concise messages, the project's objectives, outcomes, and value can be effectively conveyed to the respective target audience, leaving a lasting impression and fostering engagement and support.

3.2.1. Limiting PFAS, known as “forever chemicals”

PFAS are a group of chemicals that are widely used in a variety of industrial and consumer products, including coatings. However, there is growing concern about the potential health and environmental impacts of PFAS due to their persistence, bioaccumulation, and toxicity[1,2].

[1] https://www.niehs.nih.gov/health/topics/agents/pfc/index.cfm
[2] https://www.niehs.nih.gov/health/topics/agents/pfc/index.cfm

There are several reasons why PFAS should be limited in coatings[3,4].

Health concerns: PFAS have been linked to a range of health effects, including cancer, liver and thyroid disease, and developmental and reproductive problems. Exposure to PFAS can occur through ingestion, inhalation, or skin contact, and there is evidence to suggest that even low levels of exposure can have adverse health effects.

Environmental concerns: PFAS are highly persistent and can remain in the environment for many years. They have been detected in water, soil, and air, and can accumulate in the food chain. PFAS can also harm wildlife and ecosystems, and their widespread use has resulted in their detection in remote regions such as the Arctic.

Regulatory aspects: Several countries, including the EU, have implemented or are in the process of implementing restrictions on the use of PFAS. This is due to concerns about their health and environmental impacts, and the need to protect human health and the environment.

Other alternatives: There are several alternatives to PFAS that can be used in coatings, such as fluorine-free coatings, which have been shown to have similar or better performance than PFAS-containing coatings. Using these alternatives can reduce the risks associated with PFAS use while still achieving the desired performance outcomes.

In summary, limiting the use of PFAS in coatings is important to protect human health and the environment, comply with regulatory requirements, and promote the use of safer alternatives.

3.2.2. Detailed key messages

As the project matures, the key messages are becoming more specific and precise. Here is the updated list of the PROPLANET key messages:

RELATED TO SOCIAL ACCEPTANCE & ADVERTISING

- Promote the cost-effectiveness of the innovative coatings
- Increase social acceptance through social activities related to PROPLANET results
- Promote the multi-objective optimisation capabilities (Minimising environmental & health impact while maximising production)

RELATED TO THE ECO-FRIENDLY NATURE OF COATINGS

- New enhanced Safe and Sustainable by Design coatings, replacing PFAS.
- Zero hazardous additive nature of the PROPLANET products
- Proposing novel coating materials solutions, tackling the problem from a sustainable-business perspective.
- Utilisation of the PROPLANET LCA studies to develop an eco-friendly methodology

[3] https://echa.europa.eu/hot-topics/perfluoroalkyl-chemicals-pfas
[4] *Sudarshan Kurwadkar, et al., Per- and polyfluoroalkyl substances in water and wastewater: A critical review of their global occurrence and distribution, Science of The Total Environment, Volume 809,2022.*

RELATED TO THE MODELLING CAPABILITIES OF PROPLANET TOOLS

- Promotion of the open-access nature of PROPLANET Replication tool
- High potential to enhance the final products through using SSbD high-performance coatings.
- Utilisation of computational tools for supporting SSbD materials.
- Reduction in waste production, experiments and animal testing by utilising the PROPLANET tools
- Prediction of coatings' toxicity through in-silico methodologies and the environmental impact through environmental fate models

RELATED TO THE METHODOLOGIES AND POLICIES DEVELOPED IN PROPLANET

- Promoting the environmental protection, safety, chemical improvements, and circular value chains.
- Advancing coatings standardisation.
- Exploring the use of novel coatings in several applications through replication use cases.
- Analysing the entire value chain to ensure circularity by design

The key messages have a dynamic nature as they follow the project evolution. To ensure that they are always adapted to the scope, they are constantly updated along with the new findings and final targets of PROPLANET.

4. Communication toolkit

According to EU guidelines, EU projects must respect the confidentiality of the consortium agreement as well as the researchers' innovative results. Especially when complex IPRs are involved such as patents and utility models that are to be registered later or trade secrets that must remain confidential. On the other hand, parts of the project's efforts and insights from research need to be published to attract stakeholders and efficiently disseminate the project's capabilities.

A communication strategy is an essential component to help all partners publish their results effectively without facing challenges/issues with IPR and exploitation objectives of the consortium. Therefore, EXELISIS has developed a communication toolkit that enables careful yet effective communication of the results thanks to their extensive experience in Exploitation Dissemination & Communication of results. This serves as a comprehensive guide to all the communication tools, channels, and methods used to disseminate project information to stakeholders and the public.

The PROPLANET toolkit provides project partners with clear guidelines on how to communicate effectively, ensuring that the project message is consistent across all channels. By utilising this strategy, the project, as well as partners individually, can reach a broader audience, build awareness around the project's capabilities and encourage engagement from stakeholders. A wider awareness and attraction of stakeholders can ensure the successful exploitation of the results, post-project, as the "brand" built from the communication media remains.

The communication toolkit consists of templates for various communication materials, such as documents, press releases, social media posts, printed material, and presentations. This ensures consistent messaging and branding, enhances authenticity and promotes unity among partners. A well-defined communication toolkit enables EU projects to maximise their research impact, foster collaboration, and achieve their objectives. More information about the PROPLANET communication toolkit can be found in D7.1 of PROPLANET project titled: “Project identity, website, and social media”.

4.1. Visual Identity

The visual identity of a project has a major role in conveying its message, values, and brand identity. A strong, cohesive visual identity fosters recognition, builds credibility, and enhances communication with target audiences. In this section, the key elements and guidelines are outlined for the visual identity of the PROPLANET project.

The **logo** is the centrepiece of the visual identity and serves as the primary visual representation of the project. It forms the first impression stakeholders have when they visit the project's website or social media platforms and should be carefully designed to reflect the project's objectives, values, and core message. The logo should be unique, recognizable, yet easily scalable to different sizes and formats to facilitate the partners’ utilisation. It should be versatile enough to be used across various communication channels, both online and offline. Choosing the right colors and typography is vital for ensuring consistency and crafting an attractive visual identity. Establishing a uniform color palette and typography style guide will maintain visual coherence across various communication materials and foster unity in partners' posts.

It is crucial that all partners can easily access the **visual guidelines**, thus documentation is essential for maintaining consistency and facilitating the use of the visual identity by all project partners. This includes guidelines on logo usage, color codes, typography specifications, graphic elements, templates, and layout principles. All guidelines are well documented and frequently shared with all relevant stakeholders to ensure uniformity in the project's visual representation.

The PROPLANET logo and guidelines can be found in Figure 2.

4.2. PROPLANET Communication material

This section presents an overview of the communication materials, including leaflets, poster, folders, roll-ups and other relevant materials, that are showcased in posts, events, conferences, meetings, trainings etc. These communication materials have a key role in conveying information about the project efficiently to diverse stakeholders.

It should be highlighted that all communication material was specifically designed for PROPLANET to capture its essence and promote its key messages in a visually appealing and concise manner. This section aims to present these materials to ensure that the project's goals, objectives, and achievements are effectively communicated and easily accessible to the target audience.


PROPLANET Leaflet


PROPLANET Poster


PROPLANET Rollup


PROPLANET Folder


PROPLANET Badge

Figure 2. PROPLANET logo and communication materials.

4.3. PROPLANET Templates

This section features templates for various project materials, including presentations, posters, deliverables, agendas, participant lists, and meeting minutes. The templates are designed to align with the project's identity while ensuring user-friendly formats for easy access. Detailed descriptions of these templates can be found more analytically in D7.1 of the PROPLANET project, titled “Project Identity, Website, and Social Media.”

Figure 3. PROPLANET templates matching the project identity.

4.4. PROPLANET Infographics

Infographics are key parameters in communication materials because they effectively convey complex information in a concise and visually appealing way. They capture attention quickly through engaging visuals and make information more memorable and understandable for diverse audiences

In the PROPLANET project, as a chemical manufacturing- related project, there are various aspects that may seem complex to the wider public such as the chemistry and the methodologies followed for coatings; development as well as the SSbD approaches, to name a few. Infographic videos can cover such gaps among academia/industries and business-related stakeholders. In PROPLANET, various infographics were developed representing the goals, concepts, and procedures, simplifying the presentation of research findings, ideas, and achievements. By incorporating charts, graphs, and icons, infographics help viewers easily grasp key messages and insights. These can be distributed on websites, social media, presentations, and reports, making them highly shareable and accessible to stakeholders, policymakers, and the general public.

Figure 4 presents some of the project infographics that have already been designed, serving as powerful tools to communicate the value, impact, and complexity of the PROPLANET project. These infographics make information more accessible, engaging, and memorable, thereby enhancing project dissemination, stakeholder engagement, and public awareness.

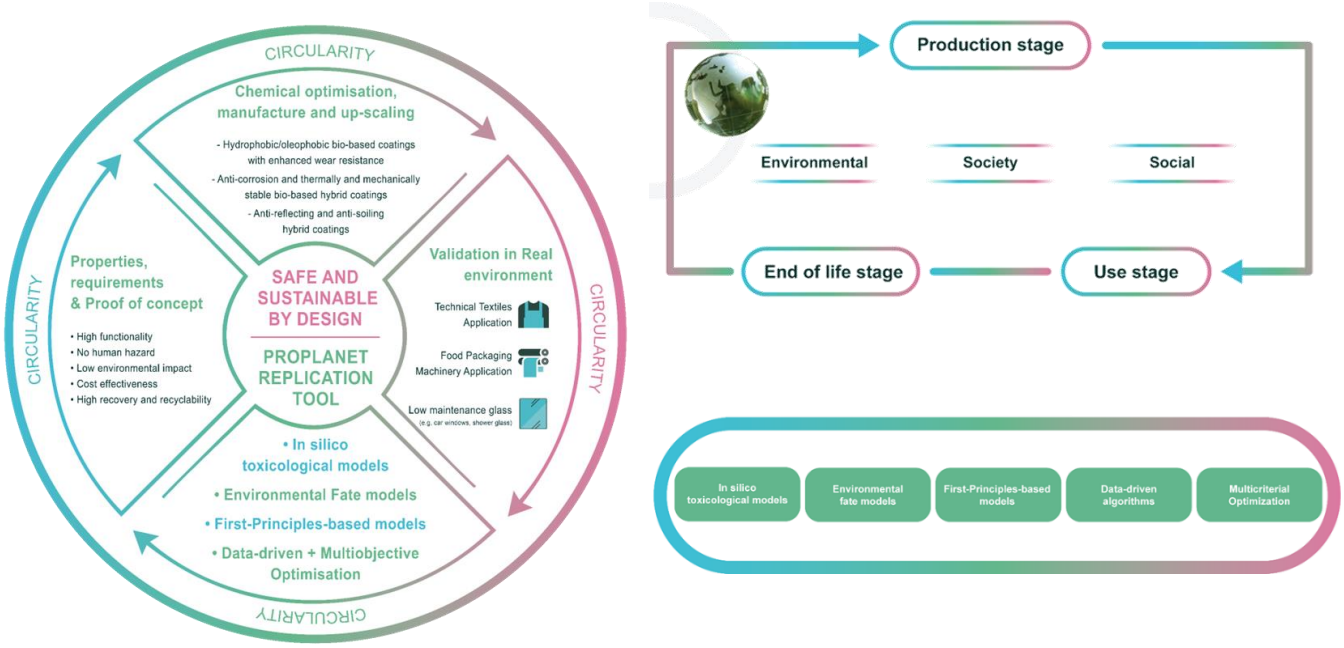


Figure 4. PROPLANET Infographics.

4.5. PROPLANET Website

The PROPLANET website is designed and continuously updated serving as an excellent tool for efficient communication and dissemination of the project. The PROPLANET website can be found here: www.proplanet-project.eu.

Below are some key benefits and features of PROPLANET's website can offer are summarised:

Project Overview: The website presents a comprehensive view of the project, detailing its objectives, scope, and expected outcomes, allowing visitors to grasp its purpose and significance. The website home page was recently updated with a short video compilation presenting the three end uses that are targeted in PROPLANET.

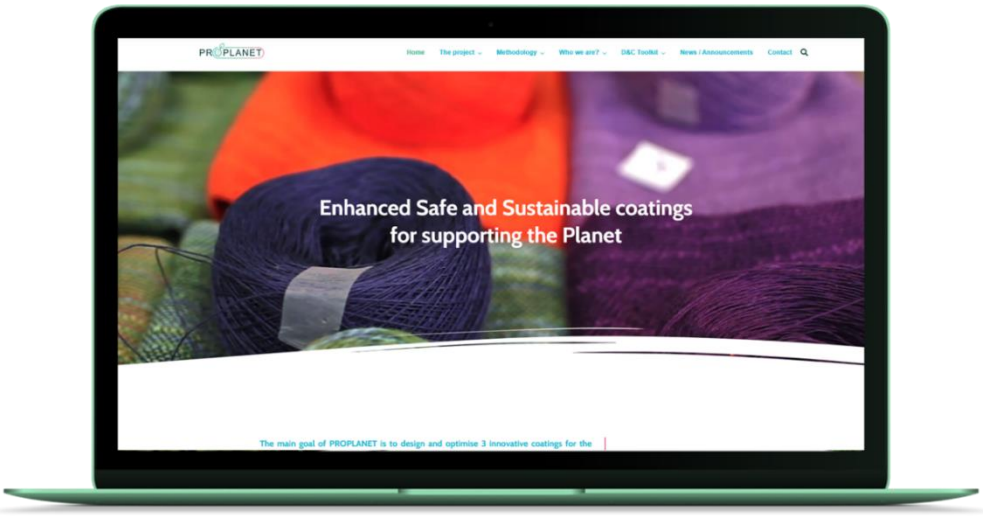


Figure 5. PROPLANET website.

- **Methodologies:** The website provides an overview of the technologies employed in PROPLANET as well as the sectors where they can be applied. Moreover, the SSbD principles and the mathematical tools utilised are summarised in the dedicated section of the website
- **News & updates:** The project's involvement in activities is shared on the website, including events, publications, and announcements, keeping stakeholders, partners, and the general public well-informed of the project's progress.
- **Team:** The project consortium is also described within the PROPLANET website, where the cluster projects section was added recently, and can be found here: https://www.proplanet-project.eu/our-cluster/ .
- **Document Repository:** PROPLANET's website acts as a central hub for project-related documents, including deliverables, D&C materials, templates, publications, newsletters, and press releases, to promote transparency and knowledge sharing by making them easily accessible for interested individuals to download. In the PROPLANET website a new section was designed, including the 4 videos already available: https://www.proplanet-project.eu/project-videos/ .
- **Showcasing Outcomes:** The website also serves as a platform to highlight the project's achievements, such as research findings, innovative solutions, and best practices, reaching a wider audience and facilitating knowledge dissemination.
- **Event promotion:** Upcoming events, workshops, webinars, and conferences related to the PROPLANET project are advertised on the website, attracting participants and ensuring potential stakeholders are aware of engagement and networking opportunities.

All PROPLANET contact information is displayed on the project's website to enable visitors reach out with inquiries, feedback, or collaboration proposals, promoting engagement and interaction between the project team and stakeholders. Additionally, multimedia elements such as images, videos, and interactive content are seamlessly integrated into the website when available, enriching the presentation of project information, presenting activities, and engaging with followers and stakeholders interactively.

The project's website incorporates links to its social media profiles, enabling visitors to connect and interact with the project across platforms like Twitter, LinkedIn, or Facebook. This integration expands the project's outreach, fosters continuous communication, and facilitates engagement with a wider audience.

The website is currently updated in a bi-weekly basis with the latest information from PROPLANET. It will continue to be maintained regularly, ensuring all activities and updates are included. The news/announcement section already hosts 35 news, including upcoming events and attendance to conferences and workshops, among others.

4.5.1. PROPLANET website analytics

PROPLANET website analytics will be kept ensuring monitoring and analysing data related to the performance and usage of the project's website. It involves the collection, measurement, and interpretation of various metrics to gain insights into how the website is performing, how users are interacting with it, and what actions can be taken to improve its effectiveness. Below, some key aspects of PROPLANET website analytics are summarised:

Audience: According to the data provided, the PROPLANET website received visitors from a total of 54 countries worldwide (Figure 6) over a span of 16 months. Most of these visitors originated from North and South America, accounting for approximately 50% of the total. Visitors from European countries make up for nearly 46% and visitors from Asian countries 4% of the overall visitor base (Figure 7).

COUNTRY	USERS
United States	858
Spain	157
Greece	64
Portugal	57
France	55
Germany	50
Netherlands	50

Figure 6. Visitors around the globe.

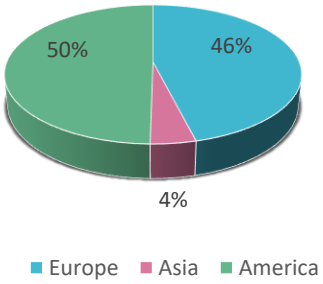


Figure 7. Visitors per continent.

Out of the total of 1.7K unique visitors who accessed the website, approximately 7,1% consist of returning visitors who regularly seek news and updates (Figure 8).

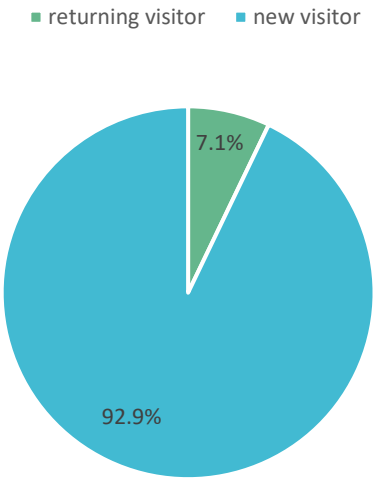
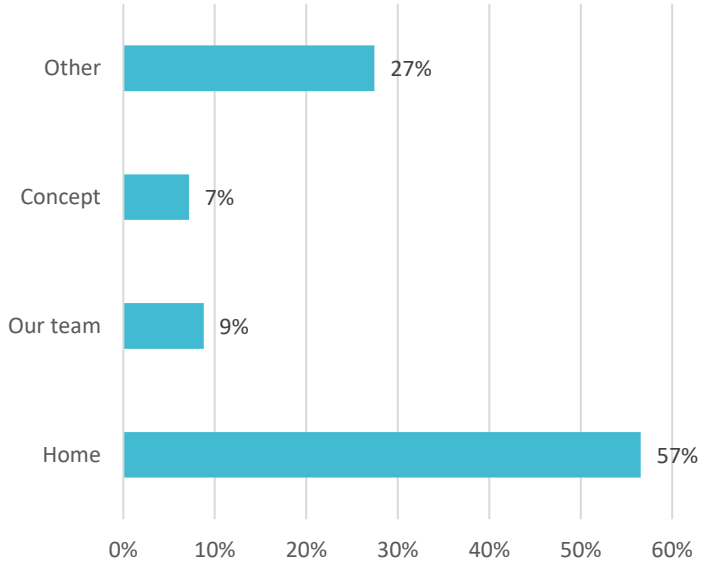


Figure 8. New vs returning visitors.

The website analysis reveals that most visitor clicks are concentrated on the Homepage, accounting for 57% of total clicks, the Our Team tab is nearly 9%, while the Concept tab attracts around 7% of the clicks. Furthermore, an overwhelming 71% of the visitors access the website directly through a specific link, signifying a direct navigation approach. Approximately 23% of the visitors tend to search engines to locate the website, and roughly 5% arrive via referral link from another website or post.

	Page title and screen class	Views
		3,857 100% of total
1	Home - PROPLANET-PROJECT.EU	2,182
2	Our Team - PROPLANET-PROJECT.EU	339
3	Concept - PROPLANET-PROJECT.EU	277
4	Technologies & Applications - PROPLANET-PROJECT.EU	158
5	News / Announcements - PROPLANET-PROJECT.EU	151
6	Our Cluster - PROPLANET-PROJECT.EU	103
7	D&C Printed Materials - PROPLANET-PROJECT.EU	76
8	Goals - PROPLANET-PROJECT.EU	68
9	Newsletter & Press Releases - PROPLANET-PROJECT.EU	65
10	Contact - PROPLANET-PROJECT.EU	54



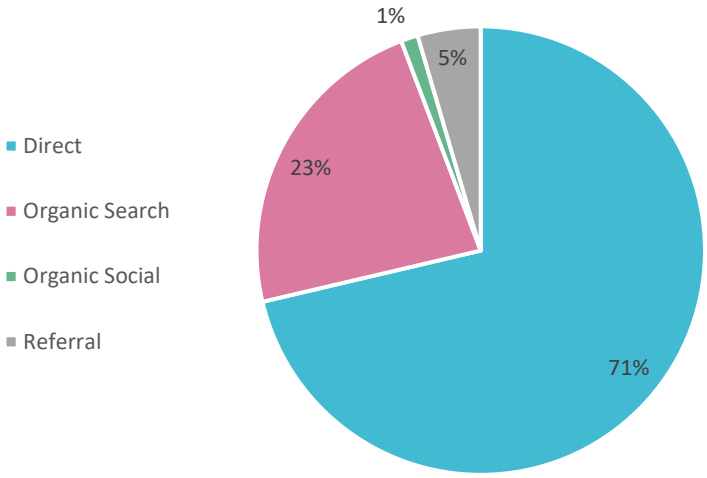


Figure 9. Views per each page and visitors' flow.

4.6. PROPLANET Social media platforms

PROPLANET social media platforms are a key factor in EU projects serving as essential tools for extending outreach and raising awareness to a wider audience. They offer a channel for project teams to disseminate updates, news, and accomplishments to stakeholders, potential collaborators, and the public, thereby enhancing visibility and engagement. Furthermore, these platforms enable stakeholder involvement through interactive communication, allowing project teams to receive feedback, address inquiries, and stimulate discussions. This interactive exchange facilitates the development of robust relationships, the collection of valuable insights, and the cultivation of collaborative efforts.

Social media platforms create spaces for knowledge exchange and collaboration among project partners, experts, and the wider community. They act as online communities where individuals can connect, exchange resources, research findings, and best practices, thereby fuelling innovation and the cross-fertilization of ideas. Additionally, these platforms serve as efficient channels for distributing project results, outputs, and publications. Through the sharing of reports, articles, infographics, videos, and other multimedia content, projects enhance the reach and visibility of their achievements, appealing to a broader audience and attracting potential opportunities for collaboration or funding.

Furthermore, social media platforms help EU projects to actively participate in policy discussions, advocate for change, and showcase their findings to policymakers and pertinent stakeholders. Through the dissemination of evidence-based insights, projects can shape policy agendas, contribute to public discourse, and catalyse positive transformations within their specific fields. Moreover, these platforms enable projects to deliver timely updates on events, conferences, workshops, and other engagements. By generating interest, fostering engagement, and offering live coverage or summaries of project-related activities, they promote transparency and facilitate wider involvement.

Figure 10. Available social media platforms for PROPLANET project.

4.6.1. PROPLANET LinkedIn account

With over 690 million users and still growing, LinkedIn stands as the leading professional networking platform. Functioning as a central repository of information, it ensures its followers remain current on companies, businesses, universities, and other relevant entities pertinent to their professional interests or domains. LinkedIn boasts a wide global presence, spanning 200 countries and territories, and offers services in 26 languages.[5].

[5] https://www.demandsage.com/linkedin-statistics/

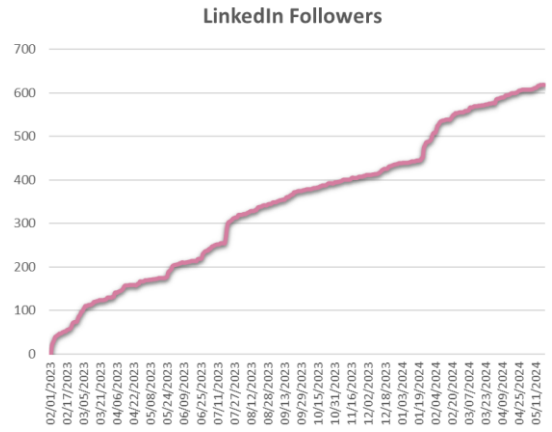
PROPLANET's LinkedIn:

CLICK HERE

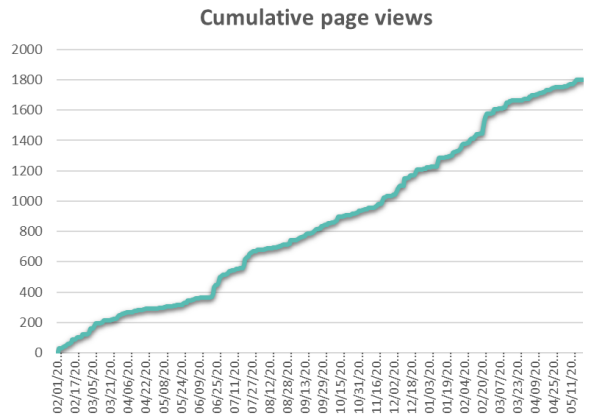
The objective behind establishing this account is to furnish updates, relay progress, and circulate information to a diverse audience, primarily comprising professionals and academia. By forging connections within the technology sector, research organizations, corporations, and other pertinent stakeholders, PROPLANET aims to distribute all news, events, initiatives, and notable accomplishments. Considering that mostly academia, industries and business-related stakeholders utilise LinkedIn for networking and collaboration opportunities, PROPLANET can achieve a larger impact.

4.6.2. PROPLANET LinkedIn Analytics

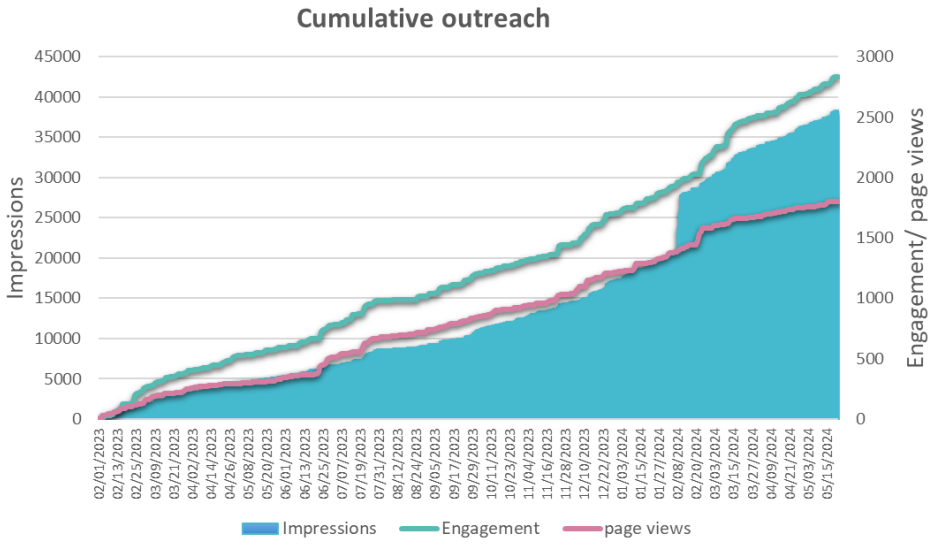
PROPLANET LinkedIn Analytics will record measurement of data related to the performance and impact of the PROPLANET project on the LinkedIn platform. This involves tracking various metrics and statistics, such as the number of followers, engagement rates, reach, and impressions. By analysing this data, the team can gain insights into the effectiveness of their LinkedIn communication and dissemination activities, identify trends, and make informed decisions to optimise their outreach efforts.



(a)



(b)



(c)

Figure 11. (a) Followers, (b) page views and (c) cumulative outreach for the PROPLANET LinkedIn page.

The number of followers for the PROPLANET LinkedIn page are above 610, indicating a growing audience interested in the project's updates and content. Additionally, the page has received more than 1800page views, reflecting the visibility and interest generated by the project. In terms of engagement, the cumulative outreach on the PROPLANET LinkedIn page has exceeded 2830 post engagements, indicating active interaction and interest from the audience. Furthermore, the project's posts have reached an impressive 38300 impressions, suggesting a wide reach and potential visibility among LinkedIn users. These statistics demonstrate the positive impact and engagement generated by the PROPLANET LinkedIn page in promoting the project's goals and achievements.

4.6.3. PROPLANET X platform

X platform (former Twitter) serves as a popular platform for concise and up-to-date news, allowing the public to quickly catch up on current events. With a broad user base, including over 100 million daily active users, leveraging this platform effectively involves sharing project activities and encouraging audience interaction. The objective is to engage the audience by providing relevant updates and fostering meaningful interactions related to the project's goals[6].

PROPLANET's X account:

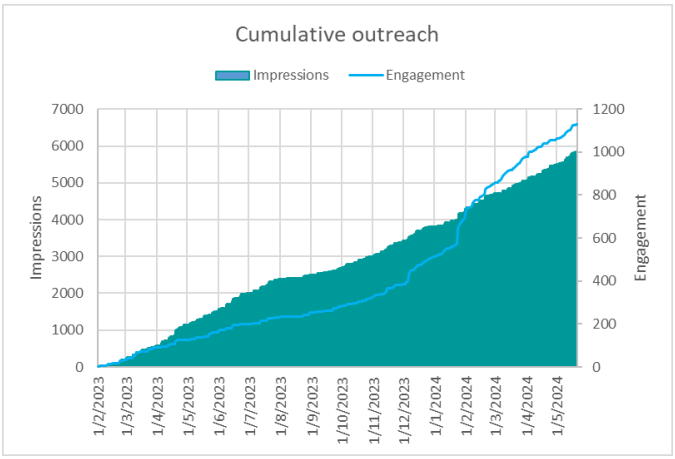
CLICK HERE

4.6.4. PROPLANET X Analytics

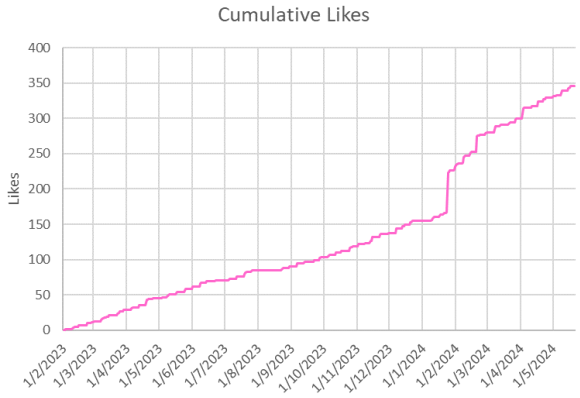
PROPLANET X Analytics refers to the analysis and evaluation of data related to the performance and impact of the PROPLANET project on the X platform. This involves tracking and assessing various metrics, such as the number of followers, retweets, likes, replies, and overall engagement. By analysing this data, the project team can gain insights into the effectiveness of their Twitter communication strategy, identify trends, and make informed decisions to optimise their outreach efforts. PROPLANET X Analytics provides valuable information for evaluating the project's online presence, audience engagement, and the overall impact of its X communication activities.

On PROPLANET's X page, the followers have reached 400, while post impressions have reached an impressive 5850, indicating the significant reach and visibility of the project's posts. Moreover, the engagement on these posts has exceeded 1100, demonstrating active interaction and interest from the audience. Since the platform's launch, the page has garnered almost 350 likes, reflecting the growing appreciation and support for the project on X. These statistics highlight the positive impact and engagement generated by PROPLANET's presence on X.

[6] https://blog.hubspot.com/marketing/what-is-twitter



(a)



(b)

Figure 12. (a) Cumulative outreach and (b) Likes for the PROPLANET X page.

4.6.5. PROPLANET Facebook account

Facebook, being the globally recognised social media platform, provides an excellent opportunity for the project to implement a well-crafted strategy to raise awareness among a wide-ranging audience. Its powerful keyword search functionality facilitates the discovery of relevant posts and pages related to the project's content by using simple and straightforward terms. This enables effective dissemination of project-related information to a broader audience, enhancing project visibility and engagement[7].

PROPLANET's Facebook:

CLICK HERE

4.6.6. PROPLANET Facebook Analytics

PROPLANET Facebook Analytics refers to the analysis and measurement of data related to the performance and impact of the PROPLANET project on the Facebook platform. This involves tracking various metrics and statistics, such as page visits, audience reach, etc. By analysing this data, the project team can gain insights into the effectiveness of their Facebook communication strategy, identify trends, and make informed decisions to optimise their outreach efforts. PROPLANET Facebook Analytics provides valuable information for evaluating the project's online presence, audience engagement, and the overall impact of its Facebook communication activities.

PROPLANET's Facebook page has achieved a remarkable unique user reach of over 5000, indicating the broad audience reached by the page's content. Additionally, the page has received more than 700 page visits, demonstrating the interest and engagement generated by the project. To keep the audience informed, weekly posts are shared, highlighting project updates and introducing the project team through dedicated content. In total, more than 70 posts have been announced, showcasing the project's progress and fostering engagement with the Facebook community. These statistics reflect the positive impact and engagement generated by PROPLANET's presence on Facebook.

[7] https://www.businessnewsdaily.com/2534-facebook-benefits.html

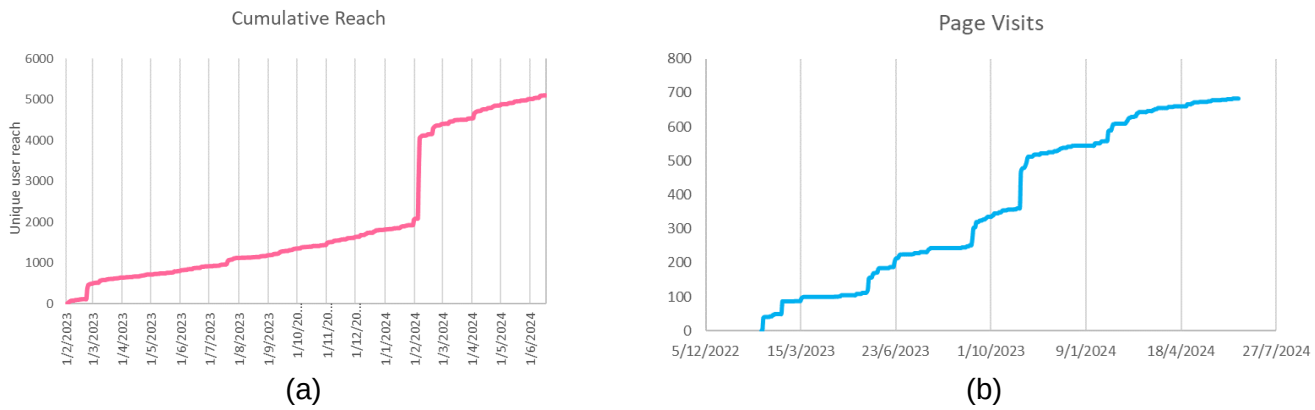


Figure 13. (a) Cumulative reach and (b) Page visits for the PROPLANET Facebook page.

4.7. Guidelines and best practices

Guidelines and best practices for communication and dissemination were shared among the PROPLANET consortium to ensure effective outreach and impact. These guidelines offer valuable insights and recommendations for consortium members on how to convey project objectives, activities, and outcomes to various target audiences. They include strategies for engaging stakeholders, using appropriate communication channels, crafting compelling messages, and effectively leveraging digital platforms. By adhering to these guidelines, the consortium aims to enhance the visibility, understanding, and engagement with PROPLANET's initiatives and achievements, ultimately maximizing the project's impact and fostering collaboration and knowledge sharing.

EXELISIS, as the leader of the communication and dissemination activities, has summarized these guidelines in a comprehensive infographic. as shown in Figure 14.

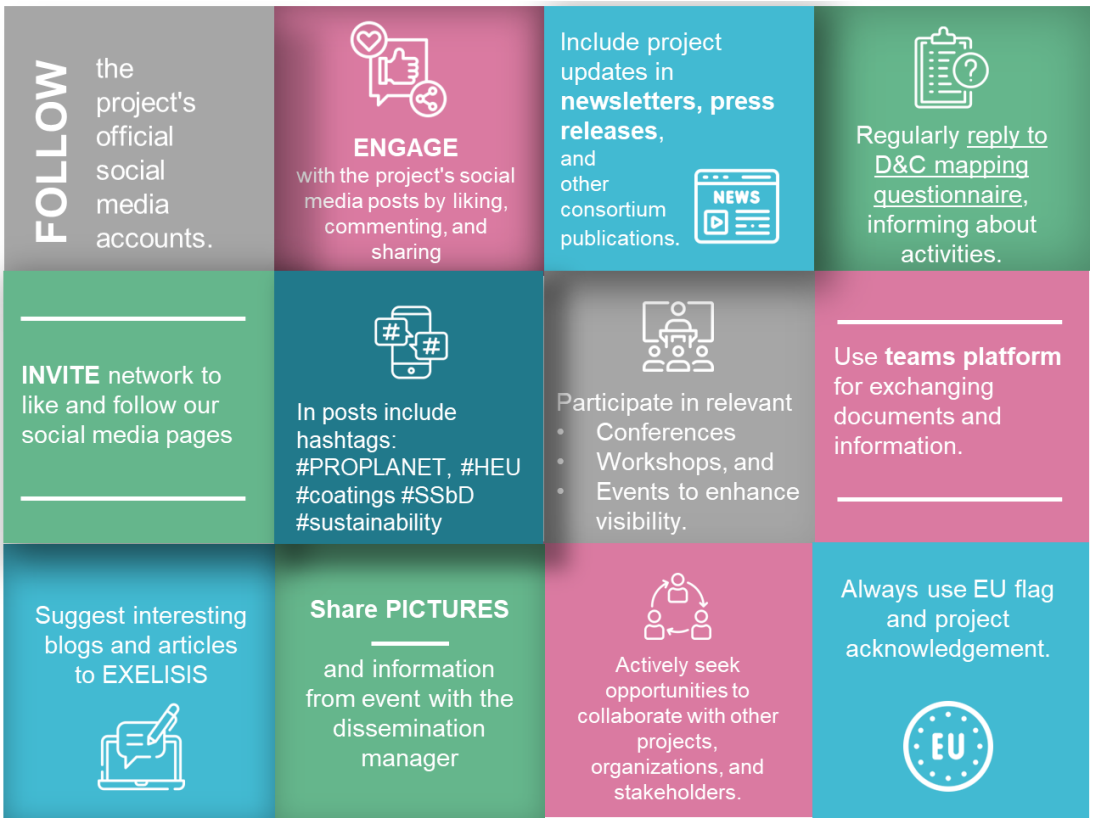


Figure 14. Guidelines and best practices.

4.8. PROPLANET Mapping Questionnaire

The online dissemination and communication questionnaire, created by EXELISIS, is a valuable tool for the PROPLANET project, helping to map the consortium's activities.

This questionnaire gathers information on the communication and dissemination efforts of each partner and is periodically distributed among consortium members. EXELISIS designed the questionnaire to systematically collect data on the various initiatives undertaken by consortium members to share project information and communicate outcomes. By using this questionnaire, PROPLANET aims to gain a comprehensive understanding of the diverse communication strategies and activities employed by each partner. The distribution of the questionnaire was made during the first stages of the project, while then it was replaced by a Mapping Excel (see below). These efforts ensure that the consortium shares up-to-date and accurate insights with its members.

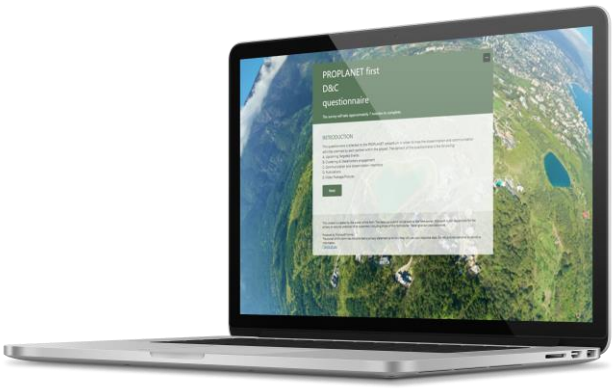


Figure 15. PROPLANET's online questionnaire.

4.9. PROPLANET Mapping Excel

Thanks to prior experience in dissemination activities, EXELISIS has developed a thorough table, in Excel spreadsheet, which is utilised to document any activities that PROPLANET partners may have participated. This includes:

1. Publications section
2. Past dissemination activities section
3. Past communication activities section
4. Upcoming Events section

The publications section collects past as well as planned publications.

The dissemination section includes all dissemination activities separated into five categories (Clustering activities, Conferences, Education or Training event, Collaboration with EU-funded projects and Others). Also, it monitors whether PROPLANET or its partners were the organisers of the activity or simply participants as well as the date & place and the website/link of the event.

Communication efforts made by the consortium are also monitored, including social media posts on partners platforms, website announcements, media updates, newsletters, press releases, printed materials and videos, among others.

The consortium also shares in a dedicated section the upcoming events that they are planning to attend, to coordinate potentially the efforts in case more than one partners attend or in order to plan the announcements on social media and news sections.

The PROPLANET Mapping Excel is a valuable tool that can be easily utilised by both academia and commercial partners. The strategy includes sharing these files with the consortium for dissemination & communication activities being updated among the consortium (publications, conferences, events etc). This tool can save-up precious time from both technical partners as well as the dissemination.

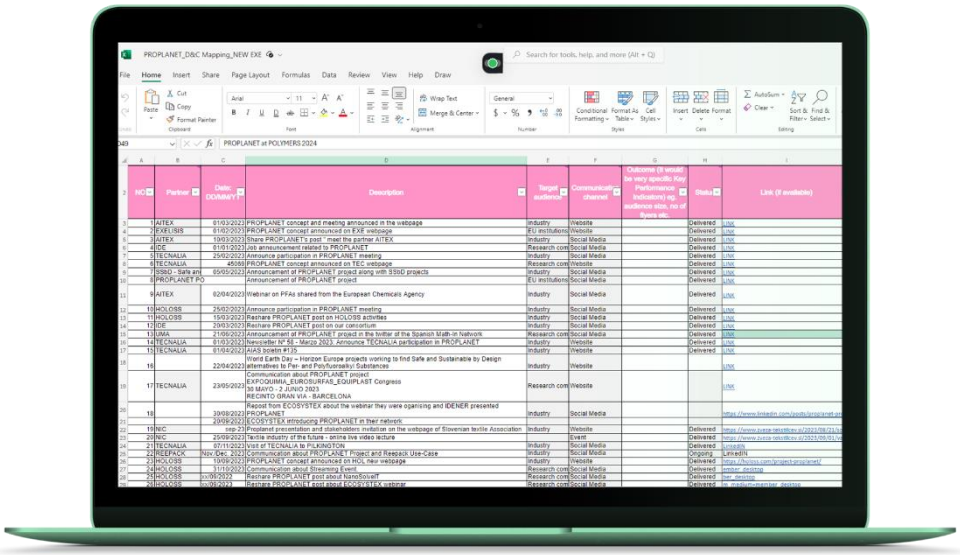


Figure 16. PROPLANET's D&C Mapping Excel

4.10. PROPLANET Communication Activities

The consortium-initiated communication efforts through online social media platforms and websites, maintaining a high level of activity. The table below summarizes these communication activities. Effective communication is essential for EU-funded projects to engage a broader audience, including those without a scientific background. Thus, projects must carefully craft key messages to appeal not only to scientific stakeholders but also to the general public.

Table 2. PROPLANET communication activities.

no	Partner/Publisher	Date: DD/MM/YY	Description	Link
1.	AITEX	01/03/2023	PROPLANET concept and meeting announced on the webpage	LINK
2.	EXELISIS	01/02/2023	PROPLANET concept announced on EXE webpage	LINK
3.	AITEX	10/03/2023	Share PROPLANET's post " meet the partner AITEX	LINK
4.	IDE	01/01/2023	Job announcement related to PROPLANET	LINK
5.	TECNALIA	25/02/2023	Announce participation in PROPLANET meeting	LINK
6.	TECNALIA	23/05/2023	PROPLANET concept announced on TEC webpage	LINK

7.	SSbD - Safe and Sustainable by Design Platform	05/05/2023	Announcement of PROPLANET project along with SSbD projects	LINK
8.	PROPLANET Project officer	25/02/2023	Announcement of PROPLANET project	LINK
9.	AITEX	02/04/2023	Webinar on PFAS shared from the European Chemicals Agency	LINK
10.	HOLOSS	25/02/2023	Announce participation in PROPLANET meeting	LINK
11.	HOLOSS	15/03/2023	Reshare PROPLANET post on HOLOSS activities	LINK
12.	IDE	20/03/2023	Reshare PROPLANET post on our consortium	LINK
13.	UMA	21/06/2023	Announcement of PROPLANET project in the twitter of the Spanish Math-In Network	LINK
14.	TECNALIA	Mar-23	Newsletter Nº 58 - Marzo 2023: Announce TECNALIA participation in PROPLANET	LINK
15.	TECNALIA	Apr-23	AIAS boletin #135	LINK
16.	HaDEA	21/4/2023	World Earth Day – Horizon Europe projects working to find Safe and Sustainable by Design alternatives to Per- and Polyfluoroalkyl Substances	LINK
17.	TECNALIA	30/5/2023	Communication about PROPLANET project EXPOQUIMIA_EUROSURFAS_EQUIPLAST Congress (30 MAYO - 2 JUNIO 2023) BARCELONA	LINK
18.	ECOSYSTEX	30/8/2023	Repost from ECOSYSTEX about the webinar they were organising and IDENER presented PROPLANET	LINK
19.	ECOSYSTEX	20/9/2023	ECOSYSTEX introducing PROPLANET in their network	LINK
20.	NIC	21/08/23	PROPLANET presentation and stakeholders' invitation on the webpage of Slovenian textile Association	LINK
21.	NIC	25/9/2023	Textile industry of the future - online live video lecture	LINK

22.	TECNALIA	7/11/2023	Visit of TECNALIA to PILKINGTON Announcement	LINK
23.	REEPACK	Nov./Dec. 2023	Communication about PROPLANET Project and REEPACK Use-Case	-
24.	HOLOSS	10/9/2023	PROPLANET concept announced on HOL new webpage	LINK
25.	HOLOSS	31/10/2023	Communication about Streaming Event.	LINK
26.	HOLOSS	1/09/2022	Reshare PROPLANET post about NanoSolveIT	LINK
27.	HOLOSS	22/09/2023	Reshare PROPLANET post about ECOSYSTEX webinar	LINK
28.	HOLOSS	11/07/2023	Reshare PROPLANET post about TEC at the 10th European Silicon Days	LINK
29.	HOLOSS	06/07/2023	Reshare PROPLANET post about AIT attended the X Congreso I+D+i "Creando Sinergias"	LINK
30.	NIC	06/12/2023	Communication about PROPLANET project: Symposium Smart Textiles & AI	LINK
31.	TECNALIA	19/4/2024	TECNALIA internal workshop on PFAS and its substitution in coatings applications	LINK
32.	AITEX	01/05/2024	PROPLANET project announced in AITEX Magazine (num. 76, May 2024).	LINK
33.	EXELISIS	21/2/2024	PROPLANET’s 12M Consortium Meeting	LINK
34.	EXELISIS	5/2/2024	PROPLANET’s video created by EXELISIS	LINK
35.	EXELISIS	16/1/2024	PROLANET's YouTube channel	LINK
36.	EXELISIS	29/3/2024	Celebrate the International Day of Zero Waste on LinkedIn	LINK
37.	EXELISIS	21/2/2024	PROPLANET’s 12M Consortium Meeting in San Sebastian on LinkedIn	LINK
38.	EXELISIS	21/2/2024	PROPLANET’s 12M Consortium Meeting in San Sebastian on website	LINK
39.	EXELISIS	31/1/2024	PROPLANET video promoted by ECOSYSTEX	LINK

40.	HOLOSS	01/12/2024	Reshare PROPLANET post about invitation for "first social engagement streaming event"	LINK
41.	HOLOSS	01/01/2024	Reshare PROPLANET post about conclusion of social engagement event	LINK
42.	HOLOSS	01/01/2024	Reshare PROPLANET post about official PROPLANET Project video	LINK
43.	HOLOSS	01/02/2024	Announce participation in PROPLANET M12 meeting	LINK
44.	HOLOSS	01/02/2024	Reshare PROPLANET post about "PROPLANET's 12M Consortium Meeting"	LINK
45.	HOLOSS	01/03/2024	Reshare PROPLANET post about video developed by HOLOSS	LINK
46.	UMA	08/03/2024	Reshare of International Women's Day Announcement	LINK
47.	NIC	08/03/2024	Reshare of International Women's Day Announcement	LINK
48.	HOLOSS	08/03/2024	Reshare of International Women's Day Announcement	LINK
49.	TECNALIA	08/03/2024	Reshare of International Women's Day Announcement	LINK
50.	HOLOSS	01/04/2024	Reshare PROPLANET post about "Internacional ASOl-Gel conference"	LINK
51.	EXELISIS	28-31/05/24	PROPLANET at POLYMERS 2024 announced on social media	LINK
52.	EXELISIS	28-31/05/24	PROPLANET at POLYMERS 2024 announced on website	LINK
53.	EXELISIS	11/06/24	M18 Consortium Meeting on social media	LINK
54.	EXELISIS	11/06/24	M18 Consortium Meeting on website	LINK
55.	TECNALIA	12/06/24	M18 Consortium Meeting	LINK
56.	EXELISIS	10/07/23	Newsletter Issue 1	LINK
57.	EXELISIS	20/12/23	Newsletter Issue 2	LINK
58.	EXELISIS	28/06/24	Newsletter Issue 3	LINK

4.11. PROPLANET on TV

PROPLANET partner NIC had the opportunity to showcase the PROPLANET insights and technological advancements on RTV Slovenia's "Ugriznimo znanost" program where Dr. Blaž Štres emphasized the PFAS presence in clothing, their transfer to skin and water through washing, and their impact on long-term health. Dr Anja Verbic also showcased the developments achieved in the NIC laboratories related to innovative coatings for textile applications.
The show may be found here in Slovenian language:
https://www.rtvslo.si/rtv365/arhiv/175016345?s=tv

4.12. PROPLANET Video

Videos serve as a dynamic and engaging medium for conveying project objectives, activities, and outcomes [8]. They can effectively tell stories, display results, and forge emotional connections with viewers. Secondly, videos can reach a wider audience, including stakeholders, policymakers, and the general public. Additionally, videos can reach a diverse audience, including stakeholders, policymakers, and the general public. They can simplify complex concepts, making them more accessible and easier to grasp. Videos enable visual demonstrations, interviews, and testimonials, which can enhance the understanding and relevance of the project's work.

The PROPLANET videos can be found in PROPLANET YouTube channel

CLICK HERE

4.12.1. PROPLANET Official Video

The PROPLANET official video was created by EXELISIS to boost dissemination, engage stakeholders, and increase awareness of the project's goals, achievements, and impacts. This video's purpose was to illustrate the project concept and results and was released towards the end of the first year of the project implementation (in 2023).

[8] *Wang, W., & Zhang, Y. (2020). Video as an effective tool for science communication and public engagement: A review. Public Understanding of Science, 29(7), 748-762.*

Figure 17. Scenes from the PROPLANET official video

During this period, 2 sponsored campaigns were initiated on the occasion of the official PROPLANET video announcement; one on LinkedIn and one on Facebook in order to promote the video.

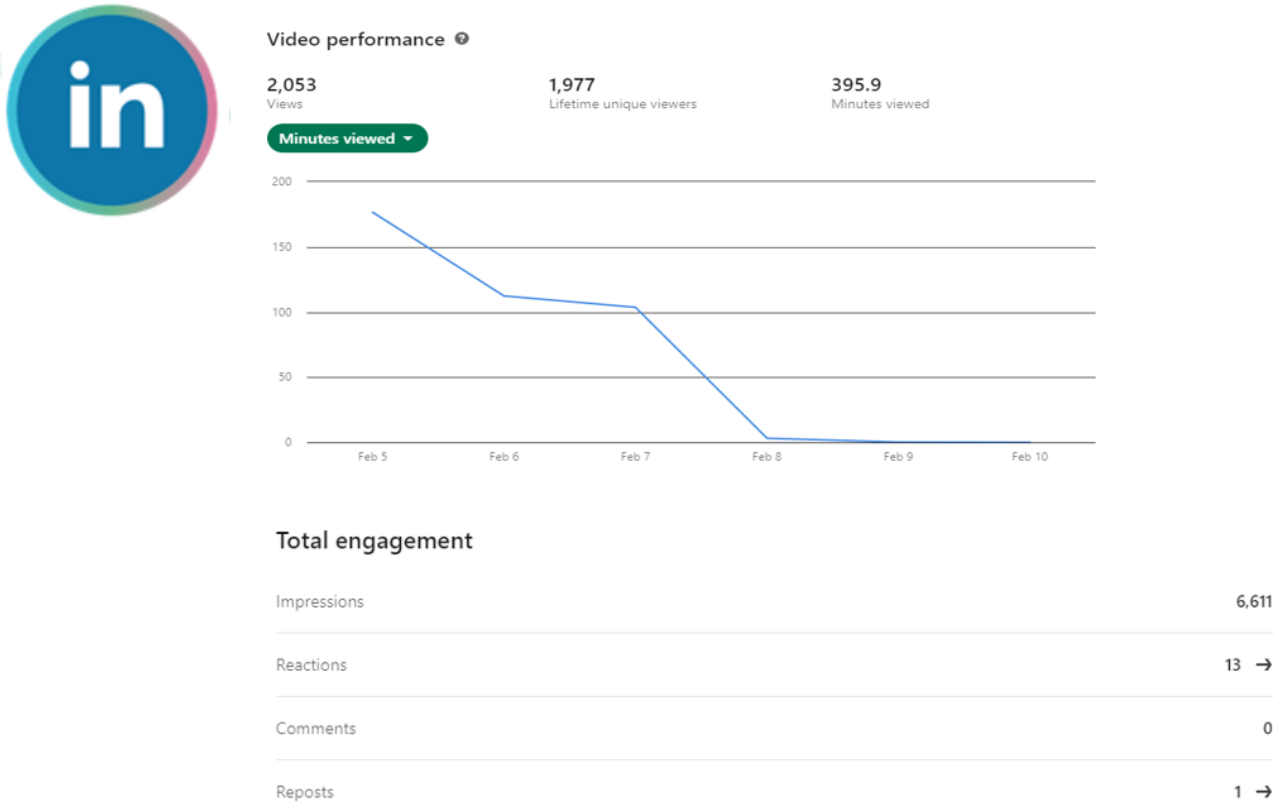


Figure 18. Official video sponsored metrics on LinkedIn

According to the video performance more than 2000 views were recorded along with more than 6.6 k post impressions. The campaign run for less than a week and these numbers were considered impressive in order to reach our KPIs.

The Facebook campaign showed some even more impressive results with over 14k reach, with the most dominant age group being 45-54 y.o. Facebook campaign was actually even more successful than the one used on LinkedIn, where with 1/10 of the budget we resulted in more than double of the audience.

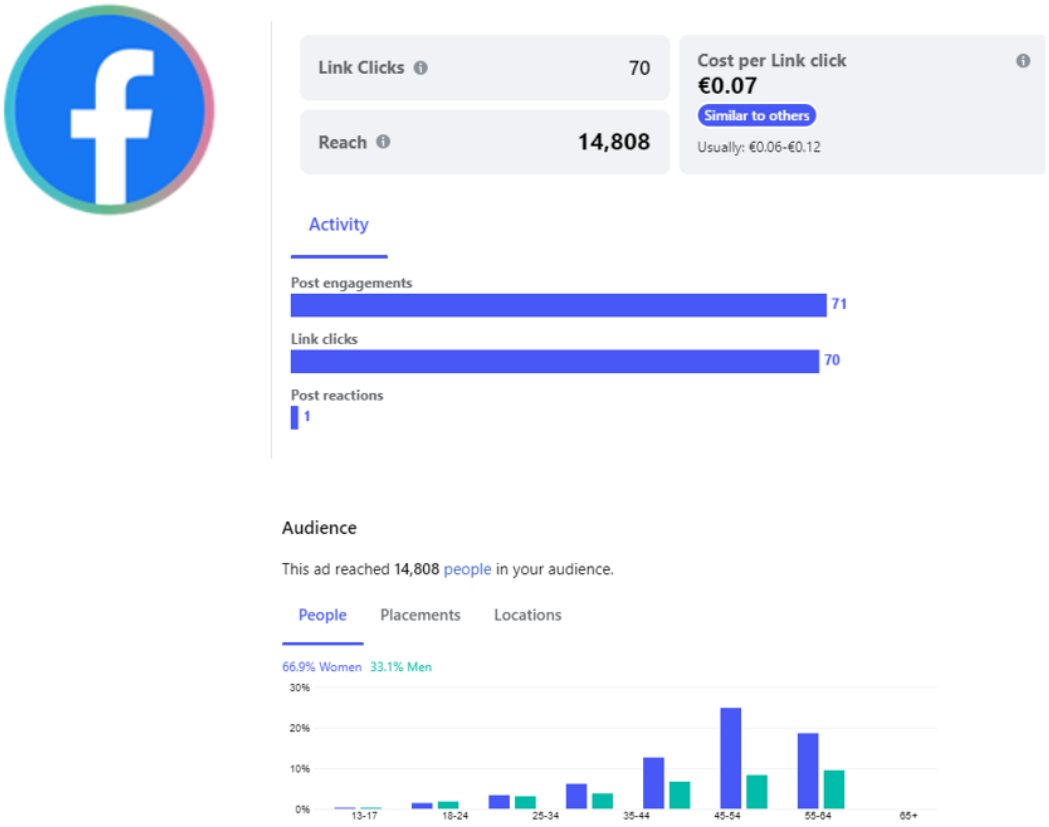
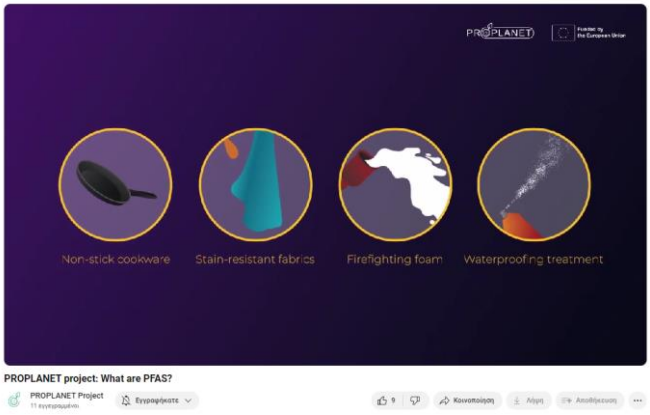


Figure 19. Official video sponsored metrics on Facebook.

4.12.2. PROPLANET Infographic Videos

To reach a wider audience, it was considered essential to create 3 more infographic videos that enable people with no scientific background to understand PROPLANET concept. These infographic videos were created by HOLOSS, and all of them can be found in PROPLANET's YouTube channel.



Other videos, such as interviews and footage from laboratories and facilities, may also be developed in the future, depending on the workload and available time of PROPLANET partners. These videos will be accessible in the dedicated section of the PROPLANET website, as well as on YouTube, and will be shared through the project's social media platforms.

Figure 20. PROPLANET infographic videos

5. Dissemination activities

The dissemination efforts within PROPLANET include a variety of initiatives to share project insights and results. The project's website acts as a central resource, offering detailed information about PROPLANET, such as its goals, research initiatives, consortium participants, and findings. Workshops and training sessions are organised to support knowledge exchange and capacity building among stakeholders. Partnerships with relevant organisations and stakeholders are cultivated to enhance cooperation and amplify the project's impact. Participation in conferences and exhibitions facilitates the presentation and discussion of PROPLANET's findings within scientific and industry circles. Publications in peer-reviewed journals help disseminate scientific knowledge and research outcomes. Clustering activities involve engaging with other related projects to foster collaboration, knowledge sharing, and synergies. Regular newsletters and press releases keep the target audience informed about project developments, accomplishments, and upcoming events. Through these varied dissemination activities, PROPLANET aims to maximise the visibility, impact, and engagement related to its research on bio-based coatings and the replacement of harmful PFAS.

Figure 21. PROPLANET's dissemination tools.

5.1. PROPLANET website

Although the website is currently categorized under the communication toolkit in this deliverable, its role extends well beyond mere communication. It not only communicates the project's scope, objectives, and expected outcomes but also plays a critical role in supporting various aspects of the project.

The website functions as a central hub for disseminating project results, enabling target audiences—including stakeholders, academia, and the general public—to access updates and outcomes. It features a user-friendly interface where project results, reports, publications, and other resources can be shared and easily accessed. This centralisation of information promotes transparency, accessibility, and knowledge sharing. Hence, in future references, information related to the website will be a key component of the communication strategy, specifically addressed in Section 4.5.

Its importance in disseminating project results and enhancing engagement should be explicitly recognized and integrated into the project's communication activities.

5.2. PROPLANET Workshops and Training Activities

Throughout the implementation of PROPLANET, several workshops and training sessions will be organised to equip participants with the skills and knowledge necessary to effectively contribute to the project's goals. These training activities will include a variety of formats, such as workshops, seminars, online courses, and mentoring sessions. They provide a platform for participants to exchange knowledge and ideas, as well as common challenges related to the workshop's subject, promoting collaboration and mutual learning. During this period 2 training events were identified.

Table 3. PROPLANET training workshops

Partner	Activity Title	Type	Date, Place	Place
IDE	ECOSYSTEX	Participation	06/10/23	online
AITEX	Presentation of PROPLANET project concept on a webinar (Futuras restricciones de uso de productos químicos y soluciones - *Restricted use of chemicals in the future and linked solutions)*	Participation	4/4/2024	online

IDENER introduced PROPLANET concept during the ECOSYSTEX event on 6/102023, online, in front of the ECOSYSTEX community.

On April 4, 2024, AITEX presented the PROPLANET project concept during the webinar "Futuras restricciones de uso de productos químicos y soluciones" ("Restricted use of chemicals in the future and linked solutions"), participating online.

PROPLANET plans to host at least two national and international workshops. The consortium members have been consulted regarding their availability and willingness to participate as invited speakers. TECNALIA, EXELISIS, AITEX, IDENER, NILU, and RuKa Innovation have been identified as potential contributors, setting the groundwork for planning future activities where they will share their expertise.

5.3. PROPLANET Visits

During November 2023, TECNALIA's team had the pleasure of visiting the NSG Group facilities at Lathom and St. Helens. During their visit, they engaged in productive and insightful discussions with the Wet Chemistry Team. The conversations focused on the innovative coatings for the glass sector that they are developing as part of the PROPLANET Project. Potential opportunities for further collaboration were also discussed in this exciting area.

Figure 22. TECNALIA's visit at PLK facilities (UK)

Finally, on May 27, 2024, NIC warmly welcomed students from the Faculty for Polymer Technology (FTPO) to their laboratory in Ljubljana, Slovenia. This event provided the students with an opportunity to gain hands-on experience and insights into advanced polymer research and applications. NIC organized a comprehensive tour and presentation, showcasing their cutting-edge facilities and ongoing projects, aiming to inspire and educate the next generation of polymer technology professionals. Figure 23 pictures from this training workshop are presented.


Figure 23. Students' visit in NIC facilities (Slovenia).

5.4. PROPLANET Conferences/ Exhibitions

In the framework of PROPLANET project, partners have participated in 23 dissemination activities including 11 **conferences, 1 expo, 3 training sessions, 3 clustering activities, 2 Collaboration with EU-funded projects, 1 TV show** (Table 4).

All events are valuable opportunities to showcase the project's research findings, innovations, and advancements in the field of bio-based coatings. Partners have successfully presented the PROPLANET's capabilities and all of them have actively utilised the PROPLANET materials (flyers, colors, logo, etc). By participating in conferences, partners disseminated their knowledge & insights, engaged with industry experts, scientists, and stakeholders, and contributed to the broader scientific community.

International exhibitions provide opportunities to showcase PROPLANET's technologies, products, and solutions to a broad audience, including potential end-users, industry professionals, and decision-makers. Attending these conferences and exhibitions enhances the project's visibility and fosters networking, collaboration, and potential commercialisation opportunities.

During 18 months of active dissemination activities, PROPLANET partners have already proved their high interest in participating in several events and continue to be involved in all PROPLANET dissemination & Communication efforts. Pictures from some of the past events that the PROPLANET consortium attended are included below.

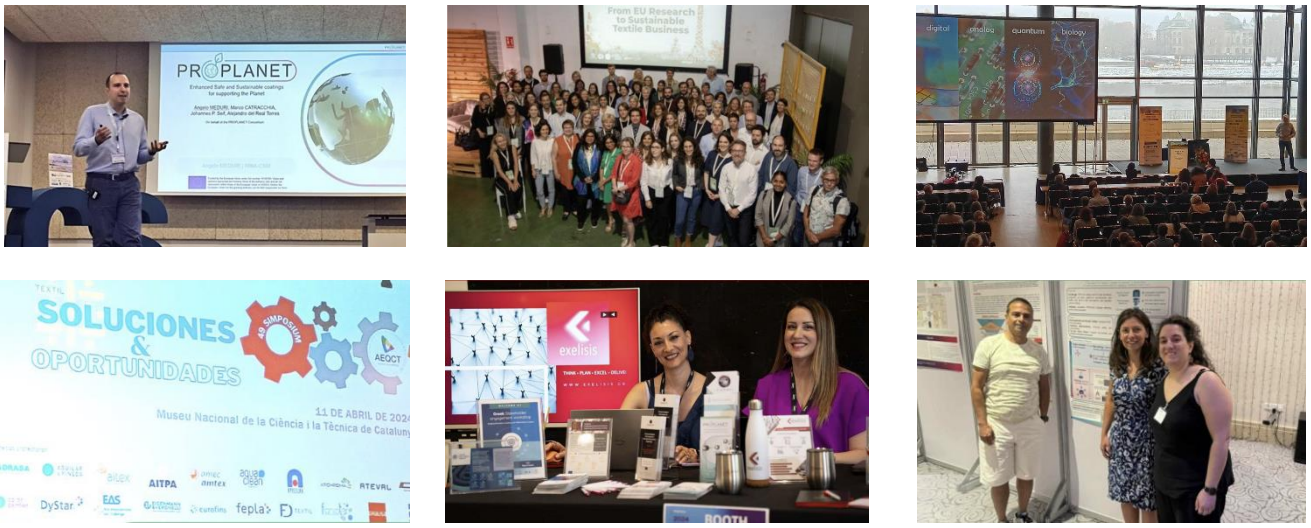


Figure 24. Past Dissemination Activities.

The following table summarises the PROPLANET dissemination activities during the first 18 months of the project.

Table 4. Past Dissemination activities.

Type of Activity	Partner	Activity Title	Role P/O	Date, Place	Website
Clustering Activities	AITEX	TECHTEXTIL	P	23-25/4/24, Frankfurt (DE)	Link
	EXELISIS	Meeting with IRISS coordinator	O	18/05/23 Online	-
	EXELISIS, IDE, TECNALIA	1st Cluster Meeting with BIO-SUSHI, TORNADO, ZEROF	P	14/05/24, Online	
Collaboration with EU-funded projects	AITEX, NIC	ECOSYSTEX Conference	P	19-20/10/23, Barcelona (SP)	Link
	HOLOSS	Training for SMEs: Safe-and-Sustainable-by-Design tools and case studies	P	22/09/23, Online	Link
	NovaM	nanoSAFE	O	05-09/06/23, Grenoble (FR)	Link
	TECNALIA	European Silicon Days	P	10-12/07/23, Montpellier (FR)	Link
Conferences	AITEX	X congers de I+d+i Campus d'Alcoi (UPV)	P	05/07/23, Alcoi-hybrid) (SP)	Link
	RINA	SUSGEM2023	P	01-04/10/23, Castello de la Plana (SP)	Link
	NIC	TBMCE 2023 - Challenges and development trends for the transition to a circular economy	P	06-08/09/23 Portorož, (SI)	Link
	NIC	SKD 2023 - 29th annual meeting of Slovenian Chemical Society	P	13-15/09/23, Portorož, (SI)	Link

	HOLOSS	SETAC organized the Green Deal SSbD Consultation on "Advancing safety and sustainability of chemicals through science-based strategies: service checks, gaps, bottlenecks, and the way forward"	P	2/10/23, Online	Link
	AITEX	ADD-ITC2023	P	30/11/23-01/12/23, Dresden	Link
	NIC	Socratic lectures 2023	P	09/12/23, Online	Link
	AITEX	Presentation of PROPLANET project concept on a Flash-Talk (Soluciones para la reducción del consumo de agua y la presencia de PFAS en procesos de acabado textil - Solutions to reduce water consumption and presence of PFAS in textile finishing processes).	P	11/04/24, Terrassa-Barcelona (SP)	Link
	AITEX	18th European Textile Platform Annual Conference	P	14-15/05/24 Mechelen (BE)	Link
	TECNALIA	Surface Technology Fair in Stuttgart (Germany)	P	05-06/06/24 Stuttgart (DE)	Link
	NovaM, NILU	Materials Week 2024	O, P	17-21/06/24 Cyprus	Link
	NIC	ISCRE 28 INTERNATIONAL SYMPOSIUM ON CHEMICAL REACTION ENGINEERING 2024	P	16-19.6.2024 Turku, Finland	Link
Education and Training Event	IDE	ECOSYSTEX	P	06/10/23, Online	-
	AITEX	Presentation of PROPLANET project concept on a webinar (Futuras restricciones de uso de productos químicos y soluciones - Restricted use of chemicals in the future and linked solutions)	P	04/04/24, Online	Link
Others	HOLOSS, EXELISIS	ECOSYSTEX - General Assembly	P	08/11/24, Online	-

NIC	Faculty for polymer technology - FTPO students visit the NIC laboratory	O	27/5/24, Ljubljana (SI)	-
TEC, PLK	Visit at PLK premises	O	10/11/23 UK	NA
NIC	Presentation of PROPLANET project concept and results on Slovenian National TV (show "Ugriznimo zunanost")	P	14/12/24, Ljubljana (SI)	Link

The PROPLANET consortium has planned additional dissemination activities to enhance the project's visibility and impact. Partners will take part in conferences and exhibitions focused on bio-based coatings. Partners will engage in discussions, network with industry experts, and aid in spreading knowledge throughout the sector.

Table 5. Upcoming Dissemination activities.

Partner	Event	Date: DD/MM	Location	Website
RINA & TECNALIA	International Sol-Gel Conference, 2024	1-6/09/24	Berlin	LINK
AITEX	XI congreso de I+d+i	04/07/24	Alcoi, Spain	LINK
TECNALIA	IEEE Nanotechnology - Special Invited Session "Hydrophobic, Oleophobic and/or Icephobic nanostructured surfaces"	11/07/2024	Gijon (Spain)	LINK

5.5. PROPLANET Newsletters

PROPLANET newsletters will be published biannually, providing a comprehensive and structured approach to project communication. These newsletters will engage stakeholders, disseminate project outcomes, promote events, and foster collaboration. Specifically, the PROPLANET newsletters will:

- Provide updates on the project's progress, activities, and milestones.
- Disseminate results, including research findings, innovative solutions, and success stories.
- Share knowledge and expertise, offering insights, lessons learned, and best practices.
- Promote events, whether organized by PROPLANET partners or involving PROPLANET consortium participation.
- Encourage collaboration with other projects, organizations, or stakeholders.
- Stimulate active engagement.
- Support project promotion and visibility.
- Enhance networking opportunities.

The following table outlines the six issues expected to be released over the project duration. Currently Issue 1 & 2 have been concluded successfully receiving positive comments & leading to inspiring conversations. This month issue 3 is published and shared in all PROPLANET platforms.

Table 6. Expected Newsletter Issues for the PROPLANET project.

Issue	Expected month of publication
✓ **Newsletter Issue 1**	June 2023
✓ **Newsletter Issue 2**	December 2023
✓ **Newsletter Issue 3**	June 2024
• **Newsletter Issue 4**	December 2024
• **Newsletter Issue 5**	June 2025
• **Newsletter Issue 6**	December 2025

Newsletter Issue 1

Figure 25. First PROPLANET Newsletter.

Newsletter Issue 2

Figure 26. Second PROPLANET Newsletter.

Newsletter Issue 3

Figure 27. Third PROPLANET Newsletter.

5.6. PROPLANET Press Releases

Press releases are a powerful tool for EU projects to communicate with the media, stakeholders, and the public. They enable the distribution of news, enhance project visibility, disseminate results, engage stakeholders, and contribute to policy influence. By distributing press releases, PROPLANET will share its story and maximise its impact.

According to the input provided by the PROPLANET partners the following magazines have been collected, offering possibilities for press releases announcement.

Table 7. Possible newsletters/magazines that PROPLANET could be disseminated.

Title	Description
AITEX Review	Online Magazine highlighting the advancements in the textiles sector (https://www.aitex.es/magazine/?lang=en)
REVISTA DE QUÍMICA E INDUSTRIA TEXTIL	Magazine with four annual issues, aims to report on both national and international news related to the textile sector. (https://www.aeqct.org/instrucciones-de-autor/)
La Razon	La Razón is a daily newspaper based in Madrid, Spain (https://www.larazon.es/)
Industria Química	Online blog that announces regular reports (https://www.industriaquimica.es/articulos/reportajes)
Diario de Sevilla	Online newspaper (https://www.diariodesevilla.es/)

Due to the assistance provided by our partners TECNALIA, AITEX, EXELISIS, NILU and IDENER, it is also possible to translate any issues should it be needed in other languages, such as Spanish, Greek, Norwegian or Italian.

Currently our first press release is out in English and translated in Spanish in order to be shared in a Spanish newspaper.

(a) (b)

Figure 28. First PROPLANET press release in (a) English and (b) Spanish.

5.7. PROPLANET Publications

In terms of Open Access in Scientific Publications, PROPLANET is aware of its obligation of ensuring open access to all peer-reviewed scientific publications relating to its results via an OpenAIRE compliant repository (i.e. Zenodo) that facilitates the management of the project data according to FAIR principle. The overall ambition is that these practices will increase the visibility and reusability of the research output and the reproducibility and replicability and, in general, the excellence and impact of the project outcomes.

As part of dissemination within the project, all partners involved have been informed about the guidelines regarding the use of the EU flag and emblem when submitting scientific publications. It is crucial for the partners to adhere to these guidelines to ensure compliance with the European Union's branding and communication regulations. By incorporating the EU flag and emblem in their publications, the partners demonstrate their acknowledgement of the project's funding and support from the European Union. This adherence to branding guidelines not only maintains consistency but also highlights the project's connection to the EU and its commitment to promoting research and innovation across Europe.

Funded by the European Union

Emblem:
"Funded by the European Union. 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."

Table 8. Already accepted publications.

Partner	Title	Journal / Other	Impact factor	Year	DOI
NIC	Unveiling PFAS-free Solutions for Hydrophobic and Oleophobic Textile Coatings	Proceedings of 10th Socratic Lectures 2024	NA	2024	10.55295/PSL.2024.l
NILU	A template wizard for the cocreation of machine-readable data-reporting to harmonize the evaluation of (nano)materials	nature protocols	14.8	2024	10.1038/s41596-024-00993-1

The first publication of PROPLANET was published by NIC. Kemijski inštitut - National Institute of Chemistry recently engaged in enlightening Socratic lectures Conference proceedings, delving into the challenges associated with PFAS and exploring alternative avenues beneficial to the textile industry. This publication dives into a detailed theoretical review focusing on PFAS alternatives, specifically addressing strategies to enhance the hydrophobicity/oleophobicity attributes of textiles, providing valuable knowledge and potential solutions in this vital domain. The publication may be found HERE.

The second publication was published by NILU in Nature protocols (2 years I.F.=14.8). This publication streamlines the collection of experimental metadata and data using community-approved templates, ensuring that data generated by various instruments (such as spectrometers, flow cytometers, microscopes, and plate readers) are interconnected. Standard operating procedures (SOPs) and experimental workflows are also linked to these templates, promoting data harmonization and interoperability. The publication may be found HERE.

Figure 29. First PROPLANET publication in Socratic Lectures and in Nature protocols.

The open access publications are expected to be included in the PROPLANET Zenodo community that was created. This forum will act a repository for all upcoming publications as well as reports and newsletter/ press releases announced during the project implementation.

Some potential topics that could form publication manuscripts are summarised in the following table. However, this planning will be updated and included in the next Dissemination and communication related deliverable.

Table 9. Potential publication topics.

No	Potential topics for manuscripts
Publication 1	Results on SSbD coatings development (NIC)
Publication 2	In silico toxicological models (NILU/NM)
Publication 3	Environmental Fate models (NM)
Publication 4	First-Principles-based-models (RINA)
Publication 5	Data-driven algorithms with AI (IDE)
Publication 6	LCA/LCC results (HOL)
Publication 7	PROPLANET Replication tool (IDE)
Publication 8	Toxicological evaluation of PFAS-free coatings (NILU)
Publication 9	Advanced *in vitro* models for hazard assessment of PFAS-free coatings
Publication 10	Review paper on hazard assessment of PFAS and their alternatives for coating materials
Publication 11	Development of sol-gel based PFAS-free coatings with hydrophobic properties (TEC)

5.8. PROPLANET Clustering Activities & Collaborations

Clustering activities involve bringing together relevant stakeholders, organisations, consortia or initiatives to foster collaboration, exchange knowledge, and achieve common goals. These activities can include:

- **Networking and Communication**: Facilitating communication channels among project participants to share information, best practices, and experiences.
- **Workshops and Conferences**: Organizing events where experts and stakeholders can come together to discuss challenges, exchange ideas, and explore potential solutions.
- **Knowledge Sharing**: Promoting the sharing of knowledge, resources, and expertise among project partners through various platforms such as online portals, databases, or specialised publications.
- **Joint Research and Development**: Encouraging collaborative research activities to address shared objectives, leveraging the strengths and expertise of different partners, respecting at the same time confidentiality aspects.
- **Capacity Building**: Offering training or knowledge transfer activities to enhance the skills and capabilities of project participants.

- **Dissemination and Outreach**: Promoting project outcomes and results to a broader audience, including policymakers, industry stakeholders, and the general public.
- **Stakeholder Engagement**: Involving relevant stakeholders, such as industries, companies, research institutions, NGOs, and policymakers, in the project activities to ensure diverse perspectives and maximise impact.
- **Cross-sectoral Collaboration**: Encouraging collaboration between different sectors or disciplines to foster innovation, interdisciplinary approaches, and address complex challenges.
- **Evaluation and Impact Assessment**: Conducting assessments and evaluations to measure the effectiveness, impact, and sustainability of the project's activities and outcomes.

5.8.1. PROPLANET Sister Projects and beyond

Currently our sister projects have been identified under topic “HORIZON-CL4-2022-RESILIENCE-01-23 - Safe- and sustainable-by-design organic and hybrid coatings (RIA)”, as well as the IRISS project funded under “HORIZON-CL4-2021-RESILIENCE-01-08 - Establishing EU led international community on safe- and sustainable-by-design materials to support embedding sustainability criteria over the life cycle of products and processes (CSA)”.

Currently, communication with the cluster project has been initiated, marking the beginning of an ongoing process that is anticipated to establish and strengthen collaborative efforts between our respective initiatives. By reaching out and establishing connections with these relevant projects, we aim to foster a shared understanding, exchange valuable insights, and explore opportunities for joint activities and mutual support.

The ongoing communication with our sister projects represents a significant step towards building a collaborative network and promoting synergies within our collective endeavours. It serves as a platform for sharing knowledge, experiences, and best practices, facilitating a rich exchange of ideas and fostering a sense of community. Through regular interactions, we aspire to enhance coordination, align our efforts, and leverage the collective expertise and resources available across our projects.

Below, more information is provided for these projects as well as links to access more detailed descriptions of the scope, objectives, impacts and consortia.

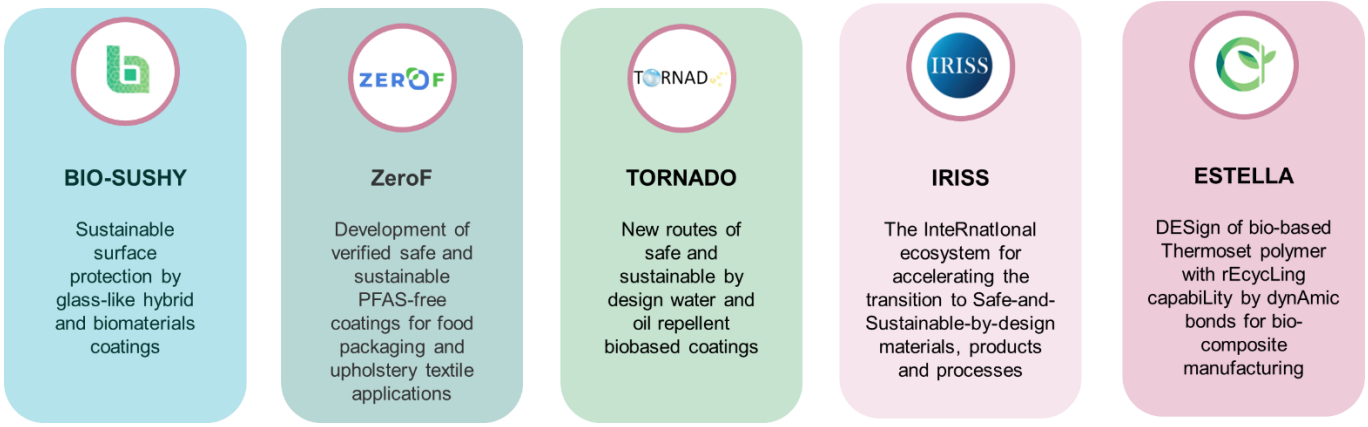


Figure 30. PROPLANET relevant projects.

BIO-SUSHY: Sustainable surface protection by glass-like hybrid and biomaterials coatings (GA no 101091464)

The BIO-SUSHY project presents a comprehensive framework for developing innovative organic and hybrid coatings that serve as alternatives to polluting PFAS substances. These coatings aim to exhibit both hydrophobic and oleophobic properties and will be produced using established processing technologies, namely bio-based thermoplastic powder and hybrid sol-gel. Advanced functionalisation will be achieved through the incorporation of bio-based additives into the formulations.

Validation of the coatings' applications at a pre-industrial scale will be conducted across diverse domains such as textiles, glass, cosmetics, and food packaging. The selection of materials, formulation development, and coating processes will align with a customised SSbD strategy. This strategy will assess the risk toxicity of materials, the potential for hazardous leachate, and the overall life cycle assessment to determine economic and environmental impacts along the value chains. To facilitate the SSbD strategy, physics-based and data-driven modeling tools will be employed to predict both the repellent properties of coating surfaces and the leaching mechanisms of composites. These modeling activities, combined with experimental measurements, will contribute to the development of a comprehensive computational tool. This tool will encompass data collection, curation, and harmonisation within an annotated infrastructure. Its purpose is to support training, provide access to existing data repositories and marketplaces, and contribute to a broader dissemination and valorisation strategy. This strategy encompasses not only scientific and economic aspects but also paves the way for the certification of materials and products, positioning them within the pre-standardisation landscape.

Click the link to access the BIO-SUSHY website.

First communication with BIO-SUSHY team has kick started and will be updated as the project progresses.

ZeroF: Development of verified safe and sustainable PFAS-free coatings for food packaging and upholstery textile applications (GA no: 101092164)

ZeroF is dedicated to the development of SSbD coatings. These coatings aim to replace PFAS compounds commonly found in food packaging and upholstery textiles value chains. The primary focus is on creating coatings with limited water absorption and excellent oil/grease resistance for packaging, as well as high water and oil repellency for textiles.

To achieve this, ZeroF utilises two chemistries as replacements for PFAS compounds. Cellulose fatty acid esters are employed for packaging, while silane-based organic-inorganic hybrids are utilised for textiles. The project encompasses three distinct work streams: food packaging, upholstery textiles, and SSbD analysis. In order to reduce reliance on in-vitro testing and enhance efficiency, computational methods are employed to model the toxicology and performance of the developed chemistries in a virtual environment. Moreover, the project includes the development of a certification and regulatory roadmap, ensuring compliance with relevant regulations and promoting the safe adoption of the developed coatings. Concludingly, the SSbD models created during this project are designed to be easily adaptable to other sectors beyond the project's scope. This adaptability allows for the potential application of SSbD principles in various industries, promoting widespread adoption of safe and sustainable coating alternatives.

Click the link to access the ZeroF website

TORNADO: New routes of safe and sustainable by design water and oil repellent biobased coatings (GA no: 101091944)

The primary objective of the TORNADO project is to support the transition towards a safe circular economy by influencing the design, production, usage, and end-of-life treatment of products. To achieve this, the project focuses on the development of new organic and hybrid coatings that are non-toxic and aligned with the principles of Safe and Sustainable by Design (SSbD).

The project aims to create coatings that are free from PFAS compounds and can be applied using various industrial processes, depending on the specific industry involved. The performance of these novel coatings will be validated in real-world industrial environments to ensure they meet or exceed the water and oil repellence capabilities of PFAS coatings. Additionally, thorough testing will be conducted to assess their compliance with the key specifications and requirements for textiles, packaging, and kitchenware, such as waterproofness, oxygen barrier, and durability. To enhance efficiency and accessibility, the project will develop computational tools that can interface effectively with publicly accessible and accepted QSAR-models (Quantitative Structure-Activity Relationship). This development will facilitate the in-silico prediction of crucial physiochemical properties, toxicological endpoints, and degradation, providing a user-friendly approach for the prediction of coating performance and safety characteristics.

Click HERE to access more information.

IRISS: The InteRnatIonal ecosystem for accelerating the transition to Safe-and-Sustainable-by-design materials, products and processes (GA no: 101058245)

The IRISS project has set its sights on establishing strong connections, fostering synergy, and driving transformation within the Safe-and-Sustainable-by-Design (SSbD) community both in Europe and globally. The project's ultimate goal is to embrace a comprehensive lifecycle approach that integrates safety, climate neutrality, circularity, and functionality right from the early stages of designing and manufacturing materials, products, and processes.

Aligned with the objectives of the EU Green Deal, EU Chemicals Strategy for Sustainability, and UN Sustainable Development Goals, the project is firmly rooted in the SSbD concept. This approach emphasises early intervention within the supply chain to provide products that contribute to circular models while avoiding any properties that could potentially harm human health or the environment. The integration of circularity, climate neutrality, functionality, and safety across the life cycle of materials, products, and processes is a central tenet of the SSbD philosophy. Working closely with industry stakeholders, the IRISS project will develop a series of roadmaps to drive research, innovation, and policy implementation. These roadmaps will address specific needs and challenges within key value chains, including textiles, construction, electronics, energy, automotive, and packaging. By actively collaborating with industry partners, the project aims to not only foster advancements but also demonstrate the practical requirements necessary to achieve the project's overarching objectives.

Click the link to access the IRISS website.

First communication with IRISS team has kick started and will be updated as the project progresses.

ESTELLA: DESign of bio-based Thermoset polymer with rEcycLing capabiLity by dynAmic bonds for bio-composite manufacturing (GA no: 101058371)

ESTELLA is an EU funded project targeting to enhance the recyclability of thermosetting composites, which are traditionally challenging to recycle. The project focuses on designing new bio-based epoxy resins that incorporate Covalent Adaptive Network technology into their structure which allows them to be

easily reprocessed or re-polymerized back into their original monomers and fibers. Similarly, this innovative approach will be applied to existing fossil-based epoxy formulations, facilitating the recycling of thermosets into new products and the recovery of fibers. The research goes one step further by utilising renewable-origin fibers (nano-cellulose and hemp) as reinforcement in the production of thermoset composites.

ESTELLA will ensure that the developed materials can be efficiently and safely separated into their components by exploring diverse recycling methods—chemical, biological, and mechanical and the effectiveness of these recyclable materials will be tested through economically and environmentally sustainable manufacturing methods (out-of-autoclave). Additionally, the project aims to develop new bio-composites that not only improve recyclability but also meet the requirements of various sectors such as construction and mobility. Significant efforts will be made to promote the industrial adoption of the developed technologies and materials, with considerations for safety, economic feasibility, regulatory compliance, and intellectual property rights.

Click HERE to access more information.

5.8.2. NoPFAS Cluster

The cluster meeting of the No-PFAS coatings sister projects has kicked off on May 14th, 2024. Partners from BIO-SUSHY, ZEROF, TORNADO and PROPLANET projects convened for the first common meeting, under a common objective: developing PFA-free alternative solutions. Discussion focused on the projects 'goals, potential challenges, and future collaboration strategies. Special thanks were extended to BIO-SUSHY team for organizing the event.

A common room on Teams was created, acting as a common place to exchange files and ideas with the noPFAS community.

Figure 31. NoPFAS cluster kick off meeting and agenda.

5.8.3. Other initiatives and Collaborations relevant to PROPLANET' s Scope

The PROPLANET project is committed to establishing meaningful connections and collaborations with a range of initiatives, including relevant associations, communities, and technology platforms. By forging these linkages, the project aims to leverage existing networks, expertise, and resources to enhance its impact and contribute to its overarching objectives.

One avenue for collaboration is through relevant associations that align with the goals and focus areas of the PROPLANET project. These associations may include industry-specific organisations, or research institutions that are actively involved in promoting sustainable practices in coating applications, circular economy principles, or other related areas. By linking with these associations, PROPLANET can tap into their knowledge base, leverage their networks, and benefit from their experiences and best practices. This collaboration enables the project to gain valuable insights, broaden its reach, and foster synergistic efforts towards shared sustainability goals.

Furthermore, PROPLANET recognises the importance of engaging with communities that are directly impacted by its objectives. This may include local communities, consumer groups, or stakeholder organisations that play a crucial role in shaping sustainable practices and driving societal change. By actively involving these communities, the project can gain a deeper understanding of their needs, challenges, and aspirations. Through collaboration, PROPLANET can co-create solutions, promote awareness and education, and ensure that the project's outcomes are aligned with the interests and well-being of the communities it serves.

In addition, PROPLANET seeks to establish connections with relevant technology platforms. These platforms may encompass digital tools, online platforms, or innovation hubs that focus on sustainable technologies, data sharing, or knowledge exchange. By partnering with these technology platforms, the

project can leverage their technological capabilities, access cutting-edge solutions, and facilitate the dissemination and adoption of innovative approaches and practices.

The following table provides more information about some of the already identified initiatives, based on data provided by the consortium, after filling in the D&C questionnaire.

Table 10. Relevant initiatives to PROPLANET' s scope.

Title	Website	Description
Textile ETP	https://textile-platform.eu/	The European Technology Platform for the Future of Textiles and Clothing is the largest European open expert network of professionals involved in textile and clothing-related research and innovation.
ECOSYSTEX	ECOSYSTEX LinkedIn	A community of EU funded projects, dealing with textile circularity and sustainability.
NEWSKIN	www.newskin-oitb.eu/	Innovation Eco-system to Accelerate the Industrial Uptake of Advanced Surface Nano-Technologies.
Bionanopolys	https://www.bionanopolys.eu	Open Innovation test bed Development of safe nano-enabled bio-based materials & polymer bio-nanocomposites
LIFE ANHIDRA	https://www.jeanologia.com/lifeanhidra/	EU project focusing on Unique and sustainable system for producing garments without water discharges
SYMSITES	https://symsites.eu/	EU project focusing on Industrial Urban symbiosis and its social, economic and environmental impact on different European regions.
MIRIA	https://www.miriaproject.eu/	EU project focusing on the development of antimicrobial, antiviral, and antifungal nanocoatings for everyday surfaces
GREEN-LOOP	https://www.greenloop-project.eu/	The GREEN-LOOP project addresses novel bio-based materials solutions leading to new manufacture tools, energy efficiency improvements and sustainable value chains.
BIOMAC	https://www.biomac-oitb.eu/	Open Innovation Test bed capable of upscaling the market - readiness and production of Nano structured bio-based materials.
FreeMe	https://www.freeme-project.eu/	EU project that proposes the metallisation of polymeric (plastic or resins) surfaces eliminating the use of hexavalent chromium (Cr6+) and palladium (Pd) from the Plating on Plastics process, based on a safe and sustainable by design strategy.
EURATEX	https://euratex.eu/	EURATEX focuses on clear priorities for the textile sector: an ambitious industrial policy, effective research, innovation and skills development, free and fair trade, and sustainable supply chains.
European Materials Modelling Council (EMMC)	https://emmc.eu/	The EMMC considers the integration of materials modelling and digitalisation critical for more agile and sustainable product development.

PROCESS4PLANET	https://www.aspire2050.eu/p4planet/about-p4planet	A partnership aiming is to transform the European process industries to achieve circularity and overall climate neutrality at the EU level by 2050 while enhancing their global competitiveness. P4Planet is a European co-programmed public-private Partnership established between A. SPIRE – as the private entity – and the European Commission.
PROMETIA	https://prometia.eu/	PROMETIA is an international non-profit association promoting innovation in mineral processing and extractive metallurgy for mining and recycling of raw materials.
Oekotex	https://www.oeko-tex.com/en/	Oeko-Tex is a registered trademark, representing the product labels and company certifications issued and other services provided by the International Association for Research and Testing in the Field of Textile and Leather Ecology
INTEGRANO	https://www.integrano.eu/	Development of a standardised approach to evaluate nanomaterials based on quantitative evidence aligning with current guidelines for Safe and Sustainable by Design (SSbD) encompassing the four stages of the materials development (synthesis, incorporation, social & function)
M2DESCO	https://cordis.europa.eu/project/id/101138397	Creation of cutting-edge, high-entropy-alloy-based multi-component coatings that are toxic-free and sustainable. The new coatings will have predictable functionalities and extended lifespan, aiming to improve wear resistance by 100%, while also providing superior corrosion and oxidation protection.
NOVA	https://eu-nova.eu/Project.html	Development of high-efficiency, eco-friendly, stable and antimicrobial coatings in four main cases (textiles, paints, tactile electronics and hard surfaces.

5.8.4. International Cooperation

The PROPLANET project will address actions related to international cooperation[9] to maximize its impact and effectiveness. By engaging in international collaboration, the project can leverage diverse expertise, resources, and innovative solutions from across the globe. This approach will enhance the development of PFA-free alternative solutions by incorporating best practices and cutting-edge research from different countries. Additionally, international cooperation will enhance the project's visibility and credibility, increasing the potential for widespread adoption and market penetration.

Towards this direction, PROPLANET includes Pilkington as a consortium member, a partner from a non-EU country (UK), chosen for their key expertise in glass production and treatment. PLK's parent company, the globally renowned NSG Group, is one of the largest manufacturers of glass and glazing products for architectural, automotive, and creative technology industries, with premises worldwide (incl. Argentina, Chile, China, Germany, UK, Japan, Malaysia, USA, USA). With over 4,000 patents, PLK embodies the philosophy of continuous improvement, aligning perfectly with PROPLANET's commitment to excellence. Their participation underscores the project's dedication to integrating international expertise and advancing the field through robust global cooperation.

Moreover, the consortium actively participates in international conferences, engaging in networking sessions and B2B meetings to foster collaborations, share knowledge, and explore new opportunities. This section of the report will be further developed in the final version of this deliverable.

[9] *https://research-and-innovation.ec.europa.eu/strategy/strategy-2020-2024/europe-world/international-cooperation_en*

6. Conclusions

During the first half of the PROPLANET project (first 18 months), a variety of dissemination, and communication activities were carried out. Dissemination efforts included establishing the project's identity by creating communication tools such as official templates, brochures, flyers, posters, and roll-ups. Social media accounts were also created and introduced to the public. The official PROPLANET webpage was launched, providing comprehensive information about the project's concept, objectives, impacts, consortium members, clustering activities, and the dissemination and communication toolkit, among other details. Project videos were designed and announced in the PROPLANET YouTube channel.

This deliverable thoroughly analyses and updates the plan for future communication and dissemination activities, detailing upcoming press releases, newsletters, events, workshops, training sessions, publications, and outreach and clustering initiatives. The contents of this deliverable will be expanded and updated in subsequent versions at M36 (D7.11 “Communication & Dissemination Plan”), focusing on adjusting the consortium's communication and dissemination efforts as project results become available.

Any updates to communication materials will be shared with the consortium. The third newsletter will be shortly distributed to relevant audiences via LinkedIn and email. Completed and planned events will be summarised based on consortium responses to dedicated forms. The project's social media platforms and website will be regularly updated with news and information related to PROPLANET. Wherever available, statistics on audience engagement, reach, and demographics will be included, showcasing the project's audience reach. Furthermore, clustering activities will progress more and be reported in subsequent deliverables.