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D8.3 - PRELIMINARY REPORT ON DISSEMINATION AND COMMUNICATION ACTIVITIES

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LIST OF ABBREVIATIONS

Abbreviation	Description
DCP	Dissemination and Communication Plan
D&C	Dissemination and Communication
KPI	Key Performance Indicator
SUPREME	SUstainable nanoPaRticles Enabled antiMicrobial surfacE coatings

1 EXECUTIVE SUMMARY

The deliverable 8.3 outlines the dissemination and communication activities conducted by the SUPREME consortium to raise awareness and disseminate project results. Between the beginning of the project and M24, the project has used several channels such as social media, newsletters, and conferences to engage a wide array of stakeholders, including industrial entities, the scientific community, and policymakers. The current document is a mid-term assessment of these activities, following the structure:

- Section 2: Introduction provides a brief overview of the report's purpose, outlining its scope and context within the project.
- Section 3: SUPREME Project introduces the overall concept of the project, providing context for the relevance and strategic importance of dissemination and communication activities.
- Section 4: Overview of the Dissemination and Communication Strategy restates the primary objectives of SUPREME's D&C approach, including stakeholder engagement, awareness creation, and scientific impact.
- Sections 5 and 6: Communication and Dissemination Activities describes the conducted between M6 and M24, including clustering, events, newsletters, publications, and outreach efforts.
- Section 7: Performance Metrics and KPIs presents key performance figures, including engagement metrics (impressions, clicks, reposts, etc.) and the number of activities implemented compared to targets.
- Section 8: Updated Roadmap for Future Activities outlines the strategy for the next 24 months, detailing how the consortium plans to strengthen engagement, increase content visibility, and address underperforming KPIs through revised actions and realistic targets.
- Section 9: Conclusions summarizes the main achievements and lessons learned so far, while reaffirming the consortium's commitment to refining and scaling up dissemination efforts in the second half of the project.

The key point of the Communication and Dissemination (C&D) strategy previously established in D8.2 was to ensure that the project's outcomes are widespread to the relevant target stakeholders,

at appropriate times, with the most suitable materials and channels. The plan is flexible, and it was already adapted and further improved during the lifetime of the project, namely by integrating new activities in the plan, in alignment with the development of the project, and the stakeholders' interests and needs. Consequently, this D8.3 at M24 is an update to the D8.2 "Dissemination and Communication Plan (DCP)", with all the information of C&D activities in the first half of the project and the required changes in the DCP, that will be finalized in the D8.4 "Final report on dissemination and communication activities" at M48.

2 INTRODUCTION

This D8.3 – Preliminary Report on Dissemination and Communication Activities outlines the dissemination and communication efforts of the SUPREME project up to M24, building on the foundations established in D8.2 – Dissemination and Communication Plan. The primary goal of this deliverable is to document the project's progress in raising awareness and engaging stakeholders, while showcasing the visibility and impact achieved through structured and targeted dissemination and communication activities.

D8.3 presents an update to the initial dissemination and communication framework established in D8.2, integrating lessons learned, refinements based on project advancements, and additional outreach strategies developed over the course of the project. Compared to the early-stage planning in D8.2 (M6), this deliverable reflects two years of implementation (up to M24), highlighting both the successes and the necessary adaptations made to ensure effective stakeholder engagement.

The deliverable begins with a summary of the results achieved during the first 24 months, linking technical progress with dissemination efforts. This is crucial to contextualizing the current status of SUPREME's results and their potential for broad communication through various channels. Following this, the document provides an overview of the dissemination and communication strategy developed to effectively promote the project and its outcomes. The subsequent sections report on activities carried out to date, including dissemination actions and materials developed, events attended, publications, and online engagement. Detailed performance metrics and KPIs are presented to evaluate the effectiveness of the activities and ensure alignment with the project's goals. Finally, the deliverable concludes with a forward-looking plan, outlining the next steps for dissemination and communication efforts in the upcoming project phases. This includes refining strategies, leveraging emerging opportunities, and ensuring continued stakeholder engagement to maximize the impact of SUPREME's innovations. Additionally, the report addresses challenges encountered in dissemination activities, such as adapting content timelines due to project milestones, and how these have been tackled to enhance the effectiveness of SUPREME's outreach.

D8.3 serves as a crucial milestone in SUPREME's ongoing efforts to enhance visibility and foster collaboration, acting as a bridge between the early-stage plans in D8.2 and the comprehensive final report in D8.4 at M48.

3 SUPREME PROJECT

SUPREME project aims to provide an innovative and sustainable solution for our society to overcome the crucial health, economic, and societal challenges associated with the spread of disease outbreaks. Figure 1 illustrates the conceptual framework of the SUPREME project, detailing the integrated approach, starting with the definition of industrial applications and operational boundaries, then focusing on the production, optimization, and scale-up of sustainable nanocoatings. All of this is supported by comprehensive sustainability assessments and industrial validation processes.

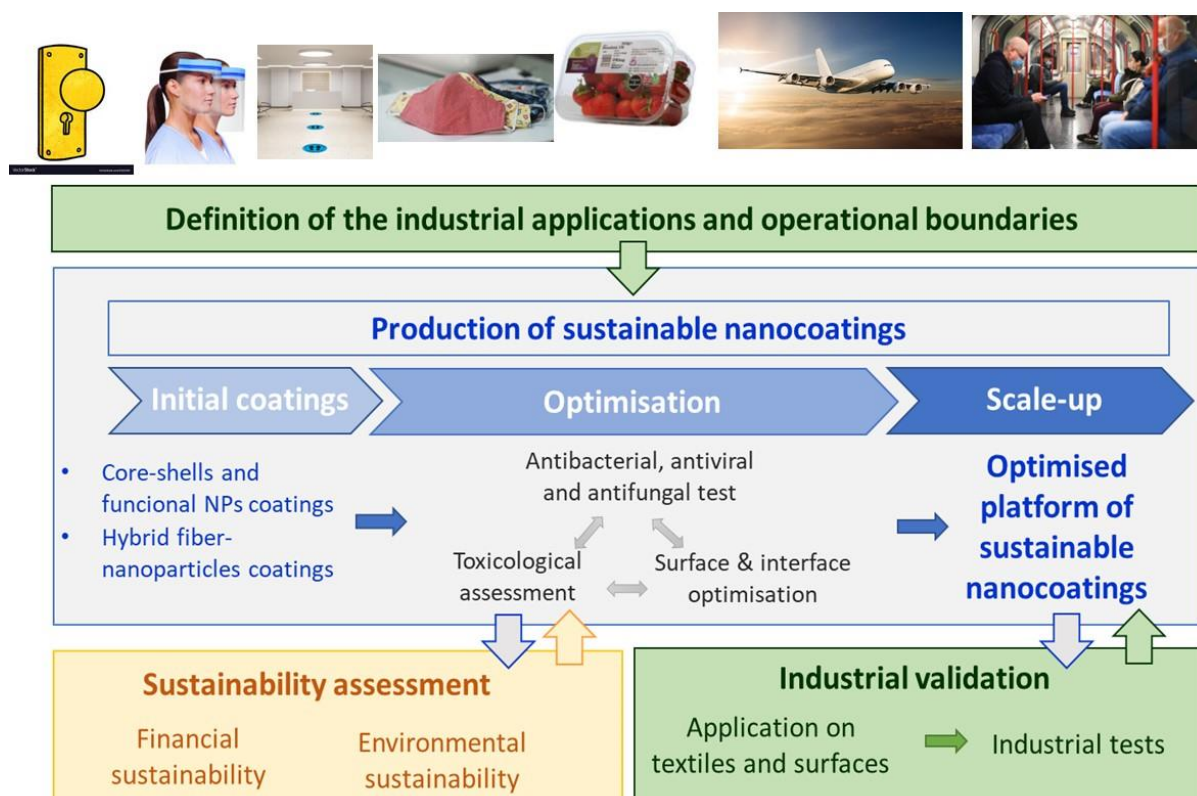


Figure 1. SUPREME overall concept

At M24 of the project, SUPREME has made substantial progress in developing innovative antimicrobial, antiviral, and antifungal nanocoatings tailored for diverse substrates and textiles. Key advancements include the development of titanium dioxide core-shell nanoparticles ($\text{TiO}_2@Ag$), which have been integrated into cellulose matrices and tested using various coating methods, such as plasma coating, spray coating, and pulsed laser deposition in WP2 and WP4. These coatings have demonstrated enhanced stability, antimicrobial functionality, and activation under broader light spectrums, including near-visible light, making them suitable for diverse applications. Significant progress has been made in assessing the coatings' effectiveness against harmful pathogens, including multi-drug-resistant bacteria, fungi associated with healthcare infections, and SARS-CoV-2. However, the development of a comprehensive portfolio of pristine nanoparticles (NPs), core/shell functional nanoparticles, and hybrid fiber nanoparticles is not yet fully achieved. Comprehensive in vitro, in situ, and in silico evaluations are ongoing in WP3, with early results highlighting the coatings'

potential to address microbial threats, albeit with reduced effectiveness compared to other possible materials. Validation under real-world conditions is planned for the later stages of the project.

Durability and adhesion testing on a range of materials, including textiles, metals, and building substrates, have confirmed the coatings' robustness and suitability for industrial applications in WP4. The project has implemented a Sustainable and Safe-by-Design (SSbD) framework, focusing on the safety of both users and the environment. Advanced toxicological assessments on intestinal and lung cell models have guided the refinement of materials to minimize risks, ensuring compliance with safety standards in WP5. These findings are complemented by the optimization of application methods to ensure strong adhesion and consistent performance under various environmental conditions.

Industrial-scale validation has commenced, with partners collaborating to test coatings for applications in the automotive, packaging, and construction sectors in WP6, while environmental sustainability has been prioritized through Life Cycle Assessments (LCA), identifying key impact areas in the production of titanium dioxide nanoparticles and related materials in WP7.

These achievements highlight SUPREME's potential to deliver multifunctional nanocoatings that combine advanced antimicrobial properties with durability, safety, and sustainability, driving innovation across multiple sectors. However, the process of identifying the ideal nanoparticles and nanocoating formulations that surpass state-of-the-art alternatives remains a challenge. This has hindered the advancement of certain project milestones and has impacted the pace of communication and dissemination efforts. Despite these challenges, the consortium remains committed to overcoming these hurdles through rigorous research, collaboration, and iterative testing, ensuring that the project ultimately delivers impactful and innovative solutions that meet its ambitious objectives.

4 OVERVIEW OF THE DISSEMINATION AND COMMUNICATION STRATEGY

The Dissemination and Communication Strategy of the SUPREME project has been designed to effectively raise awareness of the project's objectives, progress, and outcomes while engaging a wide range of stakeholders. This strategy, as outlined in the Dissemination and Communication Plan (DCP) delivered in M6 (D8.2), serves as a comprehensive guide for all consortium partners, ensuring alignment with the project's Key Performance Indicators (KPIs).

The main objectives of the strategy include:

- Informing and engaging key stakeholders, such as researchers, policymakers, industry players, and the general public.
- Promoting synergies with technology developers and fostering collaborations with other EU-funded projects.
- Advancing scientific knowledge while ensuring long-term impact through strategic engagement.

The DCP emphasizes flexibility and adaptability to respond to project developments and includes a range of dissemination and communication tools, such as:

- Project Identity Materials: Logo, templates (Word and PowerPoint), leaflet, poster, and roll-up.
- Digital Tools: A dedicated project website (<https://www.supreme-project.eu/>), social media presence on LinkedIn and X/Twitter, and a News & Events section on the website.
- Publication Channels: Newsletters (every six months), press releases, and scientific publications.
- Event Participation: Clustering activities, collaborations with other EU projects, attendance at relevant conferences and fairs, and organization of two main events:
 - A workshop with EU projects.
 - A final dissemination and exploitation workshop.

Social media, particularly LinkedIn, has been a primary communication channel, serving as a platform to disseminate information and engage with stakeholders. It features regular updates on the project's progress, key milestones, and research activities. The platform also shares announcements and highlights from past and upcoming events, such as conferences, workshops, and consortium meetings, fostering collaboration and visibility. Additionally, posts spotlight consortium partners, promote research findings, and share links to published papers, newsletters, and press releases, ensuring continuous engagement with the scientific community and industry stakeholders. Additionally, SUPREME has published its first scientific paper in *Nanomaterials*, marking a significant milestone in sharing project results with the academic community.

While the D&C strategy has been effective, it has also faced challenges due to delays in technical milestones, impacting the timely generation of dissemination content. To address this, the consortium has adopted a flexible approach, continuously aligning activities with ongoing project developments and stakeholder engagement needs. The strategy will be further refined in future deliverables, including D8.4 (Final Report on Dissemination and Communication Activities), to reflect the evolving scope and achievements of the SUPREME project.

5 DISSEMINATION ACTIVITIES

The dissemination activities of the SUPREME project have been designed to maximize outreach and ensure that project outcomes effectively reach relevant stakeholders, including companies interested in innovative nanocoatings, the scientific community, policymakers, and the general public. These activities build upon the Dissemination and Communication Plan (D8.2) and the insights from the Innovation Eco-System and Stakeholders' Map (D8.1), aiming to raise awareness, foster collaboration, and enhance the visibility of project results.

This section provides an overview of the dissemination activities conducted during the first 24 months of the project, detailing key efforts to engage stakeholders and promote scientific advancements. The reported activities include:

- Clustering with relevant projects to create synergies and maximize outreach.
- Collaboration with EU-funded initiatives to align with broader European research goals.
- Participation in conferences and fairs, where SUPREME partners present research and innovations.
- Organizing education and training events to support knowledge transfer.
- Attending strategic meetings to strengthen engagement with industry and policymakers.
- Publishing project outcomes in scientific journals to ensure wide academic dissemination.

These efforts underscore SUPREME’s commitment to fostering innovation, contributing to knowledge exchange, and ensuring that its research findings create a meaningful impact across multiple sectors. The dissemination activities described in this section align with the categories outlined in the “Dissemination Activities” section of the project’s continuous reporting in the EC Participant Portal, as illustrated in Figure 2.

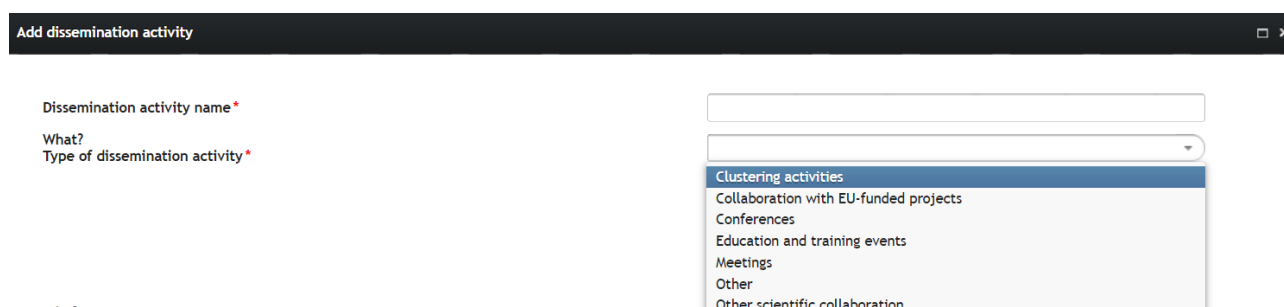


Figure 2. Types of dissemination activities to be reported in the EC Participant Portal

5.1 CLUSTERING ACTIVITIES

As part of its dissemination efforts, SUPREME actively collaborates with the [EU NanoSafety Cluster](#) to leverage synergies, exchange knowledge, and enhance the impact of its research. This collaboration facilitates the integration of Safe and Sustainable-by-Design (SSbD) principles into antimicrobial nanocoatings, aligning with broader European sustainability and safety goals.

One of the key ongoing clustering activities includes SUPREME’s contribution to the **NanoTox Summer School 2025**, where the project will showcase advancements in SSbD antimicrobial nanocoatings. This event will provide an opportunity to engage with researchers, industry professionals, and policymakers to discuss best practices, regulatory challenges, and novel approaches in the field of sustainable nanomaterials.

Additionally, SUPREME maintains an active role in the SSbD Working Group, fostering dialogue on the safe use of nanomaterials, promoting its innovations, and aligning its research with EU-wide efforts on risk assessment, regulation, and industrial adoption.

Beyond these initiatives, SUPREME is developing targeted clustering activities to disseminate results across different industrial sectors, ensuring engagement with key stakeholders. The project will focus on the following application sectors (Textiles, Metals and alloys, Ceramics, tiles, marble, stone slabs, cement, Paper and cardboard, Plastics). To strengthen engagement within these sectors, SUPREME is actively reaching out to relevant industry stakeholders, sector-specific industrial associations, and research networks (see D8.1 - Innovation Eco-System and Stakeholders' Map).

In addition to the ongoing collaborations, SUPREME has identified two key clustering activities that will be developed further. EU NanoSafety Cluster Engagement: SUPREME has been included in the EU NanoSafety Cluster webpage to ensure visibility within the broader nanomaterials research community. The project is actively contributing to the coordination of events and joint publications, strengthening knowledge exchange between similar EU-funded projects.

Through these initiatives, SUPREME aims to maximize knowledge transfer, facilitate cross-sector collaboration, and establish itself as a key contributor in the European nanomaterials research landscape .

5.2 COLLABORATION WITH EU-FUNDED PROJECTS

As part of its broader dissemination strategy, SUPREME actively collaborates with sister projects funded under the Horizon Europe programme, particularly those within the NanoSafety Cluster and the HORIZON-CL4-2021-RESILIENCE-01-20 topic on antimicrobial, antiviral, and antifungal nanocoatings.

In particular, SUPREME is contributing to a special issue in Discover Nano (edited by Zhenyu Zhang, University of Birmingham), which is bringing together the EU-funded projects to showcase advancements in Safe and Sustainable by Design (SSbD) nanocoatings. SUPREME also maintains active engagement with the NanoSafety Cluster, where it is listed as a member and contributes to working groups and event coordination.

SUPREME is actively engaging with 15 EU-funded sister projects spanning Horizon Europe, Horizon 2020, BBI-JU (Bio-Based Industries Joint Undertaking), and CBE-JU (Circular Bio-based Europe Joint Undertaking). These projects, listed in Table 1, launched between 2017 and 2024, address a diverse range of topics relevant to SUPREME's mission. Several projects focus on Safe-by-Design strategies for nanomaterials and coatings, while others develop bio-based and biodegradable coatings for packaging, textiles, and construction. Some projects work on PFAS-free and lignin-based coatings for sustainability, and others focus on antimicrobial nanocoatings targeting SARS-CoV-2 and other pathogens, while many projects contribute to circular economy solutions for bio-based coatings and adhesives.

Table 1. Projects funded under the same topic as SUPREME and other topics – 15 projects

TITLE	ACRONYM	ID
Smart Response sELf-desInfected biobAsed NanoCoatEd surfaces for healthier environments.	RELIANCE	101058570
Surface Transfer of Pathogens	STOP	101057961
SUStainable Antimicrobial and Antiviral Nanocoating	SUSAAN	101057988
DEVELOPMENT OF ANTIMICROBIAL, ANTIVIRAL, AND ANTIFUNGAL NANOCOATINGS FOR EVERYDAY SURFACES	MIRIA	101058751
Next Generation BiOactiVe NANocoatings	NOVA	101058554
Sustainable Development of Safe and Biobased Antimicrobial, Antifungal and Antiviral Nanocoating Platform	Triple-A-COAT	101057992
ANTIVIRAL, ANTIBACTERIAL & ANTIFUNGAL NANOCOATING PLATFORM	NANOBLOC	101057597
UV-Curable Polyurethane Coatings	BIORING	101112379
ECO sustainable multiFUNctional biobased COATings with enhanced performance and end-of-life options	ECOFUNCO	837863
Sustainable Coatings Based on Lignin Resins and Bio-Additives	LIGNICOAT	101023342
High Performance Bio-based Functional Coatings for Wood and Decorative Applications	PERFECOAT	101022370
Enhanced Safe and Sustainable Coatings for Supporting the Planet	PROPLANET	101091842
Safe and Sustainable by Design Integrated Approaches for Advanced Materials	SUNRISE (TEMAS)	101137324
Safe and Sustainable by Design Strategies for Advanced Nanomaterials	SUNSHINE	952924
Safe and Sustainable by Design Water and Oil Repellent Biobased Coatings	TORNADO	101091944

This broad network of EU projects reflects a coordinated European effort to develop safe, high-performance, and environmentally sustainable nanocoatings. SUPREME’s participation in these initiatives enhances its ability to share research findings, collaborate on policy recommendations, and drive the market adoption of innovative coatings technologies.

To further strengthen scientific collaboration, SUPREME is supporting a special issue in Discover Nano, focusing on Safe and Sustainable-by-Design antimicrobial nanocoatings. This special issue is edited by Zhenyu Zhang from the University of Birmingham and serves as a dedicated platform for EU-funded projects to disseminate their findings. SUPREME has invited contributions from 13 related projects. The special issue highlights innovations in Safe and Sustainable-by-Design nanocoatings, addressing key aspects such as safety, sustainability, and efficacy in antimicrobial applications. By contributing to this publication, SUPREME strengthens knowledge exchange among EU projects, ensuring that its research is accessible to the broader scientific community, industry, and policymakers. More information about the special issue can be found at the following link: <https://link.springer.com/collections/bcbdijgecc>.

5.3 CONFERENCES AND FAIRS

SUPREME representatives have participated in several key conferences and fairs. Presentations showcased technological advancements in antimicrobial and photocatalytic coatings, emphasizing the project's innovative approach and market potential. Engagement at these events fostered new partnerships and increased visibility for SUPREME among academic and industrial stakeholders. The list of conference where SUPREME partners communicated the project or results of the project is present in Table 2, with the location and date of the event.

SUPREME partners have actively presented the project at a variety of international conferences and fairs to disseminate results and engage with key stakeholders. These events have spanned scientific conferences on nanotechnology and materials science as well as industry-focused fairs on biotechnology and sustainability. Participation has been geographically diverse, covering Europe and beyond, with events held in Italy, Greece, Belgium, Slovenia, Japan, and Cyprus.

Presentations at these conferences have focused on technological advancements in antimicrobial and photocatalytic coatings, showcasing SUPREME's innovations in SSbD nanocoatings. Participation in these events has played a crucial role in strengthening collaborations with EU-funded projects, increasing the project's visibility, and fostering knowledge exchange with academia, industry, and policymakers. Moving forward, SUPREME aims to continue leveraging these platforms to communicate results, share best practices, and establish further synergies within the research and industrial communities.

Table 2 List of conferences and fairs where SUPREME partners have presented project results, including event names, locations, dates, and participating partners

N	Conference	Presentation	Partner	Location	Date
1	International Itma Fair 2023		NTT	Milan, Italy	08 - 14.06.2023
2	12th Nanosafety Training School 2023		WU	Venice, Italy	15 - 19.05.2023
3	Eurotox Congress 2023		RIVM	Ljubljana, Slovenia	10 – 13.09.2023
4	IFIB – International Forum On Industrial Biotechnology And Bioeconomy		NTT	Florence, Italy	28 – 29.09.2023
5	Researcher's Night 2023		PCN	Crete, Greece	29.09.2023
6	Ecomondo		NTT	Rimini, Italy	07 - 10.11.2023
7	Innodays - Innovation Days Of The Region Of Crete 2023		PCN	Crete, Greece	24-26.11.2023
8	Mrm2023/Iumrs-Ica2023 Advanced Materials Research Grand Meeting		PCN	Kyoto, Japan	11 – 16.12.2023
9	European Symposium On Surface Science (EMASST)		PCN	Athens, Greece	17-19.04.2024
10	Materialsweek 2024		RIVM	Cyprus	17-21.06.2024
11	Elements Of Future – XXVIII National Congress Of Società Chimica Italiana		NTT	Milan, Italy	26-30.08.2024
12	Foodsim 2024 - 13th International Conference On Simulation And Modelling In The Food And Bio-Industry	Modeling the antibacterial effect of copper oxide nanoparticles (published in the Proceedings)	KUL (B. E Aygün, T. G. C. Drago, S. Akkermans, D. Kozak, and J.F. M. Van Impe)	Ghent, Belgium	7-11.04.2024
		Systematic assessment of antifungal properties of metal nanoparticles	NKUA (F. Gerodimou, V. P. Valdramidis)	Ghent, Belgium	7-11.04.2024
13	European Symposium On Surface Science (EMASST)		PCN	Athens, Greece	17-19.04.2024

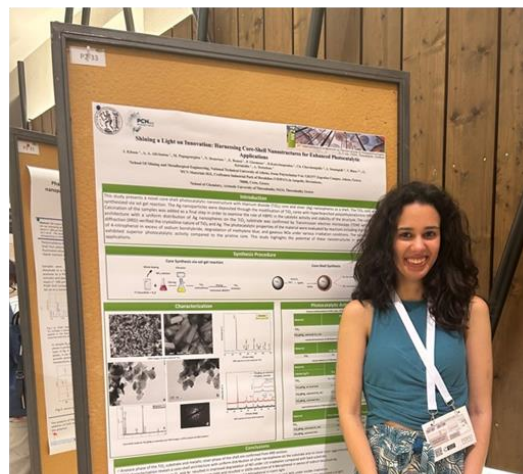
14	International Conference On Nanotechnology For Renewable Materials	Sustainable nanoparticles enabled antimicrobial surface coatings (Poster)	Daniel Hewson UOB, Fiberlean (D. Hewson)	Atlanta, USA	10-14.06.2024
15	Materialsweek 2024		RIVM	Cyprus	17-21.06.2024
16	21st International Conference On Nanosciences & Nanotechnologies (NANOTECHNOLOGY 2024)	Poster presentation: Shining a Light on Innovation: Harnessing Core-Shell Nanostructures for Enhanced Photocatalytic Applications (Poster)	NTUA & PCN (I. Kitsou, A. A. Alivisatou, M. Papageorgiou, N. Demetzos, E. Roussi, P. Gkomoza, D. Katerinopoulou, Ch. Charalampidis, A. Stoumpidi, V. Binas, G. Kiriakidis, A. Tsetsekou)	Thessaloniki, Greece	29.06-06.07.2024
17	Elements Of Future – XXVIII National Congress Of Società Chimica Italiana	Poster presentation: SUPREME – Sustainable nanoparticles enabled antimicrobial surface coatings	NTT (E. Merli, D. Spinelli, I. Canesi, N. Cei)	Milan, Italy	26-30.08.2024
18	10th International Conference On QUALITY AND SAFETY IN FOOD PRODUCTION CHAIN	SUPREME - SUstainable nanoPaRticles Enabled antiMicrobial surfacE coatings (Poster)	KUL	Wroclaw, Poland	12-13.09.2024
19	Nanotox 2024		RIVM	Venice, Italy	23-25.09.2024
20	ISFA 2024 - International Symposium On Food And Agro-Biodiversity	Introduction to the SUPREME project	KUL (Invited speaker prof. Jan Van Impe)	Semarang, Indonesia	2-4.10.2024
21	Athens Conference On Advances In Chemistry		NKUA	Athens, Greece	06 – 08.11.2024

The SUPREME project has been actively disseminated at key international conferences, engaging with experts in nanotechnology, chemistry, and food safety. Figure 3 showcases examples of these dissemination activities, where project partners presented SUPREME's advancements in antimicrobial nanocoatings. These events provided opportunities to share research findings, foster collaborations, and enhance the project's visibility among scientific, industrial, and policy stakeholders.

a)



b)



c)



d)

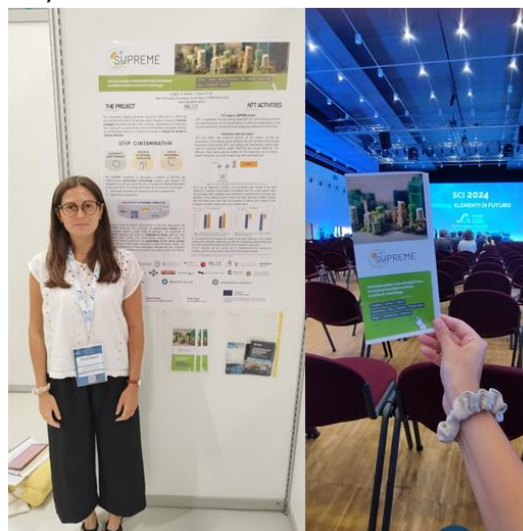


Figure 3 SUPREME project dissemination at key international conferences: a) Presentation by Jan Van Impe at the 10th International Conference on the Quality and Safety in Food Production Chain, Wroclaw, Poland. b) Poster presentation by NTUA's team at NANOTECHNOLOGY 2024, Thessaloniki, Greece. c) Jan Van Impe presenting SUPREME at the ISFA 2024 International Symposium on Food and Agro-Biodiversity, Semarang, Indonesia. d) Poster presentation by Elena Merli (NTT) at SCI 2024 - ELEMENTI DI FUTURO, the XXVIII Congresso Nazionale della Società Chimica Italiana, Milan, Italy.

5.4 EDUCATION AND TRAINING EVENTS

The SUPREME project is committed to education and training activities that enhance knowledge dissemination and support the development of highly qualified researchers in the field of nanocoatings. As part of these efforts, SUPREME will actively participate in the NanoTox Summer School, scheduled to take place in Venice in September 2025. This event is organized in collaboration with the Network for Safety and Sustainability of Chemicals and Materials (NSC) (<https://nsc-community.eu/>), providing a unique platform for knowledge exchange on SSbD approaches for nanomaterials.

To support capacity building in this field, SUPREME will contribute to ensuring free participation for students, facilitating broader access to high-quality training. The school will offer a multidisciplinary program, bringing together leading experts, researchers, and industry professionals to discuss cutting-edge advancements in nano safety, risk assessment, and sustainable nanocoatings. Beyond this initiative, SUPREME will continue engaging in doctoral colloquiums and specialized training schools, including the Nano safety Training School, to further strengthen education and skills development for early-career researchers in the field. These efforts reflect the project's dedication to fostering innovation, knowledge dissemination, and the next generation of experts in nanocoatings and sustainability.

5.5 MEETINGS

The SUPREME project has organized a series of consortium meetings to ensure effective coordination, progress monitoring, and collaboration among partners. These meetings serve as key milestones, allowing partners to align project activities, discuss advancements across work packages, and address strategic objectives. They also provide a platform for knowledge exchange and decision-making, ensuring the project remains on track to achieve its goals. Here the details about the 4 project meetings that occurred until the end of M24.

1. **Kick-Off Meeting (KOM):** Held in January 2023 in Ghent, Belgium, the Kick-Off Meeting officially launched the SUPREME project. It gathered all partners to establish a shared understanding of project objectives, define the structure and interconnections of work packages, and outline the initial implementation steps. The meeting also laid the foundation for effective collaboration by clarifying roles, responsibilities, communication channels, and coordination mechanisms among consortium members.
2. **M9 Consortium meeting:** The first consortium meeting of the SUPREME project took place on September 26-27, 2023, at the Foundation for Research and Technology – Hellas (FORTH) in Crete, Greece. Hosted by PCN Materials, this meeting served as a critical checkpoint to assess progress made in the first eight months, review scientific and technological advancements, and align on the next steps for the project's research and implementation phases.
3. **M16 Consortium Meeting:** The second consortium meeting took place on April 16-17, 2024, at PRISMA (Prato Industrial Smart Accelerator) in Prato, Italy. This meeting, hosted by NTT, served as a strategic milestone, marking the completion of the project's first year and

providing an opportunity for partners to review progress, coordinate upcoming research activities, and align on dissemination strategies.

4. **M23 Consortium Meeting:** The M23 consortium meeting took place on November 26-27, 2024, at Grande Hotel do Porto, Portugal. Hosted by PNO Portugal, this meeting served as a crucial opportunity to review the project's progress at month 23, align on upcoming research tasks, and refine dissemination and exploitation strategies.



Figure 4 SUPREME consortium photos in the different meetings held throughout the project. a) Kick-Off Meeting (KOM), January 2023, Ghent, Belgium; b) M9 Consortium Meeting, September 2023, Crete, Greece; c) M16 Consortium Meeting, April 2024, Prato, Italy; d) M23 Consortium Meeting, November 2024, Porto, Portugal.

5.6 PUBLICATIONS

SUPREME has successfully published its first peer-reviewed article in *Nanomaterials* (2024) (14(13), 1102; <https://doi.org/10.3390/nano14131102>), titled "Effect of Nanoceria Suspension Addition on the Physicochemical and Mechanical Properties of Hybrid Organic–Inorganic Hydroxyapatite Composite Scaffolds". The publication was led by researchers from the National Technical University of Athens (NTUA), a SUPREME project partner, in collaboration with other institutions. Their work on hydroxyapatite-ceria (HAP-CeO₂) composite scaffolds contributes to SUPREME's goal of developing advanced, antimicrobial, and mechanically enhanced nanocoatings for biomedical applications.

Effect of Nanoceria Suspension Addition on the Physicochemical and Mechanical Properties of Hybrid Organic–Inorganic Hydroxyapatite Composite Scaffolds

by Paraskevi Gkomoza¹, Ioanna Kitsou¹, Savvas Koltsakidis², Dimitrios Tzetzis², Andreas Karydis-Messinis³, Nikolaos Evangelos Zafeiropoulos³, Foteini Gerodimou⁴, Eleni Kollia⁴, Vasilis Valdramidis⁴ and Athena Tsetsekou^{1,*}

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⁴ Laboratory of Food Chemistry, Department of Chemistry, National and Kapodistrian University of Athens, 15771 Zografos, Athens, Greece

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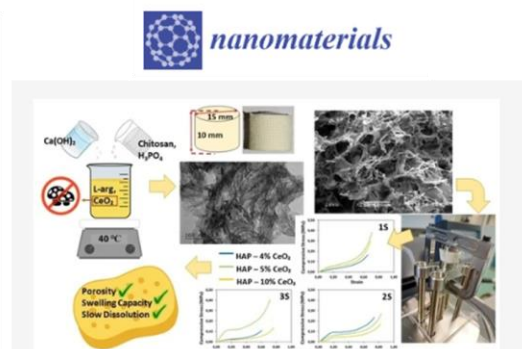


Figure 5 First peer-reviewed publication from the SUPREME project in *Nanomaterials* (2024), titled "Effect of Nanoceria Suspension Addition on the Physicochemical and Mechanical Properties of Hybrid Organic–Inorganic Hydroxyapatite Composite Scaffolds."

6 COMMUNICATION ACTIVITIES

The communication activities of the SUPREME project aim to effectively engage stakeholders and the wider public, creating visibility for the project's objectives, progress, and outcomes. These efforts are critical to ensuring awareness and fostering interest among key audiences, including industry players, researchers, policymakers, and the general public. Building on the Dissemination and Communication Plan (D8.2), the communication strategy focuses on using diverse channels and formats to maximize outreach and impact. This section provides an overview of the communication activities carried out during the first 24 months of the project. It covers events such as regular newsletters, press releases, and print materials. Furthermore, the project's online presence, including social media engagement and the "News & Events" section of the project website, is detailed. These actions reflect SUPREME's commitment to maintaining consistent and impactful communication, ensuring that the project's vision and results reach a broad and diverse audience. This section presents the SUPREME communication activities, as a roadmap of the main channels, where the project is promoted and disseminated: Events, Newsletters, Press releases, Print materials, Social media and Website.

6.1 EVENTS (CONFERENCES, MEETINGS AND WORKSHOPS)

The SUPREME project has actively participated in scientific conferences, industry fairs, and training schools, engaging with stakeholders and disseminating research findings. While no events have been organized by SUPREME to date, plans are underway for a support to a training school in Venice, which aims to provide specialized training in nanocoatings and antimicrobial materials.

The delay in organizing events can be attributed to several factors. Firstly, the early stages of the project focused on generating scientific results and validating technologies, ensuring a strong technical foundation before launching dedicated training activities. Additionally, the alignment of event planning with project milestones was necessary to maximize relevance and impact. Furthermore, coordinating an international doctoral school requires collaboration with academic and industry partners, which involves logistical challenges and securing commitments from key stakeholders.

6.2 NEWSLETTERS

Three newsletters have been published, including highlights from consortium meetings and interviews with partners. These newsletters have been shared via the website, LinkedIn, and email campaigns to reach a broad audience. Newsletter #4, planned for April 2025, will focus on SUPREME's scientific development toward the transfer of lab research to industrial applications and feature interviews with key partners.

Newsletter #1: June 2023

The first SUPREME Newsletter, published in June 2023, introduced the project's vision and objectives to a broad audience. It highlighted SUPREME's mission to develop advanced antimicrobial, antiviral, and antifungal nanocoatings for various surfaces, including textiles, metals, ceramics, paper, and plastics. The newsletter also featured the Kick-off Meeting in Ghent, Belgium, where the 18 consortium partners gathered to define the project's structure and implementation strategy. A key section of the newsletter focused on why coatings are essential in modern applications, emphasizing their role in enhancing surface properties and preventing pathogen spread. It underscored the need for sustainable and durable antimicrobial solutions, particularly in response to the increasing challenges of surface contamination in high-traffic areas. Additionally, the newsletter outlined SUPREME's technical approach, detailing plans for the development of bespoke TiO₂ nanoparticles and hybrid fiber-nanoparticles to enhance surface functionality. The project aims to scale up production to TRL6, ensuring that the materials developed are not only effective but also sustainable and safe by design. By launching this first edition, SUPREME established a communication channel to engage stakeholders, providing insights into scientific advancements, industry relevance, and future project milestones. Future newsletters will continue to report on technical progress, key events, and collaboration opportunities within the SUPREME network.

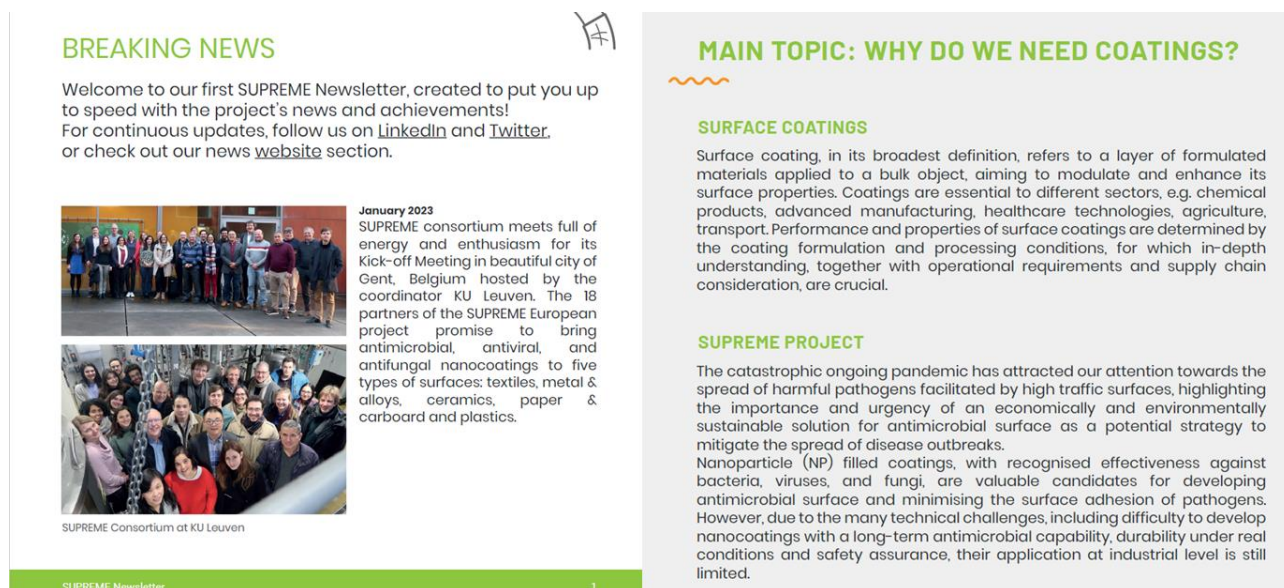


Figure 6 Highlights from the first SUPREME Newsletter (June 2023), introducing the project's mission to develop sustainable antimicrobial, antiviral, and antifungal nanocoatings for various surfaces.

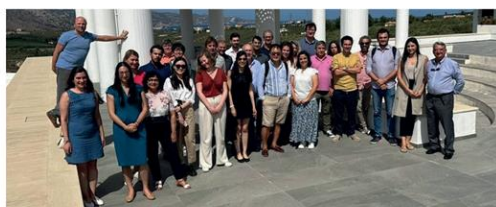
Newsletter #2: December 2023

The second edition of the SUPREME Newsletter, published in December 2023, highlighted key developments from the SUPREME General Meeting in Crete, Greece, hosted by PCN and FORTH. This meeting served as a platform to review project progress, strengthen collaborations, and validate stakeholder engagement strategies. One of the major highlights was the Stakeholders' Map Validation Workshop, where consortium members identified target groups for antimicrobial coatings across key sectors, including textiles, building materials, and plastics. This exercise was crucial in aligning SUPREME's technological developments with real-world applications. Additionally, the newsletter showcased a visit to PCN Materials, offering insights into sustainable nanoparticle production and their role in enhancing antimicrobial coatings. The edition also featured an interview with Dr. George Kiriakidis from PCN, discussing the importance of SUPREME's technologies for public health and their potential applications in high-contact surfaces, packaging, and protective coatings. By capturing scientific progress, industry engagement, and strategic planning, Newsletter 2 reinforced SUPREME's commitment to delivering next-generation antimicrobial coatings, ensuring both efficacy and sustainability. Future editions will continue to showcase technological advancements, market readiness, and collaborative efforts within the consortium.

BREAKING NEWS

Welcome to our second SUPREME Newsletter, created to put you up to speed with the project's news and achievements! For continuous updates, follow us on [LinkedIn](#) and [Twitter](#), or check out our news [website](#) section.

Many thought-provoking discussions and exciting progress at the SUPREME General Meeting, on the 26th and 27th of September, 2023 in Crete, Greece, hosted by George Kiriakidis (PCN) and Vassilios Binas (FORTH).



SUPREME Consortium in Crete, Greece

STAKEHOLDERS' MAP VALIDATION WORKSHOP TOOK PLACE AT THE CRETE CONSORTIUM MEETING.

Stakeholders' Map – Workshop Groups



This project has received funding from the European Union's Horizon Europe research and innovation programme under Grant Agreement No. 101058422.

Groups of the Stakeholder's Map Validation

Figure 7 Highlights from the second SUPREME Newsletter (December 2023), featuring key updates from the SUPREME General Meeting in Crete, Greece. The newsletter covers the Stakeholders' Map Validation Workshop, where project partners identified target sectors for antimicrobial coatings, including textiles, building materials, and plastics.

The analytics for SUPREME Newsletter # 2 show strong engagement metrics, indicating effective outreach and audience interest. With a reach of 64 recipients, the newsletter achieved an open rate of 67%, meaning that nearly two-thirds of recipients opened the email. The click rate of 50% highlights that half of those who opened the newsletter engaged further by clicking on links, suggesting that the content was relevant and engaging. The reactivity rate of 74% reinforces this, showing that a majority of engaged recipients took action. These figures, shown in Figure 8, demonstrate successful audience engagement, reflecting growing interest in SUPREME's updates, events, and scientific progress. Future newsletters can build on this momentum by expanding the recipient list, enhancing interactive elements, and further tailoring content to stakeholder interests.

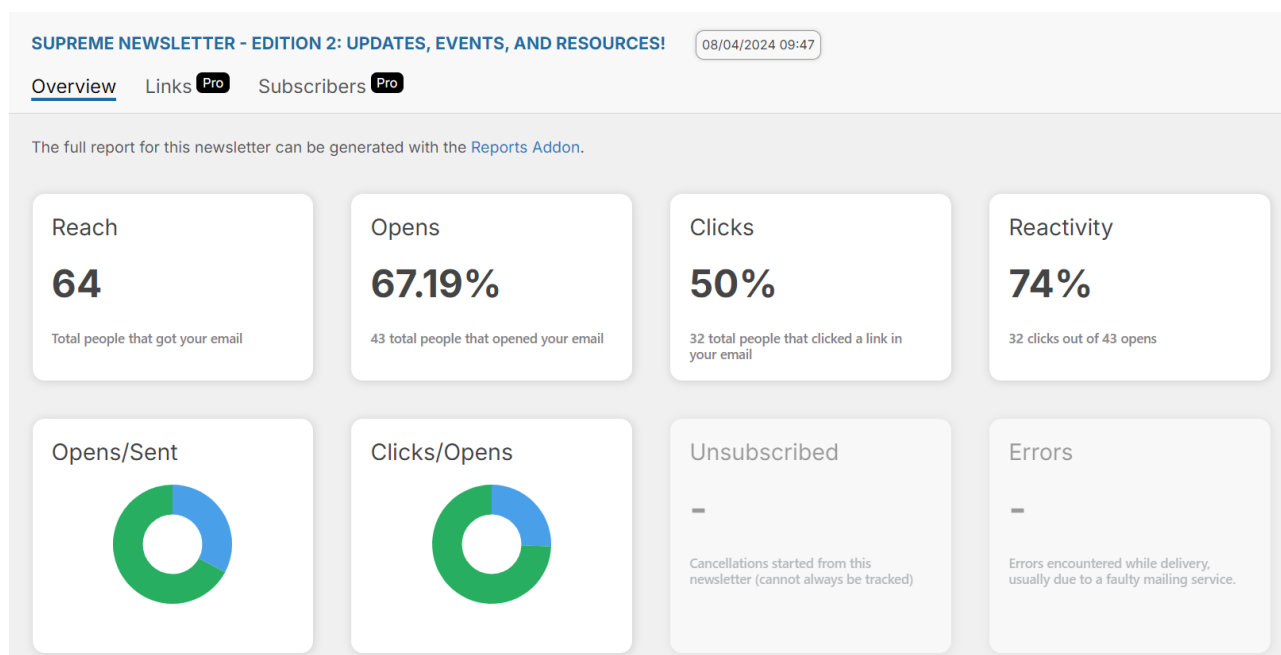


Figure 8 Performance analytics of the SUPREME Newsletter # 2, sent in April 2024

Newsletter #3: October 2024

The third edition of the SUPREME Newsletter, published in October 2024, provided an in-depth overview of the scientific and industrial progress within the project. This issue captured the outcomes of the SUPREME General Meeting in Prato, Italy, hosted by Next Technology Tecnotessile (NTT) and Trafi Creatività Tessile (TAFI). The meeting emphasized research breakthroughs, sustainable innovation, and strategic planning for future developments. One of the major highlights was the development of $\text{TiO}_2@Ag$ and $\text{TiO}_2@CuO$ nanostructures by NTUA, which demonstrated enhanced antimicrobial and photocatalytic properties. These nanostructures aim to expand optical responses, improve long-term durability, and ensure safe, scalable production for industrial applications. Additionally, TECNALIA made significant progress in Life Cycle Assessment (LCA), focusing on evaluating the sustainability of TiO_2 nanoparticle production. Their work aligns with eco-design guidelines, ensuring that manufacturing processes optimize efficiency while reducing environmental impact. A major breakthrough was reported by PCN Materials, which successfully developed a cellulose/ TiO_2 -based compound with remarkable antiviral properties. Tests demonstrated a 99.6% reduction in SARS-CoV-2 infection within 10 minutes, underscoring its potential for application in high-traffic areas and medical environments. This achievement represents a significant step toward bringing SUPREME's antimicrobial nanocoatings closer to real-world deployment.

The newsletter also featured interviews with project partners, providing insights into their roles, research contributions, and perspectives on the impact of SUPREME technologies on public health and sustainability. Additionally, this edition included updates on market analysis and economic value assessments, ensuring that the project's technological innovations align with regulatory standards and industry demands. By showcasing scientific advancements, sustainability strategies, and real-world applications, Newsletter 3 reinforced SUPREME's commitment to delivering next-generation antimicrobial nanocoatings while prioritizing scalability and environmental responsibility. Future

editions will continue to report on progress toward market adoption, industrial validation, and stakeholder engagement..

BREAKING NEWS

Welcome to our third SUPREME Newsletter! This edition will bring you the latest updates and achievements from the SUPREME project! For continuous updates, follow us on [LinkedIn](#) and [X/Twitter](#), or check out our news [website](#) section.

The SUPREME General Meeting in Prato, Italy, hosted by Next Technology Tecnotessile (NTT) and Trafi Creatività Tessile srl (TAFI) in April 2024, was a successful gathering where project partners reviewed progress, discussed future strategies, and aligned on upcoming milestones.



SUPREME Consortium in Prato, Italy

MAIN TOPIC: SUPREME RESEARCH ADVANCEMENT

In this 3rd edition, we're excited to showcase the latest breakthroughs in the SUPREME project, where the different partners have made significant developments on cutting-edge research in antibacterial nanotechnology. Stay tuned as we continue to push the boundaries of material science and shape the future of sustainable, high-performance coatings.

Next Technology Tecnotessile (NTT)

Next Technology Tecnotessile is leading the application of the coating formulations developed in the SUPREME project on textile substrates by using plasma technologies under vacuum and atmospheric conditions. These technologies allow to deposit coatings with tuneable thickness on different substrates with different morphology. In the preliminary phase, NTT and TRAFI have selected the cellulosic and synthetic fabrics type for the experimental activities to be coated with a titanium dioxide nanoparticles (TiO₂) dispersion. Then, after the process conditions optimization, all the samples have been characterized in terms of coating distribution and durability check. NTT has shown the positive effects of the plasma treatment on textiles samples to improve the fabric coating. At the same time, TRAFI has tested two different coating methods in combination with specific chemical agents to get a uniform distribution of TiO₂ nanoparticles for the same fabrics type. The results obtained from the first trials will be used for the next tests and validation at industrial level.

Figure 9 Highlights from the third SUPREME Newsletter (October 2024), featuring key updates from the SUPREME General Meeting in Prato, Italy, hosted by Next Technology Tecnotessile (NTT) and Trafi Creatività Tessile (TAFI).

The analytics for SUPREME Newsletter # 3, visible in Figure 10, indicate steady audience engagement, with a reach of 60 recipients and an open rate of 58.06%, demonstrating continued interest in the project's updates and research progress. The click rate of 35.48% suggests that more than one-third of readers engaged further by exploring links, while the reactivity rate of 61% confirms that a majority of those who opened the newsletter interacted with its content. Compared to previous editions, the engagement levels remain strong, though there is room to increase link engagement by further optimizing content, incorporating more interactive elements, and expanding the recipient list. Future editions could focus on targeted dissemination strategies to maximize outreach and stakeholder involvement.

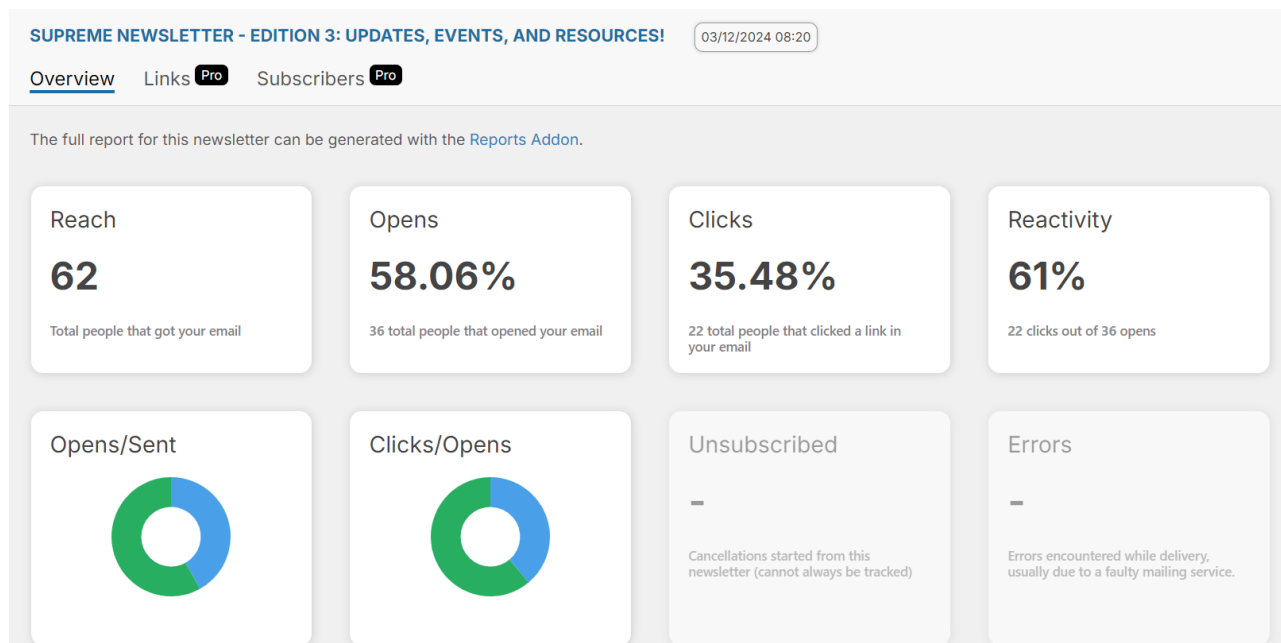


Figure 10 Performance analytics for SUPREME Newsletter # 3, sent in December 2024.

As identified at the proposal stage, the target is to reach at least 1,000 subscribers by M48. This indicator will be accompanied during the project execution with the assistance of the entire consortium that are actively contributing.

6.3 PRESS RELEASES

Press releases, whether issued by individual partners or jointly, will be periodically prepared and published to share project progress, updates, news, and participation in events. The consortium will determine the most effective approach for both national and international communication to disseminate project results. During the first 24 months, no major press releases were issued. However, future dissemination efforts will seek opportunities for media engagement and press releases, particularly as the project reaches key milestones, such as scientific breakthroughs, industrial validation phases, and stakeholder events. To enhance outreach, the consortium will explore the possibility of publishing an article in [The Conversation](#) or [Horizon Magazine](#), widely recognized outlets where academic partners can communicate research insights to a broader audience. Given that these type of articles are often republished by major news platforms, this initiative could serve as an effective alternative to a traditional press release. The consortium will engage with key project representatives, to assess interest in contributing an article that highlights SUPREME’s innovations and impact. These efforts will aim to enhance public visibility and reinforce SUPREME’s presence within scientific, industrial, and policy communities.

6.4 PRINT MATERIALS

The SUPREME project has developed three key print materials, as shown in Figure 11, a leaflet, poster, and roll-up, which have been widely used in various communication and dissemination activities. These materials serve as versatile tools to effectively convey the project’s objectives, methodologies, and expected impacts to a broad audience, including researchers, industry

representatives, policymakers, and the general public. The leaflet provides a concise summary of the project, its goals, and expected outcomes. The poster presents a more detailed scientific and technical overview, making it an ideal tool for dissemination at research conferences. The roll-up is designed for exhibitions and networking events, offering a high-impact visual display of the project's main concepts and achievements. These print materials are available on the 'Results' page of the SUPREME website (<https://www.supreme-project.eu/results/>) and can be accessed and used by consortium partners to support dissemination activities.



Figure 11 SUPREME Print Materials: a) Leaflet, b) Poster and c) Roll-up

6.5 SOCIAL MEDIA

The SUPREME project has maintained an active presence on LinkedIn and X/Twitter, using these platforms to share project updates, research progress, and event participation. These social media channels play a crucial role in engaging stakeholders, promoting project results, and enhancing visibility within the scientific, industrial, and policy communities.

LinkedIn has been the primary communication channel, given its effectiveness in reaching industry professionals, researchers, and policymakers. The SUPREME LinkedIn page currently has 362 followers, reflecting steady growth and interest in the project. Posts have included conference participation, key achievements, partner contributions, and research highlights, with a professional yet accessible tone.

Analyzing LinkedIn engagement metrics provides valuable insights into the effectiveness of the communication strategy. The SUPREME LinkedIn page has achieved 29,000 impressions, 660 reactions, and 224 reposts over 35 posts.

Figure 12 and Figure 13 illustrate the LinkedIn engagement metrics for the SUPREME project in 2024, covering impressions, members reached, clicks, reactions, comments, reposts, visitor metrics, and follower metrics. Figure 12a) shows impressions, which measure the total number of times SUPREME’s posts were displayed to LinkedIn users, reflecting the overall visibility of the project’s posts on the platform. Figure 12b) represents members reached, indicating the number of unique LinkedIn users who viewed SUPREME’s posts and providing insight into the size of the audience reached. Figure 12c) captures clicks, measuring how many times users interacted with SUPREME’s posts by clicking links or attachments, which indicates direct engagement with the content. Finally, Figure 12d) shows reactions, including likes, applause, and other user responses to posts, reflecting audience sentiment and levels of interaction.

All four metrics exhibit significant peaks in March-April and October-November. These align with key project dissemination activities, particularly the release of the second newsletter in April and the third newsletter in November. The peaks also coincide with important consortium meetings: the April meeting held in Prato, Italy, and the November meeting in Porto, Portugal. The spikes in April were slightly higher across impressions, members reached, clicks, and reactions, suggesting that the second newsletter and the associated activities in Prato had a broader and more engaging impact than the November efforts. Between these peaks, the metrics remain consistently lower, indicating reduced engagement during periods without major dissemination efforts.

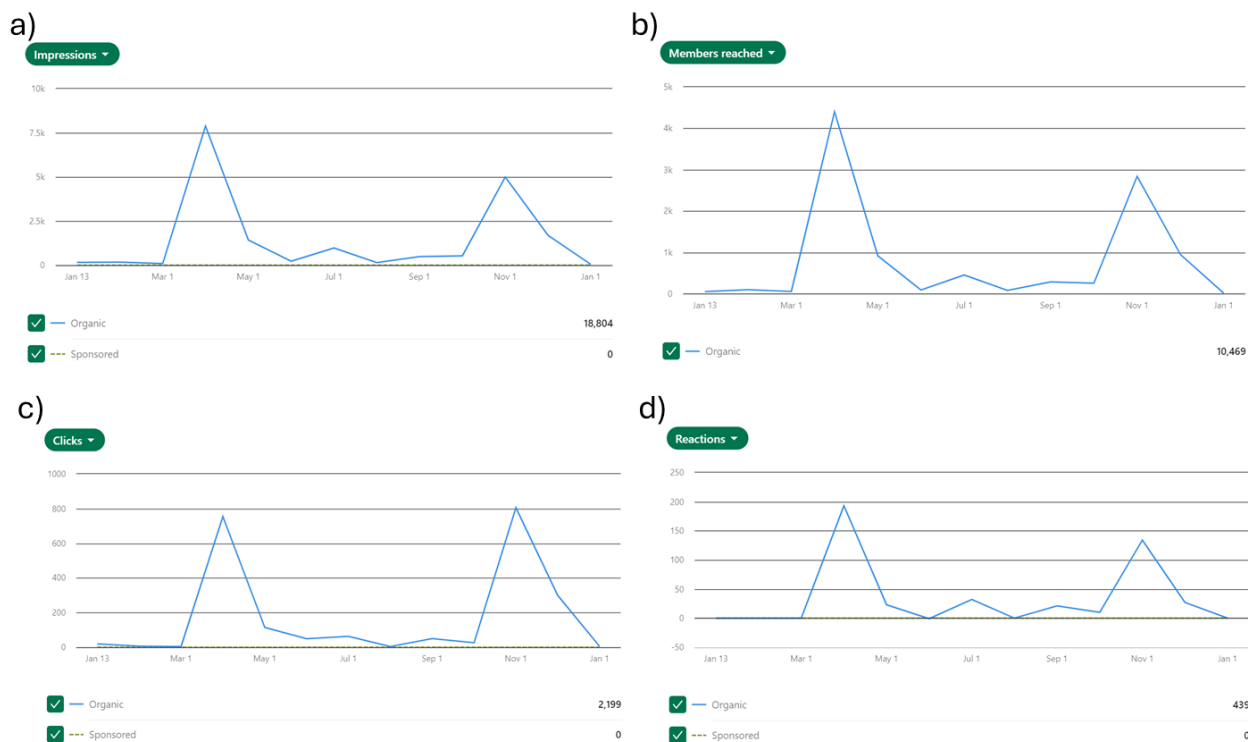


Figure 12 LinkedIn engagement metrics for the SUPREME project in 2024, including a) total impressions and b) members reached, c) total clicks and d) total reactions.

Figure 13a) shows comments, which represent the number of responses users left on SUPREME’s posts, reflecting audience interaction and engagement with the content. Figure 13b) illustrates

reposts, indicating how often users shared SUPREME’s posts, thus amplifying their visibility and extending the reach of the content to a broader audience. Figure 13c) captures visitor metrics, which measure page views on SUPREME’s LinkedIn profile, distinguishing between desktop and mobile access. Finally, Figure 13d) shows follower metrics, which track the growth of SUPREME’s LinkedIn followers over time, reflecting increasing interest in the project. As shown before, all four metrics show significant peaks in March-April and October-November, aligning with key project activities, such as the release of the second and third newsletters in April and November, respectively. The comments in Figure 13a) and reposts in Figure 13b) peaked in April and November, demonstrating that newsletters and consortium meetings not only attracted visibility but also encouraged active sharing and discussion among LinkedIn users. Visitor metrics in Figure 13c) reveal a particularly strong spike in April, with mobile views exceeding desktop views, while a smaller spike in November indicates continued interest, though less pronounced than in April. Follower metrics in Figure 13d) show steady but modest growth throughout the year, with slight increases in April and November, confirming that newsletters were effective in attracting new followers while retaining existing ones.

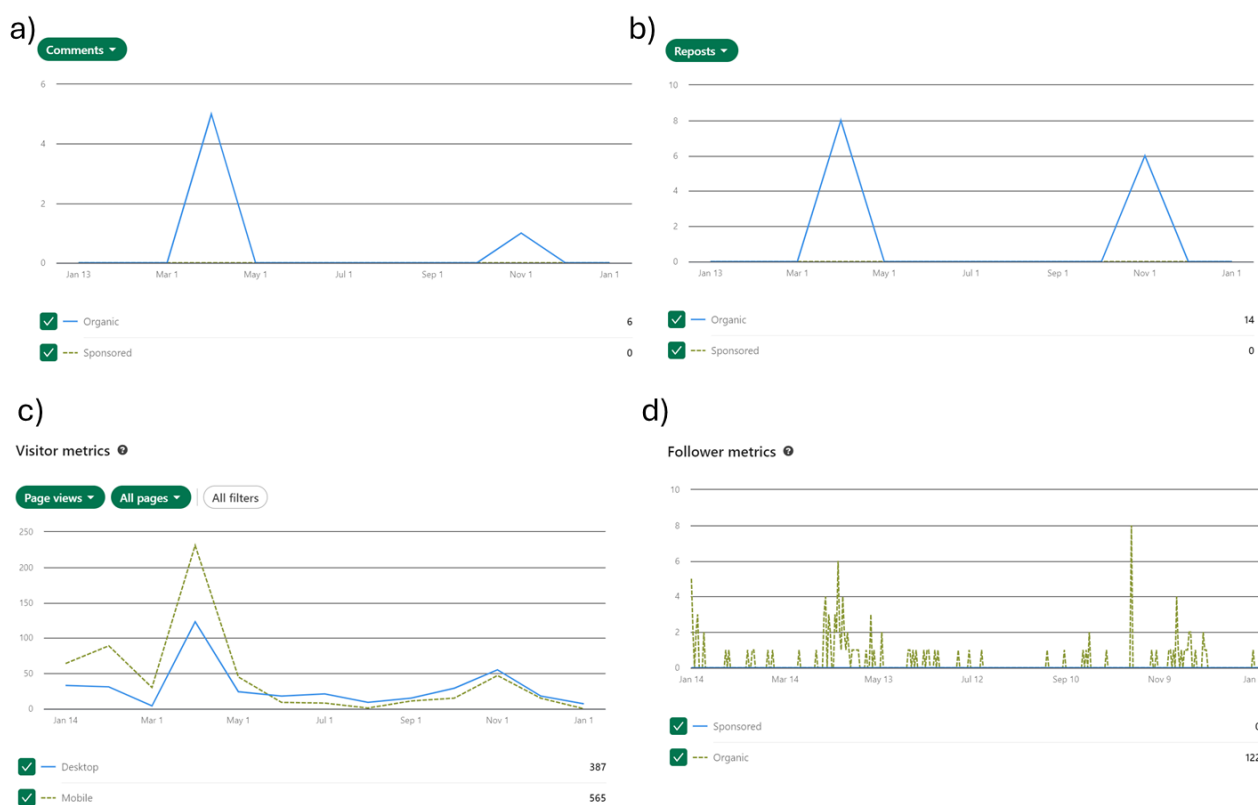


Figure 13 LinkedIn engagement metrics for the SUPREME project in 2024, including a) total comments, b) total reposts, c) visitor metrics (page views by desktop and mobile), and d) follower metrics.

The LinkedIn engagement data for the SUPREME project in 2024 underscores the critical role of newsletters and consortium meetings as key drivers of visibility, interaction, and audience growth. These activities successfully captured attention, encouraged meaningful engagement, and reinforced the project’s online presence. Among these, the stronger peaks in April suggest that the second newsletter and associated activities in Prato had a slightly greater impact compared to November. Outside these key periods, engagement metrics remained low, emphasizing the

importance of well-planned and targeted dissemination activities to maintain audience interest and interaction.

Initially, SUPREME utilized X/Twitter for communication, but engagement on this platform has been limited, with only 50 followers to date. This trend aligns with a broader decline in X/Twitter usage among EU-funded projects. Given these insights, SUPREME has deprioritized X/Twitter and shifted focus toward LinkedIn, which has demonstrated higher engagement and a stronger alignment with target audiences.

6.6 WEBSITE

The SUPREME project website (<https://www.supreme-project.eu/>) serves as the central hub for all dissemination and communication activities. It provides stakeholders with access to project updates, publications, deliverables, and event information. The website is structured into key sections to maximize accessibility and engagement:

- About: Introduction to the project's objectives and mission.
- Work Plan: Overview of the methodology and work packages guiding the research.
- Consortium: Presentation of the 19 project partners from 8 countries.
- Results: Repository for project deliverables, publications, and key findings.
- News & Events: Regular updates on milestones, participation in conferences, and consortium meetings.
- Newsletter: Archive of all SUPREME newsletters, ensuring visibility of key project updates.
- Contacts: Direct contact point for stakeholders and potential collaborators.
- Website Traffic and Engagement

As of M24, the website has recorded 1,500 unique visitors, with a goal of reaching 20,000 visitors by M48. The website has played a critical role in facilitating stakeholder engagement, particularly through the 'Results' page, which provides access to key dissemination materials including the leaflet, poster, and roll-up.

Over the next two years, the SUPREME project will leverage new research results, expanded dissemination efforts, and strategic engagement activities to significantly increase website traffic and improve the number of visitors by M48. Firstly, as new scientific advancements emerge, including breakthroughs in antimicrobial nanocoatings, sustainability assessments, and industrial validation, the website will serve as the primary repository for publications, technical reports, and key findings, attracting increased visits from researchers, policymakers, and industry professionals. Secondly, continuing the dissemination efforts through newsletters, press releases, and partner networks will direct more stakeholders to the website, particularly as the project gains visibility in conferences, EU innovation platforms, and high-impact media outlets.

7 PERFORMANCE METRICS AND KPIS

The performance metrics and Key Performance Indicators (KPIs) in D8.3 assess the effectiveness of SUPREME's dissemination and communication activities. These KPIs were initially defined in D8.2 and are now evaluated at M24 to measure progress.

The SUPREME project has made significant progress in key dissemination and communication areas.

- **Social Media:** The project has achieved 362 LinkedIn followers and 50 Twitter followers, with LinkedIn proving to be the most effective platform.
- **Newsletter Reach:** SUPREME has 60 newsletter subscribers, with a target of 1,000 subscribers by M48. Future newsletters will focus on expanding outreach and engagement.
- **Website Traffic:** The project website has recorded 1,500 unique users, with a target of 20,000 visitors by M48.
- **Event Participation:** SUPREME partners have participated in 21 events, including conferences, fairs, and training workshops.
- **Publications:** The first peer-reviewed article has been published, with a target of 30 publications by M48.

Some KPIs, such as press releases and organized events, have not yet met their targets. This is largely due to the project's initial focus on research development and technical validation. Moving forward, the consortium plans to intensify engagement efforts, including more scientific publications, targeted press releases, and an expanded social media presence.

7.1 D&C TARGETS

SUPREME has made progress toward its dissemination and communication KPIs. By M24, the project has achieved a proper accomplishment of the event-related targets, while social media engagement has grown significantly, reaching 362 followers on LinkedIn and 50 on Twitter. Moving forward, efforts will be focused on expanding publication output and reaching the remaining KPIs by M48. However, based on the implementation progress and the lessons learned during the first half of the project, the consortium will assess the feasibility of some of the original targets, particularly in areas such as clustering activities, collaboration with EU-funded projects, organization of events, and the number of website users. Where necessary, revised KPIs will be proposed and justified in the final report (D8.4) to ensure that the monitoring framework remains realistic and aligned with the project's actual dissemination potential.

Table 3 and Table 4 show the Key Performance Indicators (KPIs) targeted by the SUPREME project.

Table 3. KPIs for SUPREME Dissemination Activities

DISSEMINATION ACTIVITIES			
Type of action to be reported	Number of activities M6	Number of activities M24	Target M48
CLUSTERING ACTIVITIES	1	1	5
COLLABORATION WITH EU FUNDED PROJECTS	0	1	7
CONFERENCES AND FAIRS	2	21	7
EDUCATION AND TRAINING EVENTS	1	1	4
MEETINGS	0	4	2
PUBLICATIONS	0	1	30

Table 4. KPIs for SUPREME Communication Activities

COMMUNICATION ACTIVITIES				
Type of action to be reported	KPI	M6	M24	Target M48
EVENT	Number of events	2	21	16
NEWSLETTER	Number of subscribers	0	60	1000
PRESS RELEASE	Number of press releases	1	1	8
PRINT MATERIALS	Number of distributed materials	100	100	1000
SOCIAL MEDIA	Number of followers	132 LinkedIn 13 Twitter	362 LinkedIn 50 X/Twitter	1000
SUPREME WEBSITE	Number of users	139	1 500	20 000
PARTNERS' WEBSITE	Communication in partner website	6	9	18

7.2 D&C TABLES MONTH 24

This section presents the tables with the information inserted in the continuous reporting of the EC Participant Portal Grant Management Services, as displayed in Figure 14 and Figure 15 for Dissemination and Communication activities, respectively.

Dissemination Activity Name	What? Type of dissemination activity	Who? Target audience Reached	Why? Description of the objective(s) with reference to a specific project output (max 200 characters)	Status of the dissemination activity
Collaboration with EU NanoSafety Cluster	Clustering activities	Research communities, Industry, business partners, Innovators, International organisation (UN body, OECD, etc.)	Inform EU NanoSafety Cluster about SUPREME	Ongoing
12th NanoSafety Training School 2023	Education and training events	Research communities	WU Participation in 12th NanoSafety Training	Delivered
International ITMA Fair 2023 (Milan)	Conferences	Research communities, EU Institutions, Industry, business partners, Innovators	NTT participation in Textile & Garment Techn	Delivered
Energy Efficient Buildings Conference	Conferences	Research communities, Industry, business partners, Local authorities, innovators, Regional authorities	PCN participated as sponsor and speaker in "E	Delivered

Dissemination Activity Name	What? Type of dissemination activity	Who? Target audience Reached	Why? Description of the objective(s) with reference to a specific project output (max 200 characters)	Status of the dissemination activity	Actions
Collaboration with EU NanoSafety Cluster	Clustering activities	Research communities, Industry, business partners, Innovators, International organisation (UN body, OECD, etc.)	Inform EU NanoSafety Cluster about SUPREME	Ongoing	✗
MRM2023 Advanced Materials Conference	Conferences	Research communities, Industry, business partners, Innovators	PCN participation in MRM2023 Advanced Mater	Delivered	✗
Meetings - Promotion of SUPREME results outp	Meetings	Regional authorities	Meetings by PCN with regional authorities at U	Delivered	✗
12th NanoSafety Training School 2023	Education and training events	Research communities	WU Participation in 12th NanoSafety Training S	Delivered	✗
EMASST	Conferences	EU Institutions	Invited talk, focused on SUPREME targets, 17-	Delivered	✗
International ITMA Fair 2023 (Milan)	Conferences	Research communities, EU Institutions, Industry, business partners, Innovators	NTT participation in Textile & Garment Techno	Delivered	✗

Figure 14. EC Participant Portal Grant Management Services \ Project Continuous Report \ Dissemination Activities

Communications Activities

Communication Activity Name	Description	Who? Target audience	How? Communication channel	Outcome	Status
SUPREME X / Twitter	SUPREME first newsletter https://	Research communitie	Social media	5 reposts, 5 like, 279 views	Delivered
SUPREME LinkedIn	SUPREME visit to Next Technology 1	Industry, business par	Social media	32 reactions, 2 comments, 6 i	Delivered
SUPREME X / Twitter	Tutorial seminar on mechanisms of	Research communitie	Social media	4 re-tweets, 7 likes, 248 imp	Delivered
SUPREME LinkedIn	SUPREME General Meeting in Prato.	Research communitie	Social media	66 reactions, 1 comment, 14 r	Delivered
SUPREME LinkedIn	Interview Corner: George Kiriakidis	Industry, business par	Social media	17 reactions, 1 comment, 664	Delivered
SUPREME X / Twitter	@KULeuvenBioTeC, @KULeuvenGen	Research communitie	Social media	6 re-tweet, 7 likes, 312 Impr	Delivered
SUPREME X / Twitter	SUPREME second Newsletter https:	Research communitie	Social media	14 view	Delivered
PNO Website	SUPREME page in Partner website I	Research communitie	Website	SUPREME page in Partner wel	Delivered
SUPREME X / Twitter	Working visit of Research Coordina	Research communitie	Social media	5 reposts, 10 like, 36 view	Delivered
SUPREME X / Twitter	Consortium General Meeting in Her	Research communitie	Social media	5 reposts, 9 like, 1k views	Delivered
SUPREME X / Twitter	SUPREME Stakeholder's Map Works	Industry, business par	Social media	5 reposts, 6 like, 446 view	Delivered
SUPREME X / Twitter	30th Anniversary of @KULeuvenBio	Research communitie	Social media	5 re-tweet, 13 likes, 278 imp	Delivered
PCN LinkedIn	Researcher's night 2023 https://ww	Civil society	Social media	34 reactions, 2 reposts, 787 in	Delivered
PNO Innovation Place X / Twitter	Workshop for stakeholders mapping	Industry, business par	Social media	1 repost, 1 like, 95 view	Delivered
SUPREME X / Twitter	SUPREME visit to Next Technology 1	Industry, business par	Social media	30 views, 1 like	Delivered
SUPREME X / Twitter	30th Anniversary of our @KULeuven	Research communitie	Social media	2 comments, 10 re-tweets, 3	Delivered
KUL Website	Sustainable nanoPaRticles Enabled	Research communitie	Website	SUPREME project page in the	Delivered
SUPREME X / Twitter	SUPREME Consortium in its General	Research communitie	Social media	25 views	Delivered
SUPREME website	Supreme #2 newsletter https://ww	Civil society	Newsletter	100	Delivered
PCN LinkedIn	Innodays 2023 https://www.linked	Innovators	Social media	30 reactions, 3 reposts, 287 ir	Delivered

Communications Activities

Communication Activity Name	Description	Who? Target audience	How? Communication channel	Outcome	Status
SUPREME LinkedIn	https://www.linkedin.com/feed/u	Research communitie	Social media	4 likes, 137 impressions	Delivered
SUPREME LinkedIn	https://www.linkedin.com/feed/u	Research communitie	Social media	44 likes, 2025 impressions, 2	Delivered
SUPREME LinkedIn	SUPREME #2 Newsletter https://ws	Research communitie	Social media	12 likes, 505 impressions, 1 s	Delivered
SUPREME LinkedIn	SUPREME visit to PCN Materials htt	Industry, business par	Social media	34 reactions, 2 comments, 2 i	Delivered
PNO Innovation Place X / Twitter	SUPREME first Newsletter https://	Industry, business par	Social media	71 views	Delivered
SUPREME LinkedIn	SUPREME working groups for sessio	Research communitie	Social media	50 reactions, 1 comment, 12 r	Delivered
PNO Innovation Place Newsletter	SUPREME Newsletter #1: Why do w	Industry, business par	Newsletter	SUPREME Newsletter dissemi	Delivered
SUPREME LinkedIn	Collaboration in Action! SUPREME a	Research communitie	Social media	41 reactions, 1 repost	Delivered
SUPREME X / Twitter	Gustavo Lunardon summarising his	Research communitie	Social media	1 comment, 15 likes, 6 re-tw	Delivered
SUPREME LinkedIn	Interview Corner - Büşra Erol Aygür	Research communitie	Social media	48 reactions, 1 repost, 1816 li	Delivered
SUPREME LinkedIn	Consortium General Meeting in Her	Research communitie	Social media	66 reactions, 1 comment, 10 i	Delivered
SUPREME X / Twitter	Looking for two PhD candidates! ht	Research communitie	Social media	1 comment, 9 re-tweet, 11 li	Delivered
SUPREME LinkedIn	SUPREME second newsletter https:	Research communitie	Social media	22 reactions, 1 comment, 7 r	Delivered
SUPREME LinkedIn	SUPREME first newsletter https://	Research communitie	Social media	27 reactions, 11 reposts, 373 i	Delivered
SUPREME LinkedIn	"Blocked Transmission", by Tom Ouj	Innovators	Social media	7 reactions, 2 reposts	Delivered
PNO Innovation Place Newsletter	PNO organizes stakeholders' analys	Industry, business par	Newsletter	SUPREME News disseminated	Delivered
SUPREME X / Twitter	Looking for a PhD https://x.com/N	Research communitie	Social media	36 re-tweet, 29 likes, 3000 ir	Delivered
SUPREME LinkedIn	PCN exhibits at Innodays 23 https:.	Innovators	Social media	30 reactions, 3 reposts	Delivered
PNO Innovation Place LinkedIn	SUPREME coating newsletter #1 ou	Industry, business par	Social media	6 reactions	Delivered
SUPREME X / Twitter	Presentation at the @KULeuvenBio	Research communitie	Social media	1 comment, 5 re-tweets, 488	Delivered

SUPREME D8.3 - Preliminary report on dissemination and communication activities



Communication Activity Name	Description	Who? Target audience	How? Communication channel	Outcome	Status
EU Nanosafety Cluster Newsletter	NSC Update #4- September 2023 NI	Industry, business par	Newsletter	News about SUPREME distribu	Delivered
PNO Portugal LinkedIn	SUPREME website launch https://w	Industry, business par	Social media	4 reactions, 113 Impressions	Delivered
SUPREME LinkedIn	SUPREME website launch https://w	Research communitie	Social media	16 reactions, 1 comments, 6	Delivered
PNO Innovation Place X/Twitter	SUPREME website launch https://t	Industry, business par	Social media	26 views, 1 reaction	Delivered
ISOMAT Press Release	ISOMAT PARTICIPATES IN THE EUROF	Industry, business par	Press release	1 Press release	Delivered
ISOMAT Website	ISOMAT participates in the Europea	Industry, business par	Website	1 Communication in partner	Delivered
ISOMAT LinkedIn	ISOMAT's participation in SUPREME	Industry, business par	Social media	49 reactions, 3 reposts	Delivered
RIVM Website	Sustainable nanoPaArticles Enabled	Research communitie	Website	1 Communication in partner	Delivered
UoB Website	Formulation engineering is crucial	Research communitie	Website	1 Communication in partner	Delivered
WU Website	Strategy to mitigate disease outbre	Research communitie	Website	1 Communication in partner	Delivered
NTUA Website	SUPREME: SUSTAINABLE NANOPARTI	Research communitie	Website	2 Communication in partner	Delivered
NKUA Website	ANNOUNCEMENT OF PARTICIPATION	Research communitie	Website	1 Communication partner we	Delivered
NKUA LinkedIn	NKUA participation in SUPREME pro	Research communitie	Social media	3 reactions	Delivered
SUPREME LinkedIn	UoB Publication https://www.linke	Research communitie	Social media	193 impressions, 2 reaction	Delivered
SUPREME LinkedIn	WU Participation in 12th NanoSafet	Research communitie	Social media	171 impressions, 2 reaction,	Delivered
Event ITMA Fair 2023	Participation of NTT in ITMA Fair 2	Industry, business par	Event (conference, meeting, workshop, interne	200 visitors	Delivered
SUPREME LinkedIn, PCN Materials P.C. LinkedIn	Innodays 2023 https://www.linke	Research communitie	Exhibition	287 impressions,30 reactions	Delivered
Print materials NTT ITMA Fair 2023	Participation of NTT in ITMA Fair 2	Industry, business par	Print materials (brochure, leaflet, posters, stick	100 leaflets distributed	Delivered
PCN Materials P.C. LinkedIn	Researcher's night 2023 https://wv	Civil society	Event (conference, meeting, workshop, interne	787 impressions, 34 reaction	Delivered
Supreme linkedin	https://www.linkedin.com/feed/u	Research communitie	Social media	2011 impressions, 44 likes, 2	Delivered

Communications Activities

Communication Activity Name	Description	Who? Target audience	How? Communication channel	Outcome	Status
RIVM Website	Sustainable nanoPaArticles Enabled	Research communitie	Website	1 Communication in partner	Delivered
UoB Website	Formulation engineering is crucial	Research communitie	Website	1 Communication in partner	Delivered
WU Website	Strategy to mitigate disease outbre	Research communitie	Website	1 Communication in partner	Delivered
NTUA Website	SUPREME: SUSTAINABLE NANOPARTI	Research communitie	Website	2 Communication in partner	Delivered
NKUA Website	ANNOUNCEMENT OF PARTICIPATION	Research communitie	Website	1 Communication partner we	Delivered
NKUA LinkedIn	NKUA participation in SUPREME pro	Research communitie	Social media	3 reactions	Delivered
SUPREME LinkedIn	UoB Publication https://www.linke	Research communitie	Social media	193 impressions, 2 reaction	Delivered
SUPREME LinkedIn	WU Participation in 12th NanoSafet	Research communitie	Social media	171 impressions, 2 reaction,	Delivered
Event ITMA Fair 2023	Participation of NTT in ITMA Fair 2	Industry, business par	Event (conference, meeting, workshop, interne	200 visitors	Delivered
SUPREME LinkedIn, PCN Materials P.C. LinkedIn	Innodays 2023 https://www.linke	Research communitie	Exhibition	287 impressions,30 reactions	Delivered
Print materials NTT ITMA Fair 2023	Participation of NTT in ITMA Fair 2	Industry, business par	Print materials (brochure, leaflet, posters, stick	100 leaflets distributed	Delivered
PCN Materials P.C. LinkedIn	Researcher's night 2023 https://wv	Civil society	Event (conference, meeting, workshop, interne	787 impressions, 34 reaction	Delivered
Supreme linkedin	https://www.linkedin.com/feed/u	Research communitie	Social media	2011 impressions, 44 likes, 2	Delivered
Supreme LinkedIn	https://www.linkedin.com/feed/u	Research communitie	Social media	4 like, 125 impressions	Delivered
SUPREME LinkedIn	SUPREME Kick-off https://www.linl	Research communitie	Social media	73 reactions, 2 comments, 1,	Delivered
SUPREME Website	SUPREME Website goes LIVE https://	Research communitie	Website	797 users	Delivered
PCN Materials P.C.	Attica Green Expo 2024 (Invited to	Civil society	Exhibition	50 invited participants, > 100	Delivered
SUPREME X/Twitter	SUPREME Kick-off https://twitter.c	Research communitie	Social media	4 re-tweet, 469 impressions,	Delivered
PCN Materials LinkedIn	PCN participation in "Researcher's	Civil society	Social media	34 reactions, 2 share	Delivered
SUPREME X/Twitter	SUPREME website launch https://t	Research communitie	Social media	2 re-tweets, 70 Impressions	Delivered

Communication Activity Name	Description	Who? Target audience	How? Communication channel	Outcome	Status
RIVM Website	Sustainable nanoPaArticles Enable	Research communitie	Website	1 Communication in partner	Delivered
UoB Website	Formulation engineering is crucial	Research communitie	Website	1 Communication in partner	Delivered
WU Website	Strategy to mitigate disease outbre	Research communitie	Website	1 Communication in partner	Delivered
NTUA Website	SUPREME: SUSTAINABLE NANOPAR	Research communitie	Website	1 Communication in partner	Delivered
NKUA Website	ANNOUNCEMENT OF PARTICIPATIOI	Research communitie	Website	1 Communication partner w	Delivered
NKUA LinkedIn	NKUA participation in SUPREME pr	Research communitie	Social media	3 reactions	Delivered
SUPREME LinkedIn	UoB Publication https://www.link	Research communitie	Social media	110 impressions, 1 reaction	Delivered
SUPREME LinkedIn	WU Participation in 12th NanoSafe	Research communitie	Social media	171 impressions, 2 reaction,	Delivered
Event ITMA Fair 2023	Participation of NTT in ITMA Fair 2	Industry, business pa	Event (conference, meeting, workshop, intern	200 visitors	Delivered
PNO Portugal LinkedIn	SUPREME website launch https://	Industry, business pa	Social media	4 reactions, 113 Impressions	Delivered
Print materials NTT ITMA Fair 2023	Participation of NTT in ITMA Fair 2	Industry, business pa	Print materials (brochure, leaflet, posters, stic	100 leaflets distributed	Delivered
SUPREME LinkedIn	SUPREME website launch https://	Research communitie	Social media	16 reactions, 1 comments, 6	Delivered
PNO Innovation Place Twitter	SUPREME website launch https://	Industry, business pa	Social media	26 views, 1 reaction	Delivered
ISOMAT Press Release	ISOMAT PARTICIPATES IN THE EURC	Industry, business pa	Press release	1 Press release	Delivered
SUPREME LinkedIn post	SUPREME Kick-off https://www.lil	Research communitie	Social media	71 reactions, 2 comments, 1	Delivered
SUPREME Website	SUPREME Website goes LIVE https://	Research communitie	Website	339 users	Delivered
ISOMAT Website	ISOMAT participates in the Europea	Industry, business pa	Website	1 Communication in partner	Delivered
ISOMAT LinkedIn	ISOMAT's participation in SUPREME	Industry, business pa	Social media	49 reactions, 3 reposts	Delivered
SUPREME Twitter	SUPREME Kick-off https://twitter	Research communitie	Social media	1 re-tweet, 38 Impressions	Delivered
SUPREME Twitter	SUPREME website launch https://	Research communitie	Social media	2 re-tweets, 70 Impressions	Delivered

Figure 15. EC Participant Portal Grant Management Services \ Project Continuous Report \ Communication Activities

8 UPDATED ROADMAP FOR FUTURE ACTIVITIES

As SUPREME moves into its second half, dissemination and communication activities will be strategically intensified and adjusted to ensure alignment with the KPIs defined in D8.2 and reassessed in this deliverable. The next phase will focus on reinforcing efforts across all areas: social media, website traffic, publications, events. This aims to either meet the original targets or, where needed, propose adjustments with clear justifications.

To enhance social media engagement, the project will focus efforts on LinkedIn, which has proven more effective than X/Twitter in reaching target stakeholders such as researchers, industry professionals, and EU project networks. A more frequent posting schedule will be introduced, with diversified formats including short videos, infographics, and behind-the-scenes content from laboratories or partner facilities. Additionally, partners will be encouraged to amplify visibility by sharing posts through their own institutional channels. Given the limited engagement seen on X/Twitter and the broader trend across EU-funded projects to deprioritize the platform, it is reasonable to consider revising the KPI for Twitter followers to a more realistic target.

Website traffic has reached 1,500 users by M24, which is still far from the M48 target of 20,000. To address this gap, the website will be increasingly used as a central dissemination tool for new results, publications, and upcoming deliverables. Content updates will be more frequent and SEO optimization will be explored to improve visibility in search engines. The consortium will also improve backlink strategies through partners' websites and project-related platforms (e.g., CORDIS, EU clusters). If, after implementing these strategies, traffic growth remains modest, the consortium may consider adjusting the KPI to reflect a more realistic benchmark based on performance across similar EU projects.

For the newsletter, the current number of subscribers (60) is still low compared to the target of 1,000 by M48. To scale up this number, the consortium will use multiple strategies, such as expanding outreach at events, integrating subscription prompts on the website, and encouraging partners to share the newsletter within their networks. Each edition will feature more interactive content and showcase project results in an accessible format. While it remains feasible to reach the original KPI by M48, if growth remains limited in the coming months, the consortium may propose a revised target based on practical constraints and sector benchmarking.

In terms of scientific publications, SUPREME currently has one peer-reviewed article published and aims to reach 30 by the end of the project. As more technical results are generated through validation activities, LCA, and pilot-scale applications, partners will be supported in preparing joint publications. Calls for contributions and templates for key topics will be developed to facilitate the drafting process. If challenges persist, such as long review times or lack of publishable data in certain areas, the target could be revised slightly to reflect a realistic, yet still ambitious goal.

Event participation has already exceeded expectations, with 21 events attended versus a target of 16. This area of activity is progressing well, and continued participation in key international conferences, fairs, and stakeholder workshops will sustain visibility. However, the number of events organized directly by SUPREME remains below the original plan. With the doctoral school and final dissemination event planned, this KPI should still be achievable. If the second internal event cannot

be organized for any reason, the KPI target may be adjusted, clearly explaining the justification in D8.4.

For press releases, only one has been issued to date, out of a target of eight. Given the challenges in producing regular press releases and the limited media engagement seen so far, the consortium is now exploring alternative approaches, such as publishing accessible, article-style content in outlets like The Conversation, Horizon Magazine, or EU Reporter. These platforms often result in broader media pick-up and greater visibility. If successful, the consortium may propose recognizing such publications as equivalent to traditional press releases and revising the target accordingly.

In summary, SUPREME's roadmap for dissemination and communication will be guided by targeted and scalable actions aligned with the evolving nature of the project. In areas where KPIs are not yet on track, the consortium will implement corrective actions and, where needed, provide clear justifications for revising targets based on relevance, feasibility, and benchmarking with comparable Horizon Europe projects. This flexible yet strategic approach will ensure that SUPREME's outreach remains credible, impactful, and aligned with stakeholder expectations.

9 CONCLUSIONS

The dissemination and communication activities of the SUPREME project have played a vital role in engaging key stakeholders and raising awareness of the project's objectives and outcomes. Over the first 24 months, the project has leveraged a diverse range of dissemination channels, including scientific conferences, industry fairs, training schools, newsletters, social media, and the project website, to effectively communicate its progress and results. These efforts align with the objectives set in D8.2 (Dissemination and Communication Plan), ensuring that SUPREME remains visible within both the scientific community and industrial sectors.

During this period, significant milestones were achieved. SUPREME has been actively represented in over 20 international events, contributing to knowledge exchange and fostering collaborations with EU-funded sister projects. The publication of the first peer-reviewed scientific article in Nanomaterials further reinforced the project's credibility in the research community. Additionally, the SUPREME LinkedIn page has grown steadily, reaching 362 followers, while newsletters have successfully engaged an expanding audience. The project website, serving as a central hub for information, has accumulated over 1,500 visitors and continues to be updated with new content, including deliverables, news, and event highlights.

Despite these achievements, challenges have been encountered, particularly in areas such as press releases, organized events, and social media diversification. Some delays were necessary to align dissemination activities with technical developments and research milestones, ensuring that shared content remains relevant and impactful. To address these gaps, the consortium is refining its communication strategy by prioritizing targeted outreach, expanding scientific publications, increasing engagement with stakeholders, and optimizing the frequency and format of social media interactions.

Looking ahead to M48, the SUPREME consortium remains committed to enhancing its dissemination impact. The next phase will focus on scaling up scientific publications, organizing dedicated

workshops and training schools, and increasing visibility in industrial and policy-making communities. By leveraging the lessons learned in the first half of the project, SUPREME aims to ensure that its innovations in antimicrobial, antiviral, and antifungal nanocoatings reach relevant markets and stakeholders, fostering broader adoption and long-term sustainability.

As the project progresses, D8.4 (Final Report on Dissemination and Communication Activities) will provide a comprehensive evaluation of the effectiveness of SUPREME's outreach efforts, ensuring that all KPIs are met and that the project's results continue to generate impact beyond its duration.