

SUSAAN

SUStainable **Antimicrobial**
and **Antiviral Nanocoating**

December 2024 **5th NEWSLETTER**

IN THIS ISSUE :

1. SUSAAN progress in Antimicrobial and Antiviral Testing
2. SUSAAN synergies and collaborations with its Sister Projects
3. SUSAAN present at local and European Events

SUSAAN is pioneering Nanocoatings Formulation Focus on Antiviral and Antimicrobial Efficacy

In the race to mitigate the spread of infectious diseases, antiviral (AV) and antimicrobial (AM) tests are playing a pivotal role in advancing sustainable nanocoating technologies.

A key milestone in this effort is the SUSAAN project, which is successfully validating a new sustainable antimicrobial and antiviral nanocoating across various final products, including high-traffic objects made of plastic and metal, as well as textiles. By demonstrating significant technical advantages and presenting comparative results against existing solutions, the project is aiming to showcase the efficacy of SUSAAN innovations to potential clients, paving the way for their widespread adoption.

We are excited to share the progress on the evaluation of our innovative antiviral nanocoatings, which are being tested on textiles, plastics, and metallic surfaces. These coatings are being assessed against bovine coronavirus (BCoV) and feline calicivirus—recognized surrogates for human pathogens.



Unlocking the potential of antiviral and antimicrobial nanocoatings through testing

The COVID-19 pandemic heightened awareness of surface-transmitted infections, emphasizing the need for antiviral solutions. Antimicrobial coatings not only prevent pathogen growth but also ensure longer product lifespans and reduced maintenance.

Antimicrobial and Antiviral tests verify a coating's ability to neutralize viruses, bacteria, and fungi, ensuring it performs under real-world conditions such as frequent touch, humidity, or wear. By identifying the most efficient formulations SUSAAAN Project is testing the nanocoatings in order to optimize durability and effectiveness. This is particularly important for applications in high-touch objects in hospitals, and consumer goods, where reliable infection control can significantly reduce the spread of diseases and enhance public health outcomes.



Photos for Antimicrobial tests provided by LUREDERRA, SUSAAAN Partner.

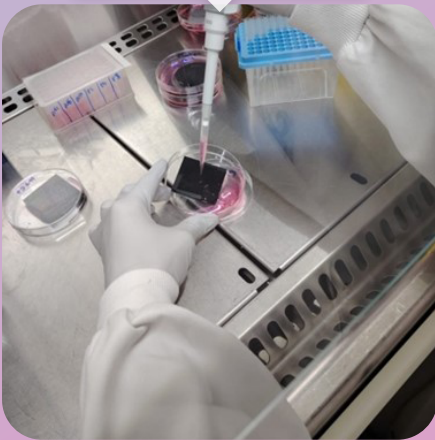


Testing protocols for antiviral coatings : Ensuring consistency and accuracy

According to our expert partners from VIRHEALTH, the trials adhere to internationally recognized standards to ensure reliable and reproducible results:

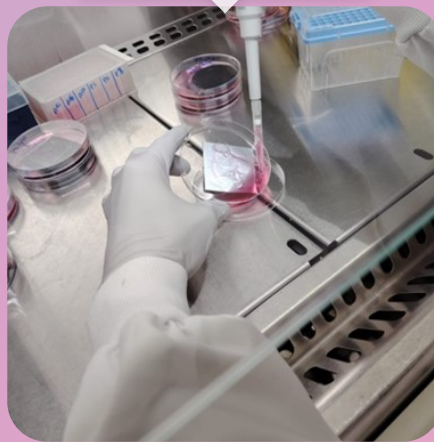
- **Plastics and Metallic Surfaces** : The antiviral activity is evaluated following the **ISO 21702** standard with a 24-hour contact time.
- **Textiles** : Testing complies with the **ISO 18184** standard, employing a 2-hour contact time for viral exposure.
- **Hydrophobic Textiles** : Recognizing the challenge of depositing a liquid viral inoculum on hydrophobic surfaces, an innovative approach was adopted. Using an adapted version of the **ISO 20743** protocol (originally designed for assessing antibacterial activity), a dry inoculum transfer method was developed specifically for virus testing.

Plastic surfaces

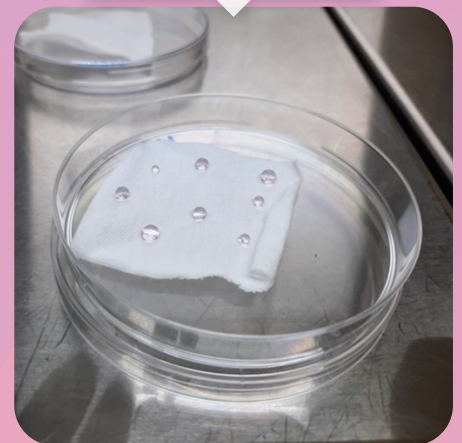


Photos for Antiviral tests provided by VIRHEALTH, SUSAAAN Partner.

Metal surfaces



Textile surfaces



SUSAAAN
SUSustainable Antimicrobial
and Antiviral Nanocoating



Funded by
the European Union

December 2024 / **5th NEWSLETTER**

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. Horizon Europe Programme for Research and Innovation under the Grant Agreement N° 101057988



Expected benefits of AV/AM tested nanomaterials for industry and consumers

- **Ensuring Product Efficacy** : Nanomaterials tested to meet international standards.
- **Building Consumer Trust** : Proven efficacy increases market confidence, particularly in healthcare and personal protective equipment sectors.
- **Reducing Cross-Contamination** : Enhanced hygiene in healthcare and public spaces.

Plastic surfaces



Photos provided by SUSAAAN Industrial Partners.

Metal surfaces



Textile surfaces



SUSAAAN
SUSustainable Antimicrobial
and Antiviral Nanocoating



Funded by
the European Union

December 2024 / 5th NEWSLETTER

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. Horizon Europe Programme for Research and Innovation under the Grant Agreement N° 101057988

SUSAAN is strengthening collaborations with Sister Projects

The SUSAAN Project strengthens meaningful collaborations with its sister initiatives, **RELIANCE**, **NOVA**, **MIRIA**, **STOP**, **NANOBLOC**, driving collective progress and shared impact emphasizing the commitment to developing sustainable antiviral and antimicrobial coatings. Below is an overview of recent and upcoming activities you would not wish to miss:



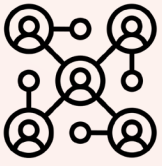
SUSAAN
SUStainable Antimicrobial
and Antiviral Nanocoating



Funded by
the European Union

December 2024 / **5th NEWSLETTER**

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. Horizon Europe Programme for Research and Innovation under the Grant Agreement N° 101057988



Nanoinnovation Conference

Date : 13th September 2024 / Location : Sapienza University of Rome, Italy

This pivotal workshop, organized by the **MIRIA Project** as part of the **Nanoinnovation Conference 2024**, brought together researchers, industry leaders, and innovators to explore cutting-edge advancements in sustainable antimicrobial coatings. SUSAAN, alongside RELIANCE, MIRIA, and PROPLANET, presented detailed overviews and progress updates on their respective projects. At this conference: SUSAAN had the opportunity to present an overview of the project and the latest progress in Sustainability assessment.

Key highlights of this event included:

- Insightful presentations on nanocoating applications in healthcare and high-touch surfaces.
- Discussions on the critical role of these technologies in enhancing surface hygiene and preventing infections.
- Showcasing the growing potential of nanocoatings as effective, sustainable solutions to meet increasing global demands.



Members of MIRIA, RELIANCE, and SUSAAN Project presenting at Nanoinnovation Event in Rome.



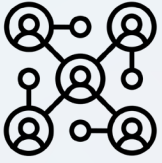
SUSAAN
SUSustainable Antimicrobial
and Antiviral Nanocoating



Funded by
the European Union

December 2024 / **5th NEWSLETTER**

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. Horizon Europe Programme for Research and Innovation under the Grant Agreement N° 101057988



Antimicrobial Coatings Conference

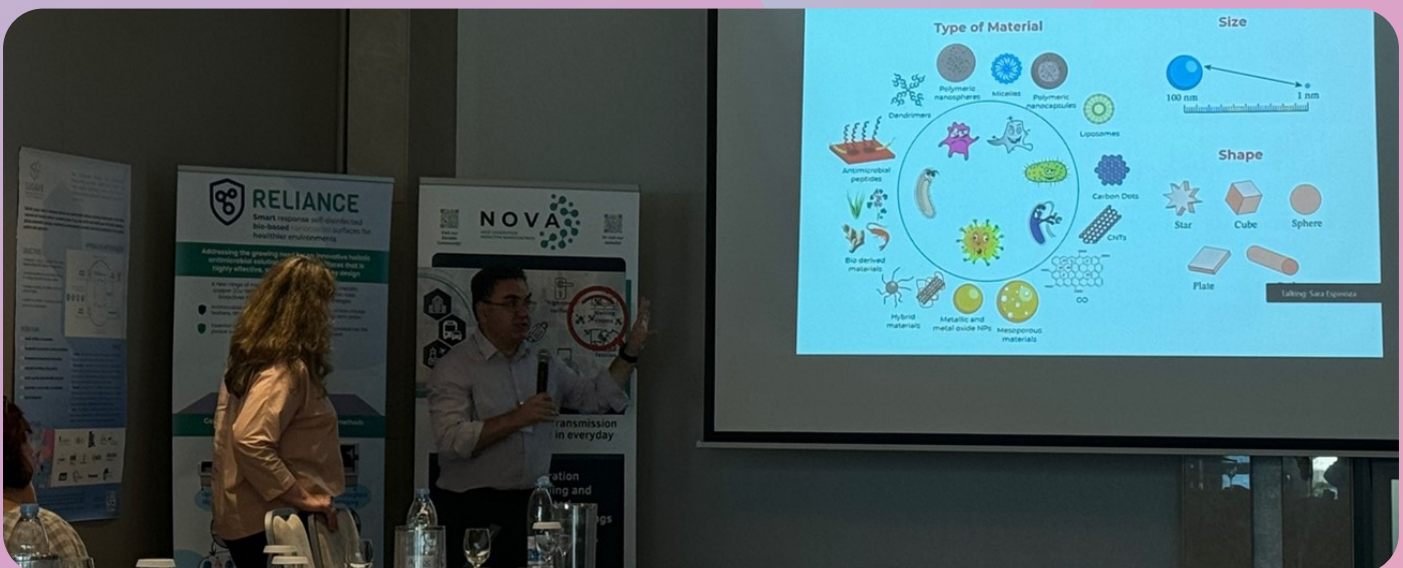
Date : 5th - 6th December 2024 / Location : Van der Valk Hotel, Mons, Belgium

Building on the momentum from Materials Week 2024 in Cyprus which join the related initiatives funded by European Commission and working towards sustainable antiviral and antimicrobial nanocoatings, the STOP project, in collaboration with the European Ceramic Society, is currently organizing a dedicated two-day conference with expected participation from partners in sister projects.

This event will be held in conjunction with a meeting of the EU Innovative Training Network (ITN) on Antimicrobial Integrated Methodologies (AIMed), further enriching discussions.

CELABOR will showcase the SUSAAN Project in the following presentation :

- Development of bio-based nanofibers and plant-based extracts for antimicrobial coatings in the context of SUSAAN project.



Members of STOP EU and SUSAAN Project moderating the materials session in Cyprus.



December 2024 / 5th NEWSLETTER

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. Horizon Europe Programme for Research and Innovation under the Grant Agreement N° 101057988

SUSAAN is regularly disseminating results at local and European events

The SUSAAN Consortium is actively engaged in the dissemination of its results at both local and European events, ensuring a broad reach and impactful communication of its findings. Through participation in conferences, workshops, and stakeholder meetings, SUSAAN fosters dialogue and collaboration with diverse audiences, including researchers, policymakers, and industry leaders. These engagements not only showcase the project's advancements but also encourage the exchange of ideas and the integration of its outcomes into practical applications.

We are thrilled to inform you that **LUREDERRA** Joins SUSAAAN and Other European Projects at **NEXUS 2024**, Held on October 17th in Pamplona, Spain, under the theme "Where Navarra Meets Europe".



Marta Mateo, the SUSAAAN Project coordinator took the stage to present key insights into the work that is currently underway. She emphasized the relevance of nanomaterials research in shaping the future of sustainable practices, and showcased the achievements made so far in the project's development.

Marta Mateo from Lurederra, SUSAAAN project coordinator presenting at NEXUS 2024.

The event brought together a diverse array of projects focused on technological innovation, sustainable development, and cross-border collaboration. LUREDERRA's involvement highlighted its ongoing commitment to advancing research and innovation of nanocoatings. The NEXUS event served as an important platform for fostering dialogue, sharing knowledge, and forging new partnerships within the European research and innovation ecosystem. LUREDERRA's participation in the event underscores its role as a key player in the continued development of solutions that bridge research and real-world applications. LUREDERRA recently had the opportunity to present SUSAAAN project to two important groups during key visits to their facilities:

- In a meeting with the Regional Leaders for Innovation of Navarre, Spain, the company highlighted the project's potential for advancing regional innovation and sustainable development. This presentation provided a platform for discussing how SUSAAAN aligns with the region's goals for growth and technological progress.
- Additionally, in October, LUREDERRA shared the project's vision with the Community Foundations Contribution to Local Development, underscoring its role in fostering local community growth and contributing to sustainable development efforts.



The Community Foundations Contribution to Local Development visiting Lurederra Facilities, photo provided by LUREDERRA.

We are pleased to share that our partners from **CELABOR** presented the development of bio-based active materials for textiles and high-traffic objects, investigated under the framework of the SUSAAAN Project, at the International Congress on Natural Products Research (ICNPR 2024). The conference took place from July 13-17, 2024, in Krakow, Poland, as part of the Symposium Cracoviense. This prestigious event brought together leading scientists, researchers, and industry experts to explore cutting-edge natural product solutions. Focused on the potential of bio-based materials, the conference highlighted their role in enhancing the functionality and sustainability of textiles and high-traffic objects, offering a valuable platform for collaboration and knowledge exchange in natural products research.



PhD.Emilie Stierlin from CELABOR srl at the International Congress on Natural Products Research.

We are thrilled to share that the IVW had an amazing time participating in the **Experiment Days of MI(N)Tmachwelt 2024**, held at the Kaiserslautern Gartenschau.



This vibrant event brought together curious minds of all ages, offering an exciting platform to explore the wonders of science and technology. Our colleague Lyudmila from IVW showcased a variety of engaging scientific activities, sparking the imaginations of children, teenagers, and even their parents! As part of this exhibit, she introduced the SUSAAAN project, capturing the interest of attendees and sharing insights into its innovative goals and impacts on nanomaterials.

IVW team participating in the Experiment Days of MI(N)Tmachwelt 2024. Photo provided by IVW.

We are excited to announce that Gaia Vegezzi , Regulatory Manager from **INTERTEK** presented at the **Turkchem Event**, which took place from November 27-29, 2024, at the Istanbul Expo Center. This major industry event brought together leading professionals to discuss key topics, including the EU Biocidal Product Regulation (EU-BPR) and its relevance in several projects, including SUSAAN.



Turkchem Event 2024. Photo taken from the event webpage.

During the session, INTERTEK provided insights into the EU-BPR framework and shared valuable knowledge at this key event. The impact of the regulation on biocides was discussed, while also highlighting the progress and significance of the SUSAAN Project. This was an excellent opportunity for industry stakeholders to learn about the latest regulatory developments and innovative solutions driving the sector forward.

Click here to get to know more about the programme of this event: [programme.pdf](#)



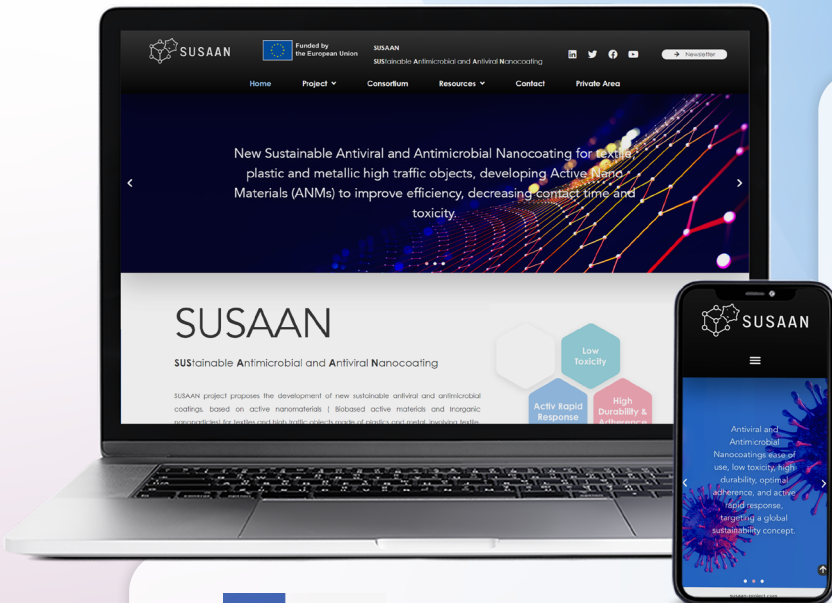
Funded by
the European Union

December 2024 / **5th NEWSLETTER**

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. Horizon Europe Programme for Research and Innovation under the Grant Agreement N° 101057988

We would love to have you join our growing community !

Thank you for reading! We hope you found this edition of our newsletter insightful and enjoyable. Stay connected. Don't miss out on updates, news, and exclusive content sign up today!



Join us !

-  linkedin.com/susaan-project
-  x.com/susaanproject
-  facebook.com/susaanproject
-  susaan-project.com
-  contact@susaan-project.com



December 2024 / 5th NEWSLETTER

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. Horizon Europe Programme for Research and Innovation under the Grant Agreement N° 101057988