



Funded by
the European Union



GrInShield newsletter

1st

GrInShield has received funding from the European Union's Horizon Europe Coordination and Support Actions under grant agreement No. 101079151.

With Vinca (SRB) as a coordinator, FTPO (SI), CNRS-IEMN (FRA), and University in Oldenburg (GER), GrInShield was launched on November 1st, 2022. The general aim is to improve the coordinator's administrative capacity. GrInShield gathers scientists from four different fields: nanomaterials, polymer science, micro/nanoelectronics, and robotics to increase scientific strength, empower collaboration, and develop new cutting-edge composite materials for protection against electromagnetic irradiation.

A word from Dr. Svetlana Jovanovic, the project coordinator

Dear All,

Firstly, let me express gratitude to the European Commission that believed in our idea presented in GrInShield Project and provide us with the funds necessary to develop the proposed research tasks.

Secondarily, but equally important, I want to share my appreciation to all four Partners of the GrInShield Consortium for their enthusiasm, hard work, and dedication, from the proposal phase through, Grant Agreement preparation to this first 6 months of the project. Gowned by enthusiasm gather around the unique idea, each partner brought a different perspective on the scientific issue which resulted in the success of the initiative.

During the first six months of GrInShield, I had the opportunity to see the incredible efforts, care, reliability, and responsibility of the Partners! All goals foreseen in this period were achieved, thanks to:

- CNRS, FTPO, UniOldenburg, and VINCA for effort in the achievement of the MSI, for work conducted to deliver two major GrInShield documents – data management plan and dissemination plan,
- CNRS for their visit, meeting organization, initiative, and punctual experienced support,
- Uni Oldenburg for the hosting of the incredible workshop in multimodular microscopic analysis,
- FTPO for hosting Ph.D. students from VINCA during one semester,
- VINCA for conducting WS for administration,
- CNRS, FTPO, UniOldenburg, and VINCA for devotion to continual communication of GrInShield goals, achievements, and future tasks through social networks to media.

In the end, one special thanks go to Ms. Sylvia OSIPOVA, GrInShield Project Officer. With her's comprehension and perseverance, she is guiding us in achieving EU requirements.

Considering the above-mentioned facts, I do not doubt that the GrInShield Project will move forward fairly and assist Partners in reaching their goals to mutual satisfaction.

Warm regards,

Svetlana Jovanovic, GrInShield project coordinator and the project implementation activities reached their full potential.



Partner Presentation – IEMN

The Institute of Electronics, Microelectronics and Nanotechnology (IEMN) is a Joint Research Unit associating CNRS (National Center of Scientific Research), the University of Lille. It relies on 5 supervisory bodies and a budget of €28M to develop miniaturized technologies. The institute has about 230 permanent staff (professors, researchers, engineers

and administrative personnel) and about 150 PhD students. Its equipment for the design, manufacture and characterization of devices is at the highest European level. The research carried out at the IEMN covers a vast field ranging from the physics of materials and nanostructures to telecommunications systems and acoustic and microwave instrumentation. A particular effort is put on micro and nanotechnologies (nanostructures and nanoelectronics, microelectronics, microwaves and microsystems). In the frame of GrinShield, IEMN will bring state of the art microwave techniques and instrumentations for multi-scale and broadband frequency characterization and modelling of graphene based shielding materials and products.



Kick-off meeting

On November 21-23rd 2022, Belgrade was the host of the kick-off meeting of the GrInShield project. Consortium members from Serbia, Germany, and Slovenia gathered at Mona Hotel to discuss the implementation of the project and to define the specific tasks and roles of each participant. The GrInShield project officer Sylvia Osipof participated as well. Later, on February 7th, 2023 the French consortium members visited the Vinča Institute and the project implementation activities reached their full potential.



GrInShield is in the news!

Since the GrInShield project started more than 10 newspaper articles wrote about the main objectives of the project. One article was published in Politika, a daily newspaper with a tradition of more than a century. GrInShield got a place on the front page of this respectable newspaper. An article was also published by others: portals such as euronews.rs, poslovni.co.rs, capital.ba, nezavisne.com, and the website of the Italian Trade Agency. Besides, the GrInShield was presented to a broad audience on Radio Television of Serbia which is Serbia's national broadcaster – in The morning program and Scientific portal. The official **GrInShield** website was launched in January 2023.



Our new equipment

As a way to characterize a surface as hydrophilic or hydrophobic, a contact angle measurement is an inevitable tool in surface analysis. In the GrInShield project we aim to produce thin films of graphene-based composites and therefore reliable and durable equipment for contact angle measurement is essential. This Theta Lite contact angle meter from Biolin Scientific is equipped with a 2068 FPS camera that provides exceptionally precise drop shape analyses with 1280 × 1024 pixel resolution. Combined with intuitive software, a contact angle measurement of our thin films will be done in no time.



Thermocouples are handy tools to measure temperature when conventional thermometers are off the table. For this reason, we purchased a Flus ET-939 thermocouple, a light and portable device capable to support a wide temperature range. With its quick response to any temperature changes and 0.1°C resolution, it will find a special place in our laboratory.



Course at FTPO

Two Ph.D. students from Vinča Institute, Anđela Stefanović and Aleksandra Mišović, are attending a three-month course at the Faculty of Polymer Technology in Slovenj Gradec in Slovenia. By following lectures from top-class professors and using cutting-edge equipment for polymer processing and analysis, they will develop new skills that will be crucial for their future careers development. We are sure they will enjoy their stay in the lovely and picturesque town of Slovenj Gradec and make new friends among fellow students.



Workshop at Uni Oldenburg

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The first **GrInShield** workshop project was held on March 20-23rd 2023 at the University of Oldenburg in Germany. We want to thank Dr. Fabian von Kleist Retzow, Dr. Waldemar Klauser, and Dr. Muhammad Yasir for their inspiring lectures on various microscopy techniques namely Atomic Force Microscopy (AFM), Scanning Electron Microscopy (SEM), and Scanning Microwave Microscopy (SMM). The participants were able to witness how challenging it is to manipulate objects at the nanoscale level and to emphasize how important and unavoidable tools these microscopy techniques are when it comes to carbon nanomaterial composites.



Training for Vinča administrative staff

We were happy to host the European Training Academy (EUTA) workshop at the Vinča Institute in April 2023. For four days experts from EUTA held Training for the preparation, writing, and implementation of projects under the Horizon Europe framework and demonstrated practical and useful aspects of every step on this journey. We would like to give special thanks to Ratko Bojović, the EUTA executive manager, as well as to MSc Gordana Vlahović, Prof. Dr. Goran Stojanović, and MSc Marija Šola Spasić for their time and helpful tips and know-how. We would also like to highlight the great help we had from EUTA in writing and improvement of the GrInShield project proposal.



Careers development in the GrInShield

GrInShield coordinator Dr. Svetlana Jovanovic has become a Full Research Professor while one of the youngest GrInShield participants, Sladjana Dorontic defended her Ph.D. thesis at the Faculty of Physical Chemistry!



To register in GrInShield's diffusion list, please contact Svetlana Jovanovic at grinshieldtwinning@gmail.com



Here you can find important news and the biggest achievements of the project.

Make sure to subscribe to GrInShield's profiles so you don't miss any of our upcoming events. Also, we launched a website - grinshield.eu where you can find all the relevant data about the project.

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