CoBRAIN

Integrated Computational - Experimental Material Engineering of Thermal Spray Coatings

NEWSLETTER

Issue 6, February 2026

IN THIS ISSUE...

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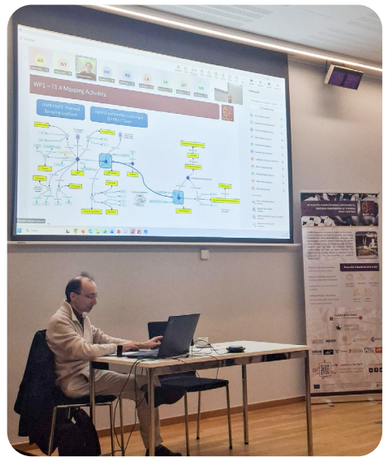
2ND REVIEW MEETING (30 JAN, 2026)

The 2nd CoBRAIN Review Meeting, held on 30 January in Brussels, was a highly successful and encouraging milestone for the project. Hosted by the project coordinator, Università degli Studi di Modena e Reggio Emilia (UMR), at the Emilia-Romagna Region – Delegation to the European Union premises, the meeting brought together all consortium partners for a full day of presentations, discussions, and exchange. Each partner presented their ongoing activities and achievements, pro-



viding a clear overview of the project's progress and demonstrating the strong commitment and collaboration across the consortium.

A key highlight of the meeting was the constructive and engaging dialogue with the Project Officer and Reviewer, which allowed for an open exchange of views and valuable feedback. The consortium successfully addressed all comments and questions raised, clearly demonstrating the maturity of the project, the robustness of the technical approach, and the effectiveness of the coordination and col-

laboration mechanisms. The discussions confirmed that the project is progressing as planned, with results aligned to the objectives set out in the Grant Agreement.

Overall, the Review Meeting was marked by a very positive atmosphere and strong alignment among all partners. It provided an excellent opportunity not only to reflect on achievements so far, but also to fine-tune plans and priorities for the next phase of the project. With clear direction, shared vision, and continued collaboration, CoBRAIN is well positioned to move forward successfully, building on the solid foundations already in place.

KIDS CORNER UPDATE

MINI GAMES FOR FAMILY

CoBRAIN’s Kids Corner continues to grow as a playful gateway to science, sustainability, and creativity. Following our participation in **Researchers’ Night 2025 in Athens**, where children enthusiastically explored our mini-games magazine, we expanded this initiative with new printable materials designed to make learning fun and accessible. Alongside the **English and Greek Summer and Autumn editions**, we recently released a special **Christmas edition**, filled with festive mini-games and stories that introduce CoBRAIN’s mission through the joy of the holiday spirit. A charming **CoBRAIN calendar** was also created, featuring our mascot and monthly sustainability-inspired messages. With updated riddles and activities now available on the website, Kids Corner highlights our belief that children, our future, can learn to think green and act sustainably when science is shared through fun, imagination, and curiosity.

CoBRAIN is disseminating its vision beyond the scientific community, actively engaging the general public through creative, accessible, and interactive initiatives. By transforming complex research into playful and relatable experiences, we ensure that sustainability and innovation are understood, shared, and embraced by all.

Come explore, learn, and enjoy the world of science like never before!

INTRODUCTION

Introduce yourself & your team, and describe your entity's role in the CoBRAIN project.

Prof. Sergi Dosta
CoBRAIN Partner

Head of the Materials Science Department

My name is Sergi Dosta, PhD since 2009. I'm the head of the Materials Science Department at Universitat de Barcelona (Spain). I'm also President of the European Society of Thermal Spray (ETSA) and an active member of the Cold Spray Club (CSC). A few years ago, I founded Surface, Treatments & Developments (SDT) research Group, and we are growing fast in terms of projects and research. My research is focused on surface engineering.

The main role that is developing in the CoBRAIN project is to perform coatings using Cold Gas Spray, leveraging the main power developed by the CoBRAIN consortium. The coatings are sprayed by Titomic in the Netherlands, and we are playing a good tandem with them because the results when HEAs are sprayed by CSC are really promising. Therefore, CGS and surface engineering backgrounds are our main contributions nowadays to the CoBRAIN project.

BEYOND THE RESUME

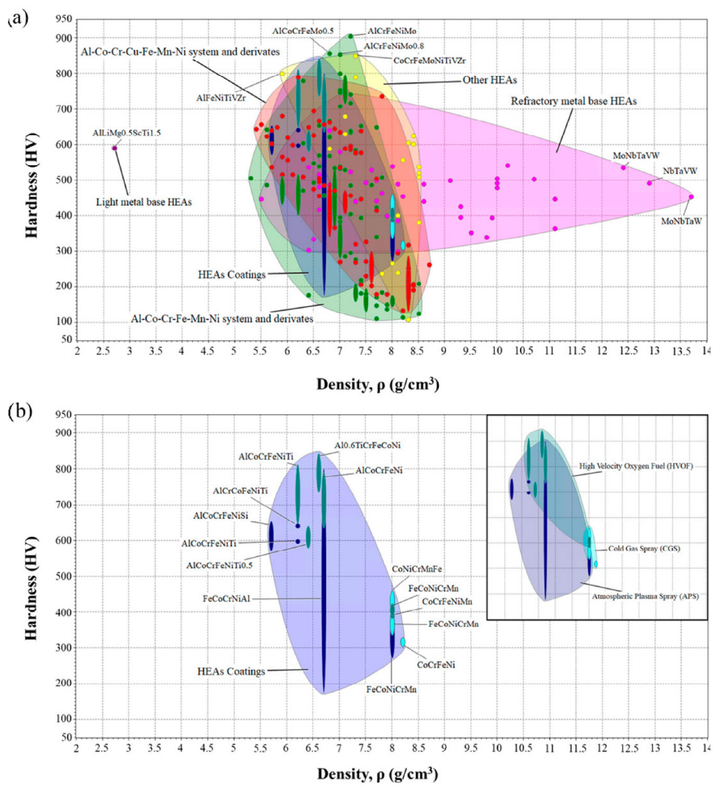
Could you share some background on your experience and expertise in this field?

I've been working in the research field for 21 years. I am the Surface, Developments and Treatments (SDT) group leader and head of the Materials Science and Engineering Department. I am Professor at Universitat de Barcelona since 2007, and President of the ETSA (European Thermal Spray Association) since June 2022, I was Vice-President before. I have a long teaching and research career. I've published more than 140 papers in high-level and internationally prestigious journals in the field and with a Hirsch index of 37 according to the SCOPUS database, with more than 4000 citations. In addition, I've a lot of experience in the thermal spray field, and specifically in Cold Gas Spray technology, collaborating with national and international research centers and companies. I've also participated in scientific committees of numerous prestigious conferences in his research area, such as the SMT, ITSC, etc. I am currently a principal investigator (PI) in 2 European projects of the Horizon Europe program, and in a MISIONES project at the Spanish level. In addition, I've been a PI or collaborating researcher in 25 research projects at the national level (MAT-National Materials Plan, CDTI, RETOS, CENIT, PROFIT), 6 at the European level within the EU Framework Program (STREP, NMP, HORIZON 2020), and 40 industrial technology transfer projects. I am ranked as top level researchers in my filed since GD-ORCID Spanish Ranking in 2025.

PLANNING AHEAD

What are the future plans and goals for your entity in the project?

The whole knowledge produced in CoBRAIN project will be the lessons learned for further developments in the field. Nowadays we are preparing several publications regarding HEAS properties when they are used to perform Cold Gas Spray coating. The most recent publication that SDT-UB has is about a HEAs database to be used for materials selection processes to perform materials-based design in terms of corrosion resistance and wear resistance, as well as the combination of both performance improvement. The paper was published recently in Coatings Journal: https://www.mdpi.com/2079-6412/15/8/865.



MEMORABLE MILESTONES

Is there a particular moment or achievement related to this project that you would like to share with us?

I think the best part of CoBRAIN project is to work together with old friends and new colleagues. The synergies that grow up every time that we met each other are amazing. They achieve the best part of my research and the dialogues and questions that come after every in person meeting help me to continue growing up and learning about the surface engineering field.

FOLLOW OUR JOURNEY

How can subscribers stay informed about your entity's achievements?

The main achievements of SDT research group will be found in my research profile in portals such as Research Gate, Academia, Scopus, or Google Scholar (Sergi Dosta). Also, my linked account is really active in updating news about SDT activities and news: https://www.linkedin.com/

Learn more in our new Website section "Voices from the Field"

CoBRAIN partners participated in several events, the second semester of 2025 showcasing CoBRAIN project, and the achievements so far.

Researchers' Night hosted by NTUA
EXE
Athens (Greece), 26 September 2025

PROPLANET's Consortium Meeting - Joining Forces
EXE
Lillestrom (Norway), 21 - 22 October 2025

Aachen Surface Engineering Colloquium
OBZ
Aachen (Germany), 5 December 2025

3 Scientific Papers
Unimore, MBN, UR3, UB
2025 - 2026

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Unimore, MBN, UR3, UB: 3 Scientific Papers

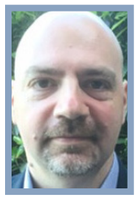
CoBRAIN FINAL EVENT

A forward glance at CoBRAIN's concluding milestones and its contribution to advancing safe and sustainable innovation. As the project reaches its final year, CoBRAIN will culminate its activities with the international conference COATINGS 2026: Safe and Sustainable by Design Surface Treatment and Coatings, which will take place in Athens, Greece, from 20–22 April 2026.

Co-organised by EXELISIS in collaboration with MDPI and the open-access journal Coatings, the event will serve as a key European meeting point for researchers, industry innovators, and stakeholders active in the coatings and surface finishing sectors.

COATINGS 2026 will highlight both established and emerging coating technologies, placing strong emphasis on the Safe and Sustainable by Design (SSbD) framework as a guiding principle for future industrial innovation and as a lasting legacy of the CoBRAIN project.

CONFERENCE CHAIRS



PROF. DR. LUCA MAGAGNIN
POLITECNICO

PROF. DR. EUGENIA VALSAMI-JONES
UNIVERSITY OF BIRMINGHAM

DR. ALEXANDROS ZOIKIS-KARATHANASIS
creative nano

SCIENTIFIC TOPICS

The program will include oral and poster presentations, structured under the following themes:

1. **Advances in metallic and metal matrix composite coatings**
2. **Advances in organic and hybrid coatings**
3. **Advances in coating methods and equipment**
4. **Surface finishing for Additive Manufacturing**
5. **Application of the SSbD framework in the surface finishing industry**
6. **Advances in Thermal Spraying**
7. **Thin film technologies and applications**
8. **Anodising of light alloys**
9. **AI tools and simulations for coating design and development**
10. **Phasing out Substances of Concern from industrial processes**

This conference will gather experts from academia, research organisations, EU-funded initiatives, and industry, creating the ideal environment for knowledge exchange, networking, and new collaboration opportunities.

ABSTRACT SUBMISSION & PARTICIPATION

Researchers and industry professionals are invited to contribute through:

ORAL PRESENTATIONS | **POSTER SESSIONS** | **CONFERENCE BOOTHS & NETWORKING**

You may register **HERE!**
We look forward to welcoming you to Athens!

exelisis coatings MDPI

FERRARI & HP UNVEIL LIGHTER, SMARTER FILM WRAP FOR F1!

In a sleek, performance-driven move, Scuderia Ferrari and Hewlett-Packard (HP) have co-engineered a new adhesive film wrap for the SF-25 that's rewriting the rules of car covering.

- **14% lighter, 17% thinner than past versions**
- **Better thermal resistance for scorching race conditions**
- **PVC-free & fully recyclable**
- **Printed using HP's Latex tech, blending function + style**

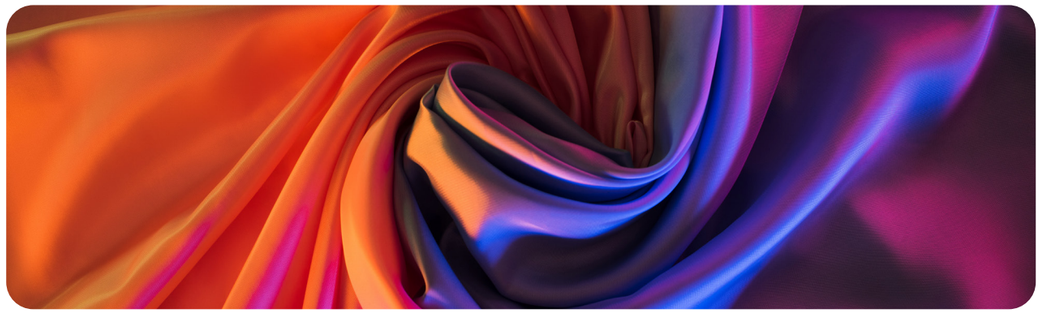
Why it matters: reducing weight and heat exposure is critical in F1, every gram saved and every degree managed affects speed and durability. This is right up CoBRAIN's alley: smart coatings/films + materials that push the envelope in performance and sustainability.

Stay tuned, CoBRAIN is tracking this closely, exploring how such film coatings could combine with sensors, surface engineering and AI-driven material selection in racing and other harsh domains.

Image Copyright © https://www.printindustry.news/story/49124/ferraris-f1-cars-get-dressed-with-hp-and-a-new-adhesive-film

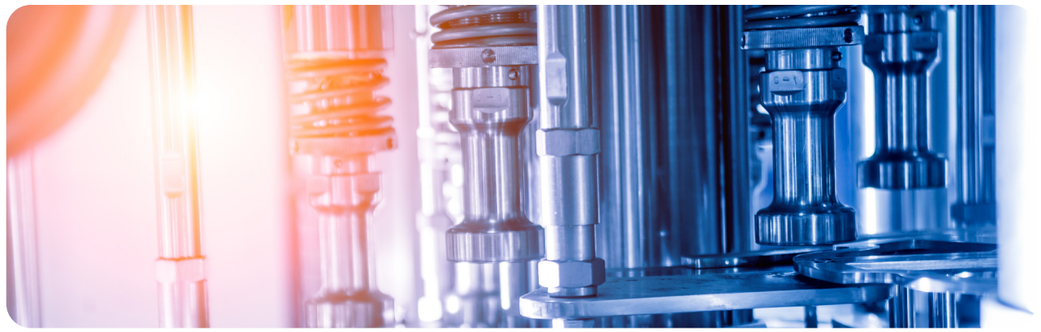
Discover the latest additions to CoBRAIN's Technology Blog, featuring two new articles that explore how advanced coating technologies and digital tools are transforming the textile and chemical industries. Stay informed on current and emerging trends and innovations. Take a moment to read them today!

9TH BLOG ARTICLE - INDUSTRIAL COATINGS IN THE TEXTILE INDUSTRY



In textile industry, mechanical and chemical stresses accelerate equipment degradation, resulting in downtime, waste generation, and increased operating costs. Industrial coatings protect equipment, maintain fabric quality, and extend machine life, while sustainable solutions reduce environmental impact. The CoBRAIN project develops high-performance, eco-friendly coatings and AI-driven tools to optimise maintenance and tailor solutions to specific processes, helping manufacturers improve efficiency, cut costs, and produce textiles sustainably.

10TH BLOG ARTICLE - INDUSTRIAL COATINGS IN THE CHEMICAL INDUSTRY



In the chemical industry, equipment operates under highly aggressive conditions, where corrosion, chemical attack, and mechanical wear can quickly lead to failures, safety risks, and costly downtime. Industrial coatings play a critical role in protecting metallic surfaces and ensuring reliable, continuous operation. The CoBRAIN project addresses these challenges by developing high-performance, safer coatings combined with data-driven and AI-supported tools that help industries select the most suitable solutions, extend equipment lifetime, and support more sustainable chemical processing.

To read the blog articles and learn more about CoBRAIN, visit our website

AiMPACT CLUSTER IN ACTION

As part of its commitment to collaboration and cross-project synergies, CoBRAIN actively contributes to the AiMPACT Cluster, an initiative bringing together complementary Horizon Europe projects working on advanced materials, modelling, and data-driven innovation. Through joint actions and shared communication efforts, the cluster strengthens collective impact, enhances visibility, and promotes a unified approach to sustainable and digital materials development across Europe.

The official "***AiMPACT in Action!"*** cluster video, showcasing a shared vision for advanced materials modelling, characterisation, and data-driven innovation across six pioneering Horizon Europe projects was officially launched. Developed with the support of the D-STANDART Project, the video brought the **AiMPACT's cluster collaborative identity** to life, uniting CoBRAIN together with AddMorePower, AID4GREENEST, D-STANDART, Knowskite-X, and MatCHMaker under a common mission to accelerate sustainable and digital materials development. By presenting each project's approach to materials modelling and innovation, the cluster strengthened its collective impact, reinforced cross-project synergies, and enhanced the visibility and reach of its scientific outcomes. Through this collaboration, the AiMPACT cluster demonstrated how coordinated efforts can amplify innovation, foster knowledge exchange, and contribute more effectively to Europe's sustainability and digitalisation goals in advanced materials research.

CHECK OUR CLUSTER VIDEO IN YOUTUBE

MEET THE CoBRAIN TEAM!

CoBRAIN

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UNIVERSITÀ DEGLI STUDI DI MODENA E REGGIO EMILIA

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