EFC
EUROPEAN FEDERATION OF CORROSION

December 2024

NEWSLETTER

Seeing the bigger picture in the fight against corrosion

"The paradigm is slowly changing. Society is not only requesting rapid and immediate solutions, but also sustainable ones"

Dear corrosionists,

There is a very true saying, "you can't see the forest for the trees". I remembered it when recently asked a couple of simple questions by a representative from an EFC Member Society. My main responsibility as the EFC President is to identify where EFC needs to grow and initiate corresponding processes. However, most of my time is taken up by signing documents, negotiating minor organisational changes, solving tiny daily problems, and discussing personal issues. Not much space is left to take a bird's eye view of EFC. So, I found it very refreshing when I was asked to answer these particular questions, which you can find, together with my answers within this issue of the EFC Newsletter.

Let me highlight just one aspect linked to the future of corrosion. I am a strong optimist here. The paradigm is slowly but surely changing. Society is not only requesting rapid and immediate solutions, but also sustainable ones. It is more and more important to consider the entire life cycle of products and beyond, including their recyclability. You cannot do it without corrosion scientists and engineers. We need to make sure that all design and material selection decisions are made from this perspective, which obviously means there's going to be an increased demand for well-educated and trained corrosion experts. I do not think that tools of artificial intelligence will replace us any time soon.

In fact, they can help us if they are cleverly integrated into the decision-making process; still, the role of experienced and educated individuals is indispensable. There is a lot of work ahead of us. We need to develop new complex materials with advanced properties and reduced environmental impact, make sure that they will survive long enough, and they are easily recyclable after the end of the use. I am thus not afraid of running into a bored corrosionist any soon.

Enjoy reading the EFC Newsletter.

Yours, Tomáš Prošek

INSIDE YOUR EFC NEWSLETTER

Welcome to EUROCORR 2025 from the Chair of the event

The Norwegian Corrosion Society announces details of Europe's largest corrosion conference, which next year be held in Stavanger

It is my great pleasure to invite you to EUROCORR 2025, taking place from Sunday 7 to Thursday 11 September in Stavanger, Norway.

The congress will be hosted at the Stavanger Forum, one of the largest and most modern conference venues in Norway, located just a short walk or a quick ride from the city centre.

With the theme of *Joining Forces for Smart and Sustainable Solutions for Fighting Corrosion in Society*, EUROCORR 2025 aims to bring together corrosion professionals from all over the world – scientists, researchers, industry experts, and innovators – to exchange insights, ideas, and advancements in corrosion science, technology, and engineering.

We believe the congress will provide a platform for significant progress in understanding corrosion phenomena and developing practical solutions to corrosion challenges. With plenary and keynote lectures, oral and poster presentations, and specialised workshops, we cover every aspect of the field. Moreover, the large exhibition will showcase the latest corrosion-resistant materials, technologies, monitoring tools, and more, allowing you to explore cutting-edge innovations from around the globe.

On behalf of the local organising committee, I also look forward to welcoming you to Stavanger, a city steeped in history and culture, as it celebrates its 900th anniversary in 2025. Don't miss the opportunity to experience our unique social programme, including the Conference Dinner at the stunning Stavanger Concert Hall and a scenic boat cruise through the breathtaking Lysefjorden.

We look forward to meeting you in Stavanger!

Torfinn Havn, Chair of EUROCORR 2025
Any questions? Contact eurocorr@gyro.no

45% OF SPONSORSHIP AND EXHIBITION SPACES ALREADY SOLD – BOOK NOW

The local organising committee in Stavanger are excited to announce that 45% of sponsorship packages and exhibition spaces for EUROCORR 2025 have already been sold. So, don't miss your chance to position your company, products, and services in front of an international audience of corrosion professionals.

By securing your sponsorship or exhibition package now, you guarantee your visibility at one of the industry's most important events, giving you premium exposure throughout the congress. Click here to explore the available options and book today to secure a prime location.

REGISTRATION IS NOW OPEN FOR EUROPE'S LARGEST CORROSION EVENT

Delegate registration for EUROCORR 2025 in Stavanger is now open. Don't miss out on Europe's premier corrosion event, where you'll have the chance to engage in conversation with leading corrosion experts, attend cutting-edge sessions, and network with peers from across the globe.

So, whether you're an academic, researcher, or industry professional, EUROCORR 2025 offers you the opportunity to stay ahead in corrosion science and technology.

Click here to register and secure your place.

DISCOVER STAVANGER – STAY A LITTLE LONGER!

Make the most of your visit to EUROCORR 2025 by exploring the stunning Stavanger region. Known for its breathtaking fjords, scenic hiking trails, and rich Viking history, Stavanger offers endless opportunities for adventure and relaxation.

Arrive a few days early or extend your stay to experience iconic sites like Preikestolen (Pulpit Rock) and the magnificent Lysefjord. Explore more of the long stretches of beaches, fjords, mountains, and the mighty North Sea coastline close to Stavanger on the EDGE OF NORWAY.

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IMPORTANT DATES FOR YOUR DIARY

Abstract Submission Deadline:
17 January 2025
Notification of Acceptance to authors:
April 2025
EARLY BIRD Registration Deadline:
1 June 2025

Any questions? Contact the team at eurocorr@gyro.no.

Open your phone camera over the QR code to visit the EUROCORR 2025 website

Call for EUROCORR 2025 abstracts and Working Party Sessions revealed alongside a Joint Session on Hydrogen in the Energy Transition

CALL FOR ABSTRACTS – SUBMIT NOW

The scientific programme for EUROCORR 2025 is currently under development, in close collaboration with the EFC and DECHEMA, and the local organising committee are excited to announce that the call for abstracts is now open.

This is your opportunity to present your research to a global audience and take part in valuable discussions with a broad range of corrosion experts. Abstracts in all areas of corrosion science and technology will be welcomed. Visit the EUROCORR website to learn more about the scheduled EFC Working Parties, Joint Sessions, and Workshops before submitting your abstract, and don't miss the chance to contribute to EUROCORR 2025's scientific success.

Click here to submit your abstract.

EUROCORR WORKING PARTY SESSIONS

→ Corrosion and Scale Inhibition (WP 1)
→ Corrosion by Hot Gases and Combustion Products (WP 3)
→ Nuclear Corrosion (WP 4)
→ Environment Sensitive Fracture (WP 5)
→ Corrosion Mechanisms, Methods and Modelling (WP 6 and WP 8)
→ Corrosion Education (WP 7)
→ Marine Corrosion (WP 9)
→ Microbial Corrosion (WP 10)
→ Corrosion of Steel in Concrete (WP 11)
→ Corrosion in Oil & Gas Production (WP 13)
→ Metallic Coatings (WP 14_1), Inorganic Coatings (WP 14_2), Organic Coatings (WP 14_3), Pretreatments (WP 14_4), and Self-Healing and Smart Coatings (WP 14_5)
→ Corrosion in Refining and Petrochemical Industries (WP 15)
→ Cathodic Protection (WP 16)
→ Automotive Corrosion (WP 17)
→ Tribocorrosion (WP 18)
→ Corrosion of Polymers and Advanced Materials (WP 19)
→ Corrosion in Water Systems (WP 20)
→ Corrosion of Archaeological and Historical Artefacts (WP 21)
→ Corrosion Control in Aerospace (WP 22)
→ Corrosion Reliability of Electronics (WP 23)
→ CO2-Corrosion in Industrial Applications (WP 24)
→ Atmospheric Corrosion (WP 25)
→ Corrosion in Green & Low Carbon Energy Technologies (WP 26)
→ Corrosion Prediction for Medical Implants and Devices (TF) Corrosion and Corrosion Protection of Additive Manufactured Metals (TF)

JOINT SESSIONS AND WORKSHOPS

→ JS 1: Microbial Corrosion and Biofouling Issues in Marine Environments (WP 9 and 10)
→ JS 2: Cathodic Protection in Marine Environments (WP 9 and 16)
→ JS 4: Cathodic Protection of Concrete Structures (WP 11 and WP 16)
→ JS 3: Multi-scale Modelling for Design of Protective Coatings (WP 6, 8, 14, 22, and VIPCOAT)
→ JS 5: Hydrogen in the Energy Transition (WP 5, 25, and 26)
→ JS 6: Corrosion Issues of Electric Vehicles and E-Mobility Systems (WP 17, 23, and 26)
→ JS 7: Corrosion and Corrosion Protection of Additive Manufactured Metals for Biomedical Applications (TF Med and AM)
→ JS 8: Polymers in Organic Coatings (WP 14 and 19)
→ JS 9: Polymer and Composite Materials in the Refining and Petrochemical Industries (WP 15 and 19)
→ WS 1: Corrosion Properties of Stainless Steel – an Engineering Perspective
→ WS 2: AI-Enhanced Corrosion Science – Unveiling Mechanisms, Innovative Materials Design and Advanced Protection Strategies

HYDROGEN IN THE ENERGY TRANSITION

Hydrogen is key for the large-scale distribution and storage of energy, thus playing a crucial role in the energy transition. The surplus of renewable electricity can be turned into H2 in electrolysers, transported, stored, and used for electricity production in fuel cells, for heating, and in combustion engines.

The challenge is to find suitable materials and ensure the safe operation in environments linked to hydrogen synthesis, transport, storage and application. These environments are not only corrosive but can induce entry of atomic hydrogen into the material.

The joint session on Hydrogen in the Energy Transition will foster cross-sectorial exchange between researchers and industry representatives on:

→ Selection and development of hydrogen-ready materials and their corrosion protection.
→ Mechanisms and material challenges of H2 formation & hydrogen-surface interactions.
→ Hydrogen entry from pressurised gas, water solutions, and other sources.
→ Corrosion-induced hydrogen entry into high-strength alloys for lightweight vehicles.
→ Existing and novel testing procedures.

All internal material-hydrogen interactions (trapping, crack nucleation, and growth mechanisms) will be addressed in the regular WP 5 – Environment Sensitive Fracture session.

Session organisers:

T. Prošek & J. Tidblad (WP 25 – Atmospheric Corrosion)
M. Wilms & G. Hinds (WP 26 – Corrosion in Green & Low Carbon Energy Technologies)
C. Blanc & D. Engelberg (WP 5 – Environment Sensitive Fracture)

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- Corrosion measurements in pipe (turbulent) flow conditions

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Record number of visitors to EUROCORR 2024 in Paris

Europe's largest corrosion conference attracted people from over 50 countries, who enjoyed a full scientific and social programme

There was a full social calendar at EUROCORR in Paris this year, including the traditional Welcome Reception, Exhibition Opening Cocktail, and a new Career Fair, as well as the Congress Dinner at the Maison de la Chimie (left)

EUROCORR 2024 in Paris attracted a record number of 1,244 participants from over 50 countries, who descended on the French capital to take part in Europe's leading event on corrosion.

Hosted by CEFRACOR from 1 to 5 September 2024, along with Chimie ParisTech, SFV, and DECHEMA, EUROCORR 2024 covered all areas of corrosion and corrosion protection, including new hot topics such as materials for green and renewable energies, challenges of hydrogen energy systems, and materials issues related to zero net emission.

EUROCORR once again proved key to creating links between academia and industry, bridging the gap between science and technology, going from fundamental research on corrosion mechanisms to knowledge transfer for applications to innovative technologies.

This year's theme was: *A step forward in societal awareness of material degradation issues.*

IN NUMBERS

The programme included four plenary lectures, one Young EFC plenary lecture, 13 keynote lectures, as well as 688 oral and 164 poster presentations in all the areas covered by the EFC Working Parties and Task Forces, with additional topical workshops. A new addition this year was the opportunity to present a short (five minute) lecture and 43 participants were able to present their work in this new format.

The exhibition, which included a total of 50 booths, was also a big success, where exhibitors were able to showcase the latest developments in corrosion research, corrosion resistant materials, corrosion monitoring, coatings, inhibitors, and cathodic protection.

SOCIAL EVENT

Last, but not least, the range of social events included the traditional Welcome Reception, the Exhibition Opening Cocktail, and the addition of a new Career Fair that was organised by the Young EFC.

To finish off the Social Programme, the Congress Dinner was held at the magnificent Maison de la Chimie (House of Chemistry), which is also home to the EFC Paris Office.

Philippe Marcus (left), Chair of EUROCORR 2024, and the organising team, would like to take the opportunity to thank all participants who contributed to making EUROCORR 2024 in Paris such a successful event.

EFC award winners presented with prizes at EUROCORR

EUROCORR provided the perfect setting to acknowledge the special contribution of the brightest and best within the EFC community

From top left: The new EFC Honorary Fellows take to the stage; Prof. François Ropital, (top,left) EFC President Tomáš Prošek presents the prize to Dr. Jörg A. Vogelsang (top, right), and Theo Hack (right). And Cavallaro Medal 2024 winner Prof. Mikhail Zheludkevich (above) with Prof. Federica Zanotto, a representative from University of Ferrara

Clockwise from top left: EFC Young Scientist Grant winners Amber Sykes (University of Leeds, UK), Nikola Macháčková (University of Chemistry and Technology Prague, CZ) with the Chair of the STAC Stefan Ritter, and Chair of the Young EFC Noémie Ott with Kateryna Popova (University of Chemistry and Technology Prague, CZ). Kurt Schwabe Prize winner, Dr Beatriz Mingo (The University of Manchester, UK) with Dr. Bálint Medgyes the representative of the Hungarian Corrosion Society (HUNKOR). EUROCORR poster prize winners Parisa Najmi (University of British Columbia, Canada) and Elena Messinese (Politecnico di Milano, Italy) with Stefan Ritter, and Ting Wang (Paul Scherrer Institute, Switzerland) next to Noémie Ott

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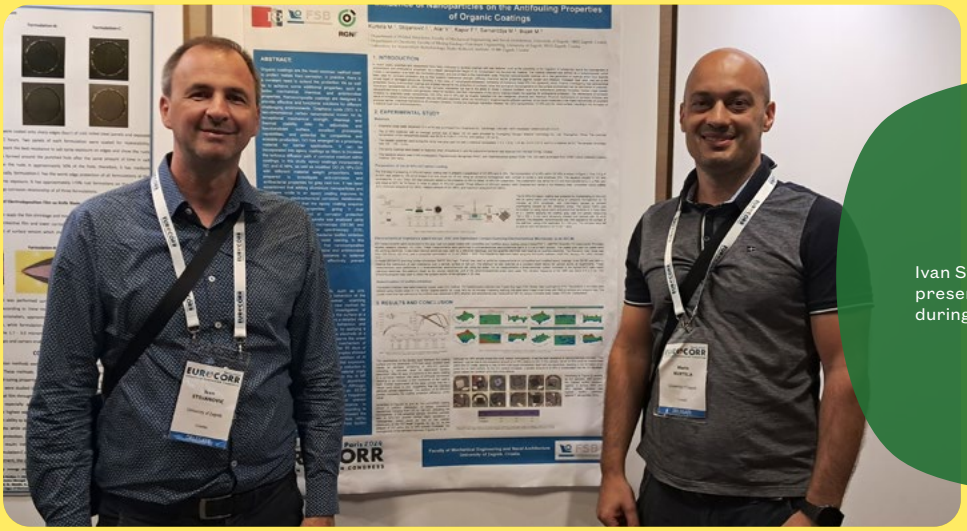
Clockwise from below: The WP 4 prizes for the Best Early-Career Presenter during the nuclear corrosion-related sessions at EUROCORR were presented to Romain Malacarne (CEA Saclay, France) and to Annesha Das (Paul Scherrer Institute, Switzerland). Hossein Amiriyarahmadi (Western University, Canada) received the prize for the best nuclear corrosion-related poster. Vincent Vangrunderbeek (VUB, Belgium) and Amber Sykes (University of Leeds, UK) are presented with their EUROCORR Best Oral Presentation prize by YEFC board member Bartlomiej Guzik (Mankiewicz, Germany)

Croatian Member Society take in Paris at EUROCORR

A delegation from Hrvatsko društvo za zaštitu materijala (HDZAMA), the Croatian Society for Materials Protection travelled to Paris

The Cortec Corporation booth (top) is always a Croatian meeting point at EUROCORR. From left: Sanja Martinez and Ivana Šoić (Faculty of Chemical Engineering and Technology and ReCorrTech), Ivana Lipoščak (Cortec Corporation), Krešimir Kekez (PA-EL), Ivana Radić Boršić (Cortec Corporation). PhD student, Anna Poropat (left), presents her research as part of her doctoral studies. And representatives of three EFC member societies enjoyed the fine French cuisine and wine at Chez Marthe. From left: Jan Stoulil, Association of Czech and Slovak Corrosion Engineers (AKI), Torfinn Havn, Norwegian Corrosion Society, and Ivan Stojanović, Croatian Society for Materials Protection



Ivan Stojanović (left) and Marin Kurtela present their study on organic coatings during the poster session in Paris

Happy faces after successful presentations (above). From left: Ivan Stojanović and Marin Kurtela (Faculty of Mechanical Engineering and Naval Architecture), Stjepan Pavliša, and Krešimir Kekez (PA-EL Company). And (right), every EUROCORR brings a new case study. Krešimir Kekez, an active member from PA-EL Company presents his paper on cathodic protection

Young EFC celebrate a decade of meetings at EUROCORR

The 10th Annual Meeting of the Young EFC attracted new participants after a networking event welcomed the young corrosionists to Paris

The Young EFC board presiding over the 10th Annual Meeting and Career Fair at EUROCORR in Paris, which this year attracted more than 100 early career corrosionists

ANNUAL MEETING AND CAREER FAIR

There was an impressive turnout at the 10th Annual Meeting of the Young EFC on the evening of 2 September at EUROCORR 2024, with more than 100 early career corrosionists in attendance. The Young EFC are grateful to Yolanda Hedberg (UWO, Canada) who introduced the CREATE CORRECT programme and to Danny Burkle who introduced the Institute of Corrosion and its activities..

The Annual Meetings have demonstrated strong engagement of young (or young at heart) professionals with an increasing number of participants each year. The get-together in the Foyer Bordeaux allowed young professionals to meet with representatives of leading companies, research institutes and higher education organisations in corrosion-related fields.

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With representatives on the boards of EFC and YEFC, they bring industry expertise and academic know-how together to shape a successful and sustainable future.

Are you curious how they can improve your process and boost your career? Click here to learn more.

MANKIEWICZ

From left: Yolanda Hedberg presenting the CREATE CORRECT programme, Danny Burkle (LBBC Baskerville, UK) introducing the Institute of Corrosion and its activities, and Bartlomiej Guzik (YEFC board member and Mankiewicz representative) and Mirsajjad Mousavi (YEFC board member) at the Mankiewicz booth during the career fair.

The YEFC plenary lecture on solutions to pitting and stress corrosion cracking leads discussion during a meeting of minds at EUROCORR

Emilio Martínez-Pañeda (right) delivering his plenary lecture entitled, *Towards a Virtual Corrosion Lab: a new generation of mechanistic, multi-physics models for pitting and stress corrosion cracking*

PLENARY LECTURE

Emilio Martínez-Pañeda (below), Associate Professor of Engineering Science at the University of Oxford (UK) was selected as Young EFC plenarist by a jury of YEFC board members and seven external jury members based on a three minute video presentation about his research.

His plenary lecture entitled, *Towards a Virtual Corrosion Lab: a new generation of mechanistic, multi-physics models for pitting and stress corrosion cracking* provided many insights into the use of phase field algorithms and multi-physics modelling to enable physics-based corrosion predictions.

MINGLING MINDS

EUROCORR 2024 also afforded participants the opportunity to mingle, collaborate, and begin organising events for the year ahead. Kick-off discussions regarding actions for #CorrosionAwarenessDay 2025 took place. EFC leaders and social media team connected with AMPP and World Corrosion Organization leaders (below) to join forces for the next corrosion around the clock.

NETWORKING EVENT

The EFC Summer School: Corrosion in Green Energy Technologies took place a few days before EUROCORR 2024 at the Institut Photovoltaïque d'Île-de-France (IPVF). On the Thursday evening before the conference participants enjoyed a wine and cheese tasting in the relaxed atmosphere of Le Julie's. YEFC would like to thank all participants.

From left to right: Amir Eliezer (AMPP), Gareth Hinds (World Corrosion Organization), Noémie Ott (Young EFC), Damien Féron (World Corrosion Organization), Andressa Trentin (EFC social media team)

Corrosionists from across Europe and around the world met in Paris to plan the year ahead and enjoy the social side of the event

From left to right: EFC jury members Stefan Ritter (Chair of STAC), Daniela Zander (Chair of WP 7), Elizabeth Szala (Chair of WP 17), Noémie Ott (Chair of the Young EFC), and Manel Rodriguez Ripoll (Chair of WP 18)

Clockwise from above: the record audience at the 10th Annual Meeting and Career Fair at EUROCORR in Paris, Young EFC with representatives from the University of Science and Technology Beijing (China), and young corrosionists making the most of the YEFC networking event during the EFC Summer School

The Young EFC competitions, grants, and webinars keeping young professionals up to speed with all the latest corrosion developments

GRANT WRITING WEBINAR

The Young EFC and CREATE CORRECT are pleased to announce a joint webinar on grant writing. Yolanda Hedberg (University of Western Ontario, Canada), Emilio Martínez-Pañeda (University of Oxford, UK), and Santiago J. Garcia (Delft University of Technology, Netherlands) will all share their experience in writing proposals and offer their tips and insights.The webinar will take place on Monday 20 January 2025 at 2pm (CET).

WE'RE THE YOUNG EFC

A pioneering initiative of the EFC since 2016, the Young EFC aims to empower and connect early career professionals in the corrosion and material protection domain. The YEFC is a thriving community for young and young-at-heart corrosion enthusiasts that arranges engaging events and provides a platform for advocacy. Click here to find out more.

3M PLENARY LECTURE COMPETITION

The Young EFC invites you to participate in the 3M Plenary Lecture Competition and have the chance to present your work during a plenary lecture at EUROCORR 2025 in Stavanger, Norway (from 7 to 11 September 2025). The call is now open and the closing date for applications is Monday 13 January 2025. Details about eligibility and the application process can be found here.

Key dates for your diary:
November 2024: registration opens
13 January 2025: applications are due
17 February 2025: the finalists are announced
10 March 2025: 3M video due
31 March 2025: finalist announced

INTRODUCING THE YOUNG EFC BOARD

The YEFC board consists of **Sajjad Akbarzadeh** (UMons, Belgium), **Arthur Boidot** (NOF Metal Coatings Europe SA, France), **Bartlomiej Guzik** (Mankiewicz Gebr. & Co, Poland), **Mirsajjad Mousavi** (Teijin Aramid BV, Netherlands), **Noémie Ott** (OST, Switzerland), **Can Özkan** (Delft University of Technology, Netherlands), and **Reynier Revilla** (VUB, Belgium)

We also welcome **Nikola Machácková** (VŠCHT Praha, Czech Republic), **Valentina Valbi** (Laboratoire de Recherche des Monuments Historiques, France), and **León Zendejas Medina** (KTH Royal Institute of Technology, Sweden)

The YEFC board would like to thank **Andressa Trentin** for her immense support in shaping the YEFC community over the past few years. She will continue to remain involved in the EFC social media team and EDI task force.

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EFC International Branch launched at EUROCORR24

The new initiative aims to attract corrosionists from across the world and increase the Federation's visibility to an international audience

The new EFC International Branch was launched at the EUROCORR congress in Paris to help people from the Middle East and Asia join the EFC community.

Hiroshi Kakinuma (pictured, right), Assistant Professor at the Tohoku University (Institute for Materials Research) in Sendaï, Japan has been appointed as the first Chair of the Branch, which will aim to make the Federation more attractive to a wider international audience by offering people the same benefits as members of member companies.

The new Branch will also help to provide greater visibility at an international level to the Federation by providing a wider network that will help to enrich interactions.

OPEN MEMBERSHIP

This membership is open to individuals interested in the EFC activities, operating in countries where the EFC does not currently have a local national Member Society. Full details of the EFC Member Societies can be found here on the EFC website.

People who live and operate in countries where the EFC is not represented through its European or International Member Societies are invited to become an EFC member through this Branch.

BRANCH BENEFITS

→ Participation in EFC Working Parties

→ Reduced registration fees for EUROCORR and EFC events, if applicable

→ Access to the restricted area of the EFC website containing the electronic proceedings of past EUROCORR conferences

→ Discounted prices for EFC publications, such as the EFC Green Books

If you would like to know more about the EFC International Branch and how to apply, then please contact the EFC COO Pascal Collet by sending an email to coo@efcweb.org.

Working Party 4 pay tribute to greatly admired member

Long-time WP 4 member, Renate Kilian, is remembered fondly for her great generosity, wisdom and compassion

It is with deep sadness that we announce the passing of Dr. Renate Kilian, a cherished colleague and friend at Framatome GmbH in Erlangen, Germany. Renate passed away peacefully on 7 August, leaving behind a remarkable legacy of professionalism, kindness and dedication that touched all who had the privilege to work with her.

Renate's career in the nuclear energy sector spanned many years, during which she held esteemed positions at Siemens KWU, which then became Areva, and finally Framatome GmbH. She was a long-standing and highly respected member of the WP 4 team. She brought an exceptional level of expertise and commitment to her work, making substantial contributions to projects that helped shape the industry. Known for her meticulous attention to detail and unwavering standards of excellence, Renate was both a role model and a pillar of strength within her team.

Beyond her technical skills, Renate was a source of encouragement and inspiration to her colleagues. She had a unique ability to offer wisdom, guidance and unwavering support, fostering a sense of unity and purpose within her team. Her compassion and generosity extended to everyone she encountered, as she was always ready with a kind word, a helpful hand, or a thoughtful solution to any challenge. Colleagues knew her as a brilliant professional but also as a caring mentor and friend, whose influence and kindness made an indelible impact on their lives.

Renate's passing leaves a profound void in the hearts of her family, friends and colleagues, but her legacy of integrity, compassion and dedication will live on in the many lives she touched. She will be deeply missed, but her memory will endure as an inspiration to all who knew her.

WP 4 session and WP business meeting EUROCORR 2024

A record-breaking WP 4 session in Paris covered a wide range of nuclear corrosion topics and celebrated this year's award winners

A record number of 61 nuclear corrosion-related talks along with 14 posters were presented in the nuclear corrosion session and joint session on molten salt corrosion at EUROCORR this year. Almost all nuclear corrosion topics were represented, including environmentally-assisted cracking, flow-accelerated corrosion, nuclear waste disposal, Gen-IV corrosion issues, and corrosion of fuel cladding materials.

Before the Fall Business Meeting of the WP 4 (on Wednesday), the Grande Médaille du CEFRACOR was awarded to Fanny Balbaud (right), head of the CEA Corrosion Service and Associated Professor at INSTN, by Philippe Marcus. The very well attended WP 4 meeting began by handing over the 2024 Honorary Medal of the WP 4 for outstanding contribution to corrosion science and engineering in the nuclear field to Dirk Engelberg (University of Manchester, UK) and continued by awarding the best nuclear corrosion poster. The prize for the best nuclear corrosion-related oral presentation was handed over during the closing ceremony of EUROCORR (click here for pictures), while past and future WP 4 activities and events were also discussed and planned. Next year's EUROCORR in Stavanger will also host a nuclear corrosion session, so don't forget to submit your abstract by January 2025.

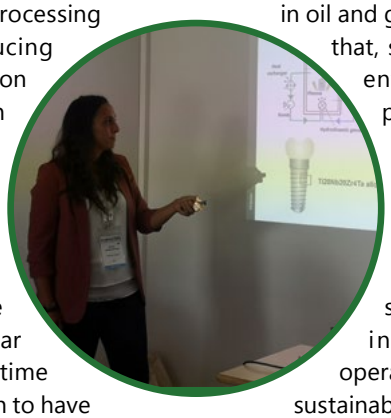
WP 18 on Tribocorrosion look to broaden their reach

The criteria for selecting tribocorrosion resistant materials and coatings were also discussed in the WP 18 EUROCORR meeting

Stefano Mischler, Head Tribology and Interface Chemistry Group at EPFL, discusses his presentation, *Elucidating the effect of surface films on the wear of steel in oil lubricated contacts through tribocorrosion concepts*

The WP 18 session at EUROCORR attracted an audience of around 25 to 30 delegates, bringing together academic and industrial professionals active in tribology and corrosion.

A total of nine oral contributions and two posters were presented covering tribocorrosion within sectors ranging from biomedical, to oil lubricants, food industry, and oil and gas. Covering a broad range of tribocorrosion topics, the contributions discussed tribocorrosion behaviour of materials, such as the stainless steel processing machines of cassava roots for producing cassava flour, or coatings for tribocorrosion protection of multicomponent alloys in dental implants and the evaluation of coatings for tribocorrosion protection in CO2 corrosive environments typically found in oil exploration.



One talk discussed using a tribocorrosion approach to describe the effect of oil additives on friction and wear of lubricated contacts. In all talks, the time was respected allowing for time enough to have dynamic and constructive discussion.

This was followed by a business meeting in which a number of challenges in tribocorrosion were identified. One of the main challenges addressed is the lack of adequate criteria and standards for selecting tribocorrosion resistant materials and coatings. The definition of a new tribocorrosion standard is a need that requires a devoted working group in order to succeed. In order to perform the initial steps, the definition of a good practice code within the EFC was considered to be a fast and suitable starting point.

Another goal of WP 18 is to broaden the tribocorrosion community, which is currently highly focused on the tribocorrosion of passive metals. Tribocorrosion includes a vast number of phenomena ranging from CO2 tribocorrosion in oil and gas to wear under hydrogen environment. To do that, synergies with the specific working parties are envisaged. The participants also agree on the preparation and submission for October 2024 of a COST Action focused on tribocorrosion.

The COST action ENTRISE (European Network for Tribocorrosion and Sustainable Energy) aims to establish a strong collaboration between corrosionists and tribologists, structural engineers, materials scientists and integrity managers (plant/infrastructure operators) in tribocorrosion research to achieve more sustainable, safe and reliable tribocorrosion management practices and infrastructure integrity maintenance.

The WP 18 will also endorse Tribocorrosion 2025, which will focus on wear in reactive environments from marine applications to hydrogen economy on the way towards decarbonisation, which will be held in Vienna from 21 to 23 October 2025. Click here for more information.

Full range of topics discussed by Working Party 7 in Paris

The transition from academic learning to the real-world, CORRECT insights, and lab courses offered a diversity of corrosion education

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The Palais des Congrès de Paris (left) hosted the EUROCORR and the Working Party 7 session on Corrosion Education, in which the importance of defining corrosion concepts for specialsed fields was emphasised

The Working Party 7 session on Corrosion Education during EUROCORR 2024 at the Palais des Congrès de Paris brought together innovative approaches to prepare future engineers for corrosion challenges across diverse industries.

Talks covered the transition from academic learning to real-world expectations, insights from the mentorship programme CORRECT, as well as hands-on laboratory courses that foster practical understanding.

Presentations also explored the importance of defining corrosion concepts for specialised fields, like the medical community, and discussed strategies to address climate-related challenges in corrosion education.

Attendees gained invaluable perspectives on effective teaching methodologies, with speakers from across the world and a range of different institutions. This diversity highlighted the global commitment to advancing corrosion science and engineering education.

Working Party 7 are already looking ahead to EUROCORR 2025 in Norway and welcome contributions, as they continue to help shape the future of corrosion and education.

GETTING TO KNOW THE WORKING PARTY 7 ON CORROSION EDUCATION

→ **CHAIR:** Prof. Dr.-Ing. Daniela ZANDER
(Gießerei-Institut, RWTH Aachen University)
→ **VICE-CHAIR:** Dr. Yaiza GONZALEZ GARCIA
(Delft University of Technology)

KNOWLEDGE EXCHANGE

The Working Party 7 on Corrosion Education is a dynamic hub that fosters knowledge exchange between industry and academia on critical corrosion-related topics.

Central to their mission is the focus on advancing educational development and addressing future societal challenges by preparing the next generation of corrosion scientists and engineers.

Through initiatives like the Corrosion Education Session at EUROCORR and co-organising the EUROCORR Summer School, WP 7 have created and provided a number of platforms for meaningful engagement and professional growth.

The Working Party also support the Young EFC community and initiatives, like the corrosion mentorship programme (CORRECT), which strengthens our worldwide network.

TRAINING CENTRES

Training at advanced levels can be obtained by working with a corrosion research group in one of several universities or in a specialised corrosion research centre. Click here and select the Previous Activities tab to find your nearest training centre.

Corrosion science's bright future and what that means for the EFC

EFC President Tomáš Prošek discusses the EFC Approved Courses, global corrosion challenges, and the contribution of member societies like IOM3

→ **Hello Tomáš. What are the main activities that the European Federation of Corrosion is engaged in?**

The EFC is a federation of member societies (MSs) active in corrosion protection in Europe and elsewhere. Our goal is to minimise corrosion losses by fostering collaboration between MSs and their members.

The key networking event of the EFC is the annual EUROCORR conference, which brings together around 1,200 corrosionists from academia and industry not only from Europe, but also from the USA, China, Japan, South Korea, the Middle East, Australia, and other regions. We do our best to make EUROCORR as interactive as possible during four full days of scientific and technical discussions, business exchanges, and social gatherings.

The success of EUROCORR would be impossible without the hard work of enthusiasts leading the EFC Working Parties (WPs). There are currently 24 WPs dealing with all important aspects and application areas of corrosion. Many of them organise courses, webinars, conferences, and meetings, publish EFC Green Books on different subjects, and run small collaborative projects financed by EFC. To help them stay in contact with the corrosion community throughout the year, EFC also has a strong media team active on LinkedIn.

Every second year, there is an EFC-CSCP conference held in China and a new industrially-oriented conference series is currently under preparation. Crucial for us is the support of early career corrosionists in the Young EFC. Since we believe that education is a key in supporting the EFC mission, we label courses of our members that meet high quality standards within the EFC Approved Course Label Scheme. We also advertise events of the MSs with EFC Event Numbers.

→ **In the interest of advancing the science of corrosion and raising awareness, what are some key steps that you take?**

We believe that bringing people together and supporting the open exchange of knowledge and information is the best way to help the field of corrosion protection. Enabling networking and learning from each other is behind all our actions, as is the conference organisation, publication activities, Young EFC events, social media posts, and others. In view of the corrosion advocacy, we actively support the World Corrosion Organization.

The WCO is recognised by the United Nations and it made great progress recently under the presidency of Gareth Hinds in finding ways how to pass the message that the sustainability goals are identical to corrosion protection ones. One of our goals is to raise the profile of corrosion among policy setters and decision makers within the European Commission and in countries in which our MSs are based.

Tomáš Prošek is a firm believer in the human touch. “It may sound old-fashioned” he explained “but personal contact, the ability to ask questions immediately, and the chance to discuss with each other, is the most efficient way of staying informed”

Several studies have shown that between 1/4 to 1/3 of corrosion losses can be avoided if only the already available knowledge is correctly applied. The fact that corrosion experts are often consulted only after a problem has appeared is well known to anybody involved within corrosion protection

→ Can you describe the skills and knowledge gap that exists in the corrosion sciences, and how training can help overcome this?

There are two aspects of this problem. First, we need to address the lack of awareness of the importance of corrosion science and corrosion protection in fields that are, or should be, the main "'customers' of corrosion experts.

We still see too many mistakes and lost opportunities leading to economic, environmental and health disasters caused by corrosion. Several studies have shown that between 1/4 to 1/3 of corrosion losses can be avoided if only the already available knowledge is correctly applied. The fact that corrosion experts are often consulted only after a problem has appeared is well known to anybody involved within corrosion protection.

The same applies for corrosion science. Research into mechanisms of corrosion degradation and advanced corrosion protection methods needs to be financed early enough to avoid losses. Therefore, we need to educate our colleagues in architecture, civil engineering, power generation, building, design, metallurgy, and cultural heritage, as well as many other fields. If they know what engineering solutions to implement and when to ask for help, the synergy is obvious. No deep knowledge is required here; it is more about reaching far.

Second, we need to stay up to date, to be aware of new findings and integrate them into our practices. For a researcher, the best way to keep in touch with the latest developments is to attend both general and specific corrosion conferences. It may sound old-fashioned, but personal contact, the ability to ask questions immediately, and the chance to discuss with each other, is the most efficient way of staying informed. It helps us identify our weak points and where we can then look for literature or specialised courses.

For corrosion protection practitioners, regular education is a must. Ideally, it should be embedded in a certification system.

→ What can be the contribution of member societies like IOM3, in partnership with EFC?

A good example can be the World Corrosion Awareness Day 2024, when EFC participated to an orchestrated social media operation when posts from actors based in almost all time zones were released hour by hour. EFC MSs including IOM3 helped to the immense success of the publicity campaign, which generated 800 million impressions in total. MSs also have the ability to bid to host EUROCORR, as IOM3 is doing in 2026. Each organizer gives the conference a unique flavour, which participants highly appreciate.

→ How do you foresee corrosion sciences developing in the near future, and do you recognise any potential opportunities and challenges?

I believe that corrosion sciences and protection fields have a bright future. The paradigm is slowly but surely changing, as society is not only requesting rapid and immediate solutions, but also sustainable ones. It is more and more important to consider the entire life cycle of products and beyond, including their recyclability. And you simply cannot do this without corrosion scientists and engineers.

We need to make sure that all design and material selection decisions are made with this perspective, which obviously means that there is going to be an increased demand for well-educated and trained corrosionists. For the moment, I do not think that tools of artificial intelligence (AI) will replace us any time soon. In fact, they can help us if they are cleverly integrated into the decision-making process; still, the role of experienced and educated individuals is indispensable.

There is a lot of work ahead us. We need to develop new complex materials with advanced properties and reduced environmental impact, make sure that they will survive long enough, and they are easily recyclable after the end of the use. Beside traditional tools such as laboratory and field tests, analytical equipment, journal and conference papers, and books, we are integrating AI tools, modelling, and big data analyses.

→ And lastly, tell us about the EFC Approved Course Label, why it was set up, and how it can benefit member societies?

The purpose of the EFC Approved Course Label is to support the education and training of corrosion professionals to limit the detrimental impacts of corrosion on assets, the environment, and health. The Label is granted to courses reviewed in detail and proposed by EFC MSs, who are responsible for the course content and delivery.

The course must focus on corrosion, corrosion prevention, or corrosion protection. The scheme was established to help MSs to advertise their educational activities widely and all the EFC community to have good access to high-quality training.

All EFC approved courses are listed on the EFC website. The label guarantees that a course or training scheme satisfies the EFC tight requirements on the course governance.

Click here for the full list of EFC Approved Courses.

Redefining electrochemical surface treatments

Led by CIDETEC Surface Engineering, RESINSURF aims to empower industry with the tools needed for a smooth Cr(VI)-free transition

The success of the RESINSURF project is driven by CIDETEC Surface Engineering and the commitment of partners from Spain, France and Portugal: INEOSURF, University of Aveiro, AIAS, TITANIA, Smallmatek, Chrome Dur Industriel and University of Pau

The European Commission has recently expanded the scope of the REACH restriction proposal for hexavalent chromium (Cr(VI)) substances. As of May 2024, ECHA has been mandated to include additional Cr(VI) substances in the restriction proposal, beyond those currently on the REACH Authorisation List. This reflects ongoing efforts to more comprehensively regulate Cr(VI) use across European industries. The significance of this shift is underscored by Cr(VI)'s critical role in leading industrial sectors like aerospace and automotive, as Cr(VI)-based surface treatments provide, along with others, superior corrosion resistance and durability. Among them, hard chromium and conversion coatings are most currently used, but can be found on a variety of process and products essential to ensure Europe´s industrial competitiveness (pigments, anodising, plating on plastics, steel protection). As industries adapt to these new regulations, finding effective alternatives that meet performance requirements poses a significant challenge, which remains unsolved.

In response, the RESINSURF project, co-funded by Interreg SUDOE, is spearheading the transition away from Cr(VI) in surface treatments across the SUDOE territory (encompassing regions of Spain, Portugal, and southern France). RESINSURF is developing two innovative Cr(VI)-free technical solutions, which will be rigorously validated by industry partners, ensuring their practical applicability in real-world manufacturing environments.

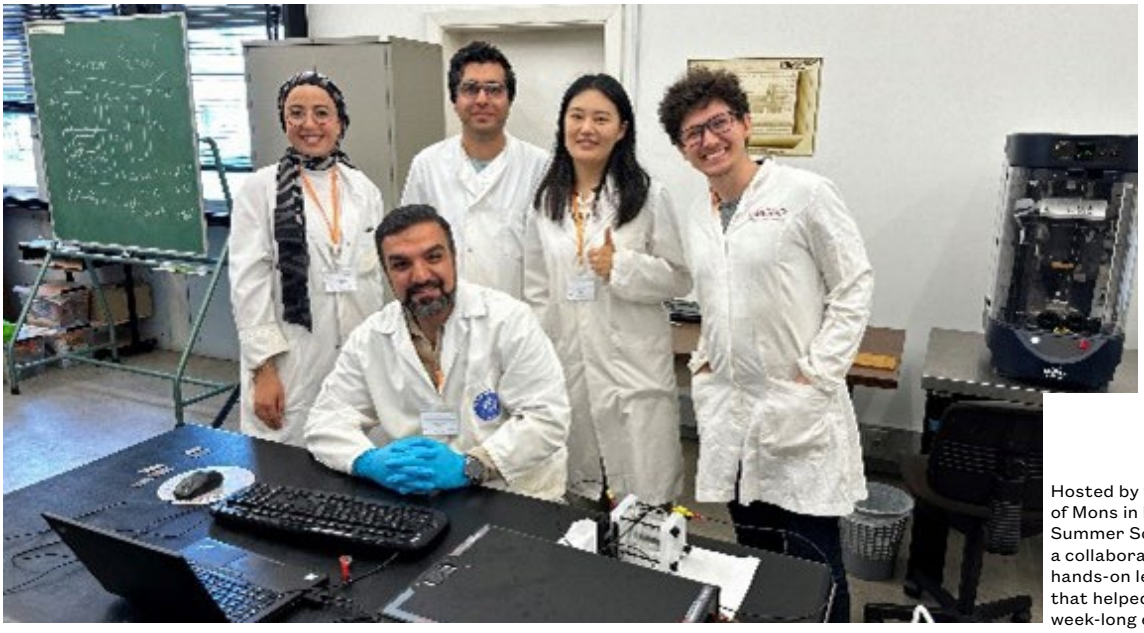
The first solution focuses on Cr(VI)-free hard chromium coatings, involving trivalent chromium coatings plated from organic (commercial) and inorganic (in-house formulated) electrolytes. The second targets Cr-free surface treatments and coatings for light alloys (aluminium), using a multi-stage process of specific anodisation and conversion layer pretreatments, followed by a lacquer-based treatment with incorporated corrosion inhibitors. RESINSURF is also developing analysis and monitoring systems for the working electrolytes, aiming to optimise coating processes, ensure consistent quality, and integrate the technologies into existing industrial workflows.

Recognising the complexity of integrating new methods into existing industrial practices, RESINSURF extends its focus beyond technical solutions to knowledge dissemination and capacity building through educational initiatives like workshops, training schools, open days, and webinars.

RESINSURF's development of Cr(VI)-free alternatives for these applications aims to help aerospace and automotive sectors overcome regulatory challenges while maintaining high performance standards. The involvement of industry partners in SUDOE countries ensures practical validation and promotes the technology's widespread adoption, addressing the needs of surface treatment industries and supporting the transition to Cr(VI)-free processes mandated by evolving European regulations. Click here for more information or here to contact Jaime Ochoa (Business Development Manager EU at CIDETEC Surface Engineering)

Summer School brings lectures and workshops to Belgium

Organised by WP14 and WP22, the Summer School on Multifunctional and Smart Coatings for Corrosion Protection proved to be a great success



Hosted by the University of Mons in Belgium, the Summer School fostered a collaborative spirit and a hands-on learning approach that helped to define the week-long event

Bringing together renowned professors, industry experts, and 15 PhD students from various countries, the EFC Summer School took place from 14 to 19 July 2024 at the University of Mons, Belgium. Supported by EFC, FNRS (Belgium), Elsevier, the University of Mons (UMONS) and its Materials Institute, the Summer School offered an enriching blend of theoretical lectures and practical workshops.

A blend of lectures by leading academics and practical sessions allowed participants to apply concepts they had learned in group projects. Key topics included corrosion mechanisms, smart coatings, electrochemical techniques, and more. The workshops were designed to reinforce theoretical knowledge with hands-on experience, covering corrosion on aluminium alloys, sol-gel and PEO coatings, and metallic deposits.

The program featured a lineup of professors who delivered lectures on various aspects of corrosion protection and smart coatings: Prof. M. Olivier (Corrosion Science), Prof. H. Terryn (Surface Analyses), Prof. J. Tedim (Smart Coatings for Corrosion Protection), Prof. M. Zheludkevich (Electrochemical Impedance Spectroscopy), Dr L. Bertolucci Coelho (Localised Electrochemical Techniques), Prof. M. Fedel (Conversion and Sol-Gel Layers), Prof. E. Matyklina (Anodizing and PEO Coatings), Prof. V. Vitry (Metallic Coatings), and Prof. D. Thiry (Plasma Vacuum Deposition).

A highlight of the event was provided by Dr Peter Visser (Akzo Nobel), whose plenary session offered invaluable insights into the application of smart coatings for corrosion protection. His presentation bridged the gap between academic research and industrial application, offering students a broader perspective on the impact of their work.

The practical sessions were a key component of the Summer School, with five groups working on different research topics under the guidance of experienced leaders. These workshops gave participants hands-on experience in coatings technologies and advanced techniques like Electrochemical Impedance Spectroscopy (EIS), Scanning Vibrating Electrode Technique (SVET), and X-ray Diffraction (XRD).

The Summer School also included several social events, with the gala dinner at the Van Der Valk Congres & Spa Hotel in Mons proving a particular highlight, as participants, professors, and industry experts networked in a relaxed and refined setting. A poster session on the final day allowed PhD students to present their research topics, fostering further discussion and collaboration, and the event concluded with an informal beer-tasting session.

The 2024 Summer School on Multifunctional and Smart Coatings for Corrosion Protection not only provided solid foundation in corrosion science and advanced coatings, but also facilitated meaningful connections between academia and industry. The blend of theoretical lectures, practical workshops, and social events created a well-rounded experience that will have a lasting impact on the participants' academic and professional careers.

APCE outline their mission and aims for the year ahead

A focus on the Association for Protection against Electrolytic Currents and their promotion of cathodic protection and corrosion control

Pictured at the General Meeting of Members, the EFC Italian Member Society, APCE, has in recent years focused on the possibility of a knowledge transfer from the gas sector to the water sector

The aims of APCE – Association for Protection against Electrolytic Currents (Associazione per la Protezione dalle Correnti Elettrolitiche) – are promotion, research, training, and spreading information in the field of cathodic protection and corrosion control and prevention.

In order to pursue these aims, the Association groups in its technical and didactical committees representatives of the government, other technical associations in the field of pipeline for distribution and transport of natural gas, water and oil, academic and research institutions, and technical services and solutions providers.

The training efforts started more than 20 years ago and, since the switch from EN 15257 to ISO 15257, have been devoted to facilitating the participation in training courses. There used to be a cathodic protection test field in Politecnico di Milano, but two new test fields have been completed, one in the north of Itay and the other in the centre, thanks to two companies associated to APCE. This gives students the possibility to practice on a real pipe, a real CP system and monitoring system, without the additional risks related to the transported fluid.

During the pandemic, a lot of energy was dedicated on technologies to avoid a complete paralysis of training. Realising devices that simulate real test posts has allowed the continuation of lab activities in the classrooms, even in a remote teaching mode.

Currently APCE offers a fixed course schedule, with sessions dedicated to on-land levels 1 to 4 and to the re-certification update of technical knowledge. Courses for the other application sectors (seawater, concrete and internal protection) as well as ad-hoc customised courses are offered on-demand.

TECHNICAL BODY

Starting from its many years of activity as a technical body in the cathodic protection of metallic gas pipes, commissioned by the Italian Energy Authority, APCE has in recent years focused on the possibility of a knowledge transfer from the gas sector to the water sector, in order to help solve a huge water leakage issue on the Italian market, as more than 35% of the water captured at the source is dispersed.

To this aim, APCE representatives regularly participate in conferences and exhibitions, organise round tables and workshops, develop guidelines, and collect and share information about best practices. Part of the free publishing effort has also been devoted to sharing knowledge and know-how. But the best part of the Associative life is the possibility of a continuous dialogue among operators, to solve common problems and share field experiences.

APCE is also engaged in national and international standardisation activities, channelling the experience of Italian operators in preventing corrosion to working groups and technical committees.

Click here to find out more.

AIM hold 40th National Conference and look ahead with GN CORR 2025

The Italian Association for Metallurgy welcomed nearly 300 participants to their 40th National Conference in Naples

Some of the 300 participants at AIM's 40th National Conference in Naples this September taking in one of the four sessions that will be published after peer-review on La Metallurgia Italiana

AIM organised the Association's 40th National Conference from 11 to 13 September 2024 in Naples, which included two sessions on corrosion and another two focused on coatings.

The conference proved to be a great success for the Italian Association for Metallurgy, with almost 300 attendees and a range of sponsors. A selection of the best papers will be published after peer-review on La Metallurgia Italiana – The International Journal of the Italian Association for Metallurgy.

NATIONAL DAYS

AIM, APCE, and the AMPP Italy Chapter, in co-operation with Polytechnic University of Marche, will also host the 16th edition of the National Days on Corrosion and Protection (GN CORR 2025) in Ancona from 25 to 27 June 2025.

Held at the Faculty of Engineering of the Polytechnic University of Marche, the National Days on Corrosion and Protection is the most important national event in Italy dedicated to corrosion and protection of materials. The conference will include discussion and debate on scientific, technological and production issues in the field of corrosion and protection of materials.

In particular, the event includes presentations of the results achieved by various research groups and several companies operating in the field, through a range of oral and poster presentations.

GN CORR 2025 will focus on a range of topic, including:

→ Corrosion of metal structures exposed to the atmosphere
→ Corrosion and protection of underground water networks
→ Corrosion in industrial plants
→ Cathodic protection: design, testing, management and monitoring
→ Corrosion behaviour of titanium, nickel and stainless steel alloys
→ Corrosion of reinforced concrete structures
→ Corrosion of cultural heritage
→ Corrosion in oil and gas plants
→ Degradation and release of metallic biomaterials
→ Coatings and surface treatments
- Corrosion inhibitors
→ The impact of new manufacturing technologies on corrosion
→ Techniques for studying and monitoring corrosion
→ Mechanisms of corrosion
→ Case histories

Chaired by Prof. Tiziano Bellezze of Polytechnic University of Marche, the conference is supported by a number of corrosion related associations and will include an area for exhibitors.

Within GN CORR 2025, AIM plans to announce a prize in memory of Prof. Cecilia Monticelli, reserved to PhD students or Post Doc scholarship holders.

Click here for the call for papers and more information.

ACA announce the retun of Corrosion & Materials journal

The October 2024 edition from the Australasian Corrosion Association focuses on VOC coatings, Digital Twin technology, and cathodic protection

The Australasian Corrosion Association (ACA) has announced the return of Corrosion & Materials with the October 2024 edition. The new issue is filled with critical insights, breaking news, and cutting-edge research.

Providing an essential resource for corrosion professionals, the October edition from the EFC Australian Member Society delves into key industry topics, including:

→ Advances in low VOC coatings
→ Digital Twin technology that's revolutionising pipeline corrosion management
→ Innovative solutions for cathodic protection systems

CONNECTING CORROSIONISTS

Published four times per year, the Corrosion & Materials journal connects professionals across a diverse range of industries, delivering a wealth of information to help corrosionists stay informed and competitive within the field.

From 2025 onward, the journal has issues scheduled for publication in January, April, July, and October.

The Corrosion & Materials journal is included with ACA membership. However, non-members can also purchase individual copies or take advantage of bulk offers.

The October 2024 edition is available for A$25 (inc. GST). Alternatively, bulk buy all 2024 editions (April, July, October) for A$50 (inc. GST), or purchase all four 2025 editions for A$75 (inc. GST).

So, whether you are an industry veteran or new to the field, the Corrosion & Materials journal provides a perfect opportunity to access cutting-edge research and expert analysis.

Don't miss the October edition of Corrosion & Materials and discover more from ACA on the latest trends and innovations in corrosion management.

Click here to find out more. To subscribe, contact ACA by phone on (+61) 3 8608 7900, or alternatively send a mail to aca@corrosion.com.au.

Investigating zinc alloy coatings behaviour in soils

EFC Member Society, RISE, Research Institutes of Sweden, has been exploring zinc alloy coatings behaviour in soils across the world

Different types of soil, like sandy-loam soil-EU (far left), clay soil-EU (left), and sandy-Asia (below) provide different challenges when it comes to corrosion processes according to EFC Member Society, RISE

Soil is a complex environment where corrosion processes are known to be complicated, slower compared to aqueous conductive media, and lead to different possible attack forms. Depending on the aim, the corrosion community is dealing with the research area in different ways, including short-term testing, field exposures, laboratory studies in soil simulating solutions, and multi-physics modelling.

From a field data generation perspective, the pioneering works of Romanoff in the 1950s remain a reference database to get an idea on the behaviour of different materials in different soils. Following the same approach, the Swedish Corrosion Institute (now part of RISE, an EFC Member Society), has conducted a 40 year exposure campaign since the 1980s throughout Sweden in different soil conditions. Among the studied materials, galvanised steel attracted the interest of end-users due to its relative corrosion resistance when compared to the carbon steel. In the meantime, the galvanisation market moved from pure zinc to zinc alloy coatings, where both coating formulation and microstructure are of concern for durable structures.

The behaviour and performance of several recent zinc alloy coatings products established in the market is a mutual concern for manufacturers and structures owners.

From a research perspective, this area has different complementary and interactive axes including field exposure, laboratory testing together with related testing methods development, and modelling (for mechanistic and lifetime prediction purposes).

PRODUCT KNOWLEDGE

RISE continue to support industrials to enhance their knowledge about their products in different available testing possibilities, gathering both local and worldwide field exposure sites as well as laboratory-controlled testing conditions. The work is organised in flexible and customised way for interested additional partners. RISE field testing facilities cover all kind of soils that buried infrastructure can face across the world. The consideration of soil parameters monitoring together with materials performance is an added value for better understanding of the processes.

Part of the challenges that may face this research area were discussed in the context of solar parks durability during the 1st International Symposium on Solar Structures Durability, which was supported jointly by RISE, French corrosion institute and CINSA association in Parma, Italy (EFC event No. 516). For further information, contact Dr. Abdelkader Meroufel (abdelkader.meroufel@ri.se).

EFC announce partnership with MECOC 2025 in UAE

The major international event in January will host three conferences on Corrosion and Coatings, Future Steel, and Non-metallic Materials

Wikimedia Commons

The Conrad Abu Dhabi Etihad Towers in the UAE will host MECOC 2025 in January next year, with one of three conferences entirely dedicated to corrosion and coatings

The EFC is pleased to announce a partnership with the 4th annual Middle East Metallurgy Corrosion and Expo (MECOC EXPO 2025) taking place from 14 to 16 January 2025.

The major event at the Conrad Abu Dhabi Etihad Towers in the UAE will combine conference and expo by gathering key decision makers and experts in the oil and gas industry together from the GCC and beyond, to discuss corrosion and protective coatings, along with a range of other topics.

THREE CONFERENCES

MECOC will host one event and three conferences, with one being fully dedicated to Corrosion and Coatings that will dive deep into corrosion prevention, management, coating technologies, and cathodic protection. Topics include:

→ Corrosion Prevention Solutions, Corrosion Management Solutions, Corrosion Inhibitors
→ Cathodic Protection
→ Insulation
→ Surface Treatment/ Protection Corrosion Monitoring
→ Metallic Coatings
→ Inorganic Coatings Pretreatments
→ Self-healing Coatings
→ Surface Modification Technologies Nanostructured Corrosion Sensing Coatings

Two other two conferences will focus on *Future Steel* and *Non-metallic Materials*, which will run in parallel to the Corrosion and Coatings conference.

MECOC EXPO 2025 will feature over 60 esteemed speakers from industry leaders and will bring opportunities to network with over 500 industry peers, decision-makers and potential partners. The conferences, lectures, and exhibition area will also provide a platform for Innovative Solutions Showcase.

As a supporting partner, the EFC will contribute by presenting its activities, especially those of the Working Parties, at the EFC stand.

Click here for more information about the event from the official website MECOC 2025 and to secure your spot.

Stay up to date with EFC events 2024-2027

Make a date in your corrosion calendar for all the latest EFC events and conferences from around the world

Wikimedia Commons

TRAINING LECTURES ON ADVANCED CORROSION ANALYSES

NOVA University Lisbon, hybrid event, 23 January 2025

EFC Event No. 524

Organised by VUB, member of VOM-EFC member society, Belgium, with Iris De Graeve and Reynier Revilla as Chairs of the EFC Task Force on Corrosion and Corrosion Protection of Additive Manufactured Metals

Scope: This one-day training is organised in the frame of the VUB coordinated (Vrije Universiteit Brussel) Marie Curie Doctoral Network DurAMat on additive manufacturing of metals, in and with support of the EFC Task Force on Corrosion and Corrosion Protection of Additive Manufactured Metals. It is a hybrid event where all interested PhD, postdoctoral researchers and young professionals from industry are welcome to the online lectures. In the programme, there are lectures on the fundamentals of metal surface analyses and local electrochemical analyses, and specific lectures dedicated to corrosion inhibitors, modelling of diffusion in coatings and the highly advanced method of impedance spectroscopy. Website to be announced soon on the DurAMat website and LinkedIn. Contact: reynier.revilla@vub.be

INTENSIVE COURSE ON CORROSION AND SCALE-INHIBITION

Iserlohn, Germany, 18-20 February 2025

EFC Event No. 519

Organised by EFC WP1 Corrosion and Scale Inhibition.

Scope: The course summarises the present-day knowledge in theory, testing and application of corrosion and scale inhibitors. The emphasis is on application in selected technical fields and discussion of environmental aspects. One focus is on explaining basic principles of registration of inhibitor chemicals within the European REACH regulation (Registration, Evaluation, Authorisation and Restriction of Chemicals). Questions will be discussed which chemicals will remain in the list of environmentally accepted substances and what strategies are available to select alternatives for presently still needed, however, environmentally less-friendly inhibitor compounds. Click here for more information or contact: office@infinkor.de.

PractiCORR 2025

Warsaw, Poland, 10-13 June 2025

EFC Event No. 523

The international conference on practical aspects of corrosion protection and coating solutions is organised by the PSK Polish Corrosion Society PSK.

Sessions: Surface preparation; Organic and inorganic coatings; Metal coatings; Powder coatings; Fire protection coatings; Anti-corrosion protection in urban, road and railway infrastructure; Anti-corrosion protection in the energy sector; Anti-corrosion protection in the petrochemical industry; Anti-corrosion protection for offshore structures; Anti-corrosion protection in the automotive industry; Inspection; Standards, regulations

and requirements in various countries; Anti-corrosion equipment; Corrosion problems in practice; Business & Science.
The call for papers is open. Abstract submission deadline is 15 January 2025. Click here for more information.

14TH ELECTROCHEMICAL METHODS IN CORROSION RESEARCH (EMCR 2025)

San Servolo island, Venice, Italy, 15-19 June 2025
EFC Event No. 522
Organised in cooperation with EFC Member Society AIM.
The EMCR symposia are well-established conferences in the field of electrochemistry, electrochemical methods and corrosion research. These have been included in the past as EFC numbered events in the EFC calendar (EMCR 2018, EFC event no. 418; EMCR 2015, EFC event no. 386; EMCR 2006, EFC event no. 295; EMCR 2003, EFC event no. 263). The conference programme includes three plenary lectures, 60 oral presentations, a poster session and an exhibition.
Scope: To discuss the latest developments in the application of electrochemical methods in corrosion studies. The programme of the 14th EMCR symposium will include the use of traditional and local techniques in corrosion studies, coupling between electrochemical techniques and non-electrochemical methods, modelling and investigation of corrosion mechanisms.
The call for papers is open. Abstract submission deadline is 17 January 2025. Click here for more information.

EUROCORR 2025

Stavanger, Norway, 7-11 September 2025
EFC Event No. 520
EFC's annual EUROCORR conference in 2025.
Scope: The programme will include plenary lectures, keynote lectures oral and poster presentations in all areas covered by EFC Working Parties and Task Forces, and other hot topics.
Click here for more information.

TRIBOCORROSION 2025

Vienna, Austria, 21-23 October 2025
EFC Event No. 521
Organised by the Austrian EFC Member Society ASMET; initiative proposed by EFC Working Party 18.
Scope: International conference on the topic of tribocorrosion. Tribocorrosion 2025 is aimed to bring together scientists and engineers working in academia or in industry interested in getting better understanding and control of the mechanical and chemical interactions governing friction, wear and lubrication in contacts operating in extreme environments (i.e. marine, presence of hydrogen, CO , new fuels or green lubricants). Prior to the conference, a specialisation course will be offered targeting postgraduate students.
The call for papers is open. Abstract submission deadline is 24 January 2025. Click here for more information.

9TH INTERNATIONAL WORKSHOP ON LONG-TERM PREDICTION OF CORROSION DAMAGE IN NUCLEAR WASTE SYSTEMS (LTC 2025)

Sendai, Tohoku Region, Japan, 4-6 November 2025
EFC Event No. 501
Japan Society of Corrosion Engineering (JSCE), Nuclear Waste Management Organization of Japan (NUMO) and EFC WP 4 on Nuclear Corrosion
Scope: Overview on national disposal programmes with emphasis on similarities, common challenges and different approaches, regulatory issues, retrievability, etc. Development of and long-term performance assessment of high-level waste disposal containers. Experimentation with candidate materials, including laboratory tests, full-scale demonstration, in-situ testing, methodology, modelling, monitoring and design.

EUROCORR 2026

Dublin, Ireland, 6-10 September 2026
EFC Event No. 510

EUROCORR 2027

Prague, Czech Republic, 12-16 September 2027
EFC Event No. TBC

EFC Approved Courses 2025

Attributed to courses from Member Societies with high professional standards, the EFC Approved Courses support the education and training of corrosion professionals across Europe

EFC APPROVED COURSES 2025

Online, 25 February 2025
Course: Introduction to Corrosion & Its Prevention - Focusing on the fundamentals of corrosion and how it can be prevented

Click here for a full overview of all the current EFC Approved Courses.

Click here for further course information and the complete listings future corrosion events held across Europe and the world. The purpose of EFC Approved Courses is to support the education and training of corrosion professionals in limiting the detrimental impacts of corrosion on assets, the environment, and health.

The EFC supports its Member Societies in corrosion education by granting the EFC Approved Course Label to courses with high professional standards.

Approval is granted to courses reviewed in detail and proposed by European Member Societies of the EFC, or European developed courses supported by the responsible European Member Societies.

LEGAL NOTICE
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