



DECEMBER 2022

efcweb.org

REFLECTING ON A PRESIDENCY DURING CHALLENGING TIMES

Dear corrosionists,

For the past two years I have had the honor and pleasure of serving as President of the EFC.

During the first year of my presidency, Covid played a central role, culminating in the decision to hold EUROCORR 2021 again in a virtual format. This was not an easy step, but our Hungarian partners, together with Eufed GmbH and Diamond Congress Ltd did an excellent job, making the second virtual EUROCORR very successful.

We introduced the EFC hub to the scientists and members of EFC. This hub provides a smooth and smart platform for collaboration and exchange, so please have a look at efc.solved.fi. It's a service free of charge and more than 300 experts are already registered. For more detailed information please have a look at the bottom on the page of www.efcweb.org.

The second year was covered by Russia's extremely brutal and absolutely unjustified war of aggression against Ukraine. EFC had to react and therefore suspended the two



Russian memberships. The Corrosion Society of Ukraine became a new official member of EFC. However, the year had one bright spot to offer with the in-person return of EUROCORR 2022 in Berlin, which was perfectly organized and all visitors were full of praise. Many thanks and compliments to the two organizers DECHEMA e.V. and GfKORR e.V. in the name of EFC and its participating scientists!

My term is now coming to an end and Tomáš Prošek will take over. I wish him much success in his tasks in a hopefully more peaceful world.

I would like to express my sincere thanks to the leadership team, who have actively supported me very much. I am convinced that with

the new leadership, the European Federation of Corrosion will be successful in achieving its goals of a sustainable, organizationally optimized, and financially sound future as the globally leading scientific corrosion community.

All the best and stay tuned,
Jörg Vogelsang,
EFC PRESIDENT

A NOTE FROM THE EDITOR

With the festive break nearly upon us and the New Year just around the corner, it's an opportune time to reflect on the positives of the past 12 months and look forward to all that's ahead.

And, in the December issue of the EFC Newsletter, that's just what we've done. Inside there's news from the Young EFC's many activities and a new task force on corrosion of medical implants

and devices, while we also look ahead with three interviews from your new EFC President, VP, and STAC Chair, as well as a preview of EUROCORR 2023 and all the latest dates to keep in your corrosion calendar.

"The future's bright for the EFC," according to Gareth Hinds on page 5 and it's hard to disagree.
Dan Mobbs, London
EDITOR

INSIDE YOUR LATEST EFC NEWSLETTER

[EUROCORR 2023 - ALL YOU NEED TO KNOW](#)

The abstract submission deadline of Monday 16 January has been set

[CATCH UP WITH THE PROACTIVE YOUNG EFC](#)

Lectures, webinars and more from the young corrosionists

[CHANGING OF THE GUARD AT EFC](#)

The new President, VP, and STAC Chair outline a vision of the future for EFC

[NEWLY ELECTED MEMBERS JOIN BoA](#)

Introducing the fresh faces next three-year term of office

[CORROSION SUMMER SCHOOL RETURNS](#)

Two lucky students will this year be sponsored by EFC at the third edition of the school

[NEW TASK FORCE](#)

It will focus on corrosion of medical implants and devices

[EFC EVENTS](#)

Make a date in your corrosion calendar for future EFC events

[CHRISTMAS WISHES](#)

Merry Christmas and a happy New Year from the EFC team

JANUARY CALL FOR EUROCORR 2023 PAPERS

EUROCORR 2023 IN BRUSSELS WILL FOCUS ON THE NEW GENERATION OF CORROSION ENGINEERS

Organisers, VOM asbl in collaboration with the University of Mons (UMONS), the Vrije Universiteit Brussel (VUB), Materia Nova, and DECHEMA are pleased to invite you to EUROCORR 2023 in Brussels, Belgium from 27th to 31st August 2023.

Under the motto *Closing the gap between industry and academia in corrosion science and prediction*, the congress will aim at reducing the gap between the academic world and industry, especially in the field of corrosion prediction by advanced measuring, modeling, and monitoring.

With more than 800 delegates expected to attend, the congress aims at providing opportunities to create contacts from all countries, to facilitate the networking and to exchange knowledge and latest findings between scientists, academics, researchers, students, and industry related to corrosion.

Uniquely in 2023, EUROCORR will focus on the new generation of corrosion engineers.

CONFERENCE PROGRAMME

The conference programme will include plenary meetings, keynote lectures, oral and poster presentations, which will be supported by the various EFC Working Parties, along with specific workshops.

In addition to the traditional Working Party topics, the following joint sessions (JS) and workshops (WS) are planned to be organised:

- WS: Corrosion and Corrosion Protection of Additive Manufactured Metals
- WS: Corrosion and Corrosion protection of additive Manufactured Metals for biomedical applications
- WS: Corrosion in the Chemical Process Industry
- JS: Coatings for High Temperatures (WP3+WP14)
- JS: Environmentally-assisted crack initiation (WP4+WP5+WP22)
- JS: Hydrogen and metallic materials (WP5+WP17+WP22+WP25+TF+WCO)
- JS: Corrosion Sensing, Monitoring and Prediction (WP6+WP8+WP25)
- JS: Microbial Corrosion in Marine Environments (WP9+WP10)
- JS: Cathodic Protection in Marine Environment (WP9+WP16)
- JS: Ancient metals in marine environments: corrosion mechanisms and protective treatments (WP9+WP21)
- JS: Bio-organisms and ancient metallic artefacts: corrosive or bioprotective? (WP10+WP21)
- JS: Cathodic Protection of Steel in Concrete (WP11+WP16)

Driving corrosion prediction and protection towards a circular economy

EUROCORR
AUGUST 27-31, 2023 BELGIUM BRUSSELS

11th ANNUAL CONGRESS OF THE EUROPEAN FEDERATION OF CORROSION

WWW.EUROCORR2023.ORG

The 2023 EUROCORR conference in Brussels will focus on the new generation of corrosion engineers through plenary meetings, keynote lectures, oral and poster presentations

- JS: Polymers in Organic Coatings (WP14+WP19)
 - JS: Corrosion in Green and Low Carbon Energy Technologies: Corrosion in the transformation technologies of biomass and waste oils to biofuels and bioproduct (WP15+TF)
 - JS: Corrosion issues of electric vehicles and e-mobility systems (WP17+WP23)
 - JS: Multi-scale modelling for design of protective coatings (WP6+WP8+WP14+WP22+WP25)
 - JS: Low Carbon and Green Energy on CO₂-Corrosion in Underground Facilities (WP13+WP24+TF)
- To find out more information, [click here](#).

EXHIBITION AND PARTNERSHIP

If you wish to become a partner by choosing one of our partnership packages or other partnership opportunities, and exhibit at EUROCORR 2023, then please visit the [PARTNERSHIP PROSPECTUS](#).

If you are interested in an exhibition booth only, we would like to invite you to visit our EUROCORR 2023 online [EXHIBITION BOOKING SYSTEM](#), where you can book your exhibition booth, which is equipped with a shell scheme.

Your involvement at EUROCORR 2023 or contribution would be greatly appreciated and can be tailored according to your business needs.

We are looking forward to your contribution and participation at EUROCORR 2023.

CONTACT

CONGRESS SECRETARIAT:

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CONTACT EXHIBITION:

Ms. Pavla Křištofová
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CONGRESS WEBSITE:

EUROCORR2023.ORG

The call for papers is now open and the abstract submission deadline is: **MONDAY 16 JANUARY 2023**

YOUR EUROCORR 2023 HOSTS



VOM
BEYOND TREATMENT OF SURFACES



MATERIA NOVA
Materials R&D Center



UMONS



DECHEMA

FEBRUARY DEADLINE FOR EUROCORR TRAVEL GRANT APPROACHES

The EUROCORR Travel Grant will return for 2023 as the EFC invites submissions ahead of the 15 February deadline.

The Grant provides financial support to help young corrosionists to facilitate their participation in the EUROCORR conference.

It is intended for students from countries or organisations where they encounter difficulties to travel to the venue of EUROCORR because of financial constraints.

Based on submitted proposals the Grant selection will be presented at the EUROCORR 2023 conference in Brussels, as well as on the EFC website.

The submission deadline is Wednesday 15 February 2023. To find out more, visit the [EFC Grant webpage here](#).

EFC YOUNG SCIENTIST GRANT WILL RETURN AT EUROCORR 2023

EFC is pleased to call for applications for its prestigious Young Scientist Grant, which will be presented during EUROCORR 2023.

The grant will provide financial support to junior corrosionists to enable them to visit and interact with other corrosionists at their respective institutes, and to discuss research issues of mutual concern in the field.

To enter the competition, two applicants submit a proposal, focused on the research area or issue they want to discuss bilaterally at the home institute of one of the partners, using the Application Form. The deadline for submission of applications is Wednesday 15 February 2023. To find out more information, visit the [EFC webpage here](#).

YOUNG EFC NEWS UPDATE



FROM PLENARY LECTURES, TO THE WEBINAR ELSEVIER SERIES, CORROSION FIGHTERS, WOMEN IN SCIENCE, AND CAREERS WEBINARS, THE YEFC IS AS PROACTIVE AS EVER



E. Fischer / Institute of Polymers Studies (IPST)

APPLICATIONS FOR YEFC 3M PLENARY LECTURE COMPETITION CLOSE ON THURSDAY 5 JANUARY

Would you like the opportunity to present your research during a plenary lecture at EUROCORR 2023? If you think you're up to the challenge, then join the Young EFC 3M Plenary Lecture Competition ahead of the application deadline on Thursday 5 January 2023.

WHY PARTICIPATE?

- Develop your academic, presentation, and research communication skills
- Develop your ability to effectively explain your research in language appropriate to a general audience
- Celebrate your research, connect with your peers, and raise your public profile
- Have the opportunity to give a plenary lecture at EUROCORR 2023

APPLICATION (FIRST ROUND)

- One minute video (free format) to apply and introduce yourself
- CV and list of publications
- Motivation letter

SECOND ROUND FOR SELECTED MEMBERS

- Challenge yourself and present your research in three minutes

ELIGIBILITY

- Contestants must have less than eight years of professional experience after completing their doctorate upon submission. Other candidates may also be considered if there are extraordinary grounds for doing so. Extraordinary grounds refers to illness, prenatal leave, or similar circumstances
- Contestants must hold a PhD related to corrosion
- The winner must register and also attend EUROCORR 2023 in Brussels
- The video/CV will be made available for use on social media

KEY DATES

- 5 January:** Applications due
- 20 January:** Finalists announced
- 27 February:** 3M video due

INDUSTRIAL FOCUS FOR NEW CAREER WEBINAR

After two webinars dedicated to academic pathways, the Online EFC Career Webinar will turn towards industrial career pathways for the next webinars. Providing an overview about the diversity of careers within the corrosion community the online webinars help to demystify some career pathways.

And in January, the webinar series will welcome Elizabeth Szala, Senior Expert Engineer and Coordinator of the R&D Laboratory at Aluminium Duffel BV and current chair of the EFC Working Party 17 on Automotive Corrosion. More information is available on [LinkedIn](#) or by becoming a YEFC member. All recordings are available on the [YEFC website](#) and on the [YEFC YouTube channel](#).

WEBINAR SCIENTIFIC WRITING TO CONTINUE

The webinar series for Scientific Writing, organised by Young EFC and Elsevier, is set to continue following the success of the last webinar on 26 October in which the audience was guided through the review process of a manuscript.

Young EFC is very grateful to the editors of Corrosion Science: Prof. Arjan Mol and Prof. Dawei Zhang for the support that they have given to this initiative, and for sharing their knowledge and experience.

Did you miss the webinar on how to review a paper? No worries. All the presentations are available for the Young EFC members upon request. Just send us an email at youngcorrosion@gmail.com.

It has been announced that the YEFC will launch the third edition of **WOMEN IN CORROSION** programme called **YOU CANNOT BE WHAT YOU CANNOT SEE** in 2023 to celebrate women working in corrosion and in general, in STEM-related fields. Stay tuned on LinkedIn or become a YEFC members for more information about the initiative.

YEFC JOINS CORROSION AWARENESS DAY

The World Corrosion Organization (WCO) has designated 24 April as World Corrosion Awareness Day and the YEFC is encouraging young corrosionists to join our fourth edition and help organise a range of activities, including photo competitions, lectures, workshops, and visits to spread awareness of corrosion in our societies and industries.

Last year, more than 21 activities were registered by researchers, students, academics, and industrials from 19 countries, including India, Iraq, Spain, Switzerland, United Kingdom, United States, France, Netherlands, Poland, Canada, Pakistan, Slovakia, Hungary, Bangladesh, Germany, Portugal, Romania, Sweden, Belgium, and Qatar. More information about the 2023 edition will be announced at the beginning of next year. In the meantime, stay tuned on [LinkedIn](#) or become a YEFC member.

CORROSION FIGHTERS AND MENTIMETER

The Corrosion Fighters series of short interviews aims to provide more visibility to the winners of EFC awards and attract young researchers and engineers in the field of corrosion, while also encouraging young people to apply for EFC prizes.

Stay tuned on LinkedIn for the interviews with this year's corrosion fighters, which are available on the [YEFC website](#).

With EFC support, the YEFC purchased Mentimeter, an interactive app that helps creating presentations with real-time feedback, such as live polls, quizzes, and multiple-choice questions. It was already used during the EFC Summer School and received great feedback.

The license runs for one year and is open to use for all EFC-supported events. Contact us at youngcorrosion@gmail.com to find out more information.

ABOUT US

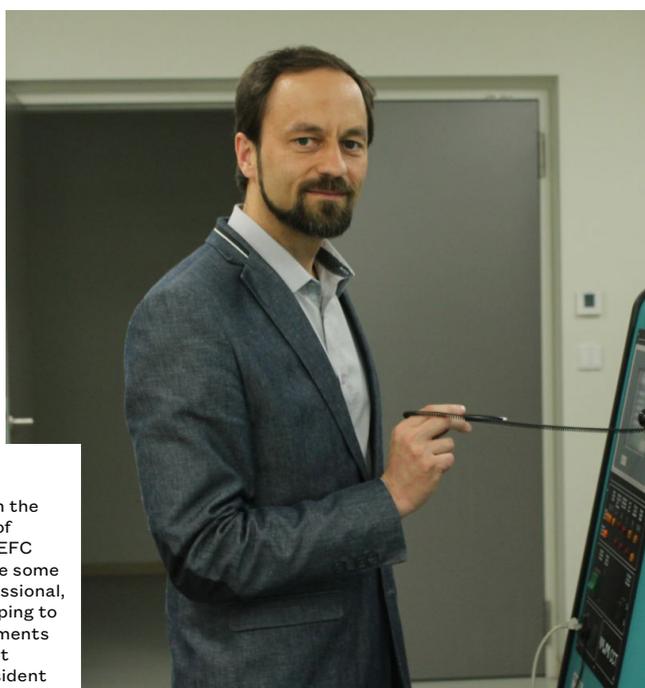
In addition to **Aytac Yilmaz** (Ore energy, Netherlands), **Leonardo B. Coelho** (VUB, Belgium), **Andressa Trentin** (VTT, Finland), **Marta Mohedano** (Universidad Complutense de Madrid, Spain) and **Noémie Ott** (OST, Switzerland), the YEFC board welcomed in October two new members: **Can Özkan** (Delft University of Technology, Netherlands) and **Claudia Martinez** (CorrosionRADAR, UK).

Claudia is an associate data scientist at CorrosionRADAR, but you might know her from the Get To Know The Corrosion Fighters series that she initiated in 2020. Can is a PhD candidate in materials science at the Delft University of Technology. He is working towards next-generation self healing aerospace coatings by investigating corrosion inhibitors, and he is fascinated about the intersection between electrochemical experiments and machine learning.

He will support the new initiative on science communication.

"WE HAVE SO MANY THINGS THAT WORK WELL AND WE NEED TO PRESERVE THEM"

DR. TOMÁŠ PROŠEK WILL SUCCEED DR. JÖRG VOGELSANG AS EFC PRESIDENT IN JANUARY 2023



Searching for an equilibrium between the volunteering spirit of being involved with EFC and a desire to make some aspects more professional, Tomáš Prošek is hoping to bring these two elements together in the most optimal way as President

Finding a balance in life is something that many people can associate with. It could be striving to find the perfect blend between work and home life, for example, and as Dr. Tomáš Prošek prepares to succeed Dr. Jörg Vogelsang as EFC President in January 2023, balance is also on his mind.

This time it's the challenge of balancing the volunteering spirit that has been so successfully adopted at EFC with the task of making some areas more professional. It's a challenge in any organisation, especially one with such a rich heritage.

"EFC has a history since the 1950s and many big names in corrosion have served as President in the past," explained Prošek. "There is this long line of people who did so much in corrosion and now it's my turn. That's a lot of responsibility, but I take it as an opportunity. Corrosion in Europe has changed a lot in past decades. What was very local or national is now truly European and EFC structure is not reflecting fully this change. We are still not sufficiently international, although indeed much more international

than 30 years ago. Here I see an opportunity to serve the community better than before."

Since January 2016, Prošek has headed the Department of Metallic Construction Materials at the University of Chemistry and Technology in Prague, but his EFC journey began in 2013 when he was appointed a member of Board of Administrators (BoA). Having served as President of the Association of Czech and Slovak Corrosion Engineers (AKI), where he helped to develop a series of training courses, Prošek also won the Polish Corrosion Society Prize in 2018 and the International Corrosion Council's Edward C. Greco Award for Leadership in Organisation and Conduct of the 20th International Corrosion Congress in 2017. And that leadership and organisation could come in handy.

"In the organisation there's a spirit of volunteering, as up to now, EFC has been - with small exceptions - based on volunteer work," said Prošek. "All working party chairs are doing their job for free. They build activities, bring people together, and chair for free. They do that because they like

their field and they want to develop it. And I would like to preserve that and build on it. I would like the people to feel appreciated for that.

"At the same time, I believe there are aspects where we need to be more professional and that's the reason we are hiring a Chief Operating Officer (COO) and considering ways for optimization of the administration of EFC. What I'd like is to find an equilibrium between these two and make them work naturally together.

"The core has to be professional and at the same time we need people who are enthusiasts, ready to put their time, thoughts, and efforts into EFC. We need to find a way to define organisation that allow these two parts working together in the most optimal way."

CHANGING TIMES

The appointment of a Chief Operating Officer at EFC marks a significant change in approach. Change though is a gradual process in Prošek's eyes, as he envisages little changes making the big difference.

"I think one of their responsibilities will be to improve the organisation of EUROCORR. It only needs a polish because EUROCORR works generally well. Just 20 years ago, we typically had 400 people attending, and in last three years, excluding Covid, we were regularly over 1,000, 1,200, even 1,400 attendees, so we've grown three times in past 20 years.

"Many people are coming even from Asia or Americas. That's because people have made small changes, making it even better and more attractive. Every year we have a new local organisation group and they do their best to make EUROCORR a great experience. But, a part of what they learn during their three years of preparation is forgotten because they will next organise EUROCORR in maybe 10 or 15 years. That's too long. We need someone who can transfer that work to the next year. This continuity is something that we miss a bit and is what we expect from our COO."

Change has been a feature of the EFC in recent years, exemplified by conferences in China in collaboration with local partners, with plans already in place for a regular event every second year. Young EFC proved to be an active and powerful platform for junior corrosionists. And with the current WCO President, Gareth Hinds acting as Prošek's VP there's even greater potential to broaden EFC's horizons and influence.

"There is one area in EFC where we're lacking capacity and that's lobbying, or raising awareness of corrosion problems. We are lacking experience. We are not naturally people who would ring the European Commission and ask for help as infrastructure in Europe is aging, and we may one day run into problems.

"I see a great opportunity working with WCO, because

historically it was basically a lobbying organization. And, I believe that Gareth as President has very good potential to expand this function. That's why we are strongly supporting WCO."

Change isn't something that's only pencilled in for the future at EFC. Change over the past decade has already transformed the look of the organisation, but that word 'balance' crops up again, as Prošek hopes to embrace this difference, while also holding the hand of what has elevated EFC to its current position. It's a fine line, as he explains.

"During the past 10 years, EFC has become more and more diverse. We have more women, we have younger people in the group, and we have more people from industry. Change will continue with a new BoA as we had an election and there'll be many new members from January.

"I'm really very happy for this new well balanced team, which includes representatives of all age groups from all quarters of Europe with more women than we had any time before. I think that there is a good chance that we can now continue improving EFC in a way that would be welcomed by everybody.

INCREASED LEADERSHIP

"I'm optimistic that we have leadership of EFC that is ready for change. I'm not

pushing things too much as I don't expect that in two years everything will be different. It's not even the goal. We have so many things that work well in EFC and we need to preserve them. That's important. But, we need to think how to expand and provide more service to corrosionists in Europe, and across the world."

The positives clearly outweigh the negatives for Prošek, who is careful to acknowledge and thank those who have helped EFC to its current position. And it's those people who he recognises make the organisation what it is, with inspiration for this collective approach coming from a regional ally.

"EFC is a strong organisation with lot of goodwill. We can often disagree on particular things within BoA or President's Advisory Committee (PAC), but in general you can feel all people are trying to make EFC better. We have the same goal and are moving in the right direction. That's perfect. And, if we find a way to better share within member societies to bring them closer to each other then that would make us even stronger.

"For example, I've been invited twice to attend a conference of the Polish member society and witnessed how they work hard to give more to their members. You can feel how much the members appreciate it too. The feeling is there and the vibe is really fantastic. I would like to help our member societies to learn from each other. I think that EFC is really changing for the better."

DR. TOMÁŠ PROŠEK'S CV

→ **2016 - PRESENT**

Head of Metallic Construction Materials at Technopark Kralupy

→ **2016 - PRESENT**

President of Association of Czech and Slovak Corrosion Engineers

→ **2014 - PRESENT**

EFC member of BoA, STAC, and VP

→ **2004 - 2015**

Senior Researcher and R&D Coordinator at Institut de la Corrosion

→ **2003 - 2004**

University of Chemistry and Technology in Prague

→ **2001-2003**

Guest Researcher at RISE, Sweden

"WHEN YOU HAVE GOOD PEOPLE, YOU CAN ACHIEVE ANYTHING"

GARETH HINDS (FICORR, FNACE, FIMMM, FRENG), NPL FELLOW AND SCIENCE AREA LEADER, ELECTROCHEMISTRY, IS ANNOUNCED AS THE NEW EFC VICE-PRESIDENT



Aware of the industry challenges and ready to make the most of his EFC Vice-Presidency, Gareth Hinds is aspiring to bring greater cohesion to the corrosion community with the help of his experience at the Institute of Corrosion and World Corrosion Organization

"I think the future is bright for the EFC," enthuses Gareth Hinds, who has not only recently been appointed as President of the World Corrosion Organization (WCO), but will also succeed Tomáš Prošek as EFC Vice-President in the New Year.

As NPL Fellow and Science Area Leader in the Electrochemistry Group at the National Physical Laboratory in Teddington, UK, Hinds is a dedicated corrosionist who has written over 200 publications, including 100 peer-reviewed journal papers, 22 conference papers, and 69 NPL technical reports. He sits on international standards committees IEC TC 105 (fuel cell technologies), IEC TC 21 (secondary cells and batteries), and ISO TC 67 (materials, equipment and offshore structures for petroleum, petrochemical and natural gas industries), which tells you something about his chosen speciality.

Appointed to the BoA in 2017, Hinds has attended EUROCORR since the noughties and revels in the conference's ability to bring people together and promote discussion. "It's just nice to feel part of a larger community and, particularly following the Brexit vote, I thought it was

very important to maintain the connection of the UK with the European corrosion community," he explained.

And that sense of corrosion community cohesion is at the forefront of Hinds' mind as he prepares for his role as EFC Vice-President, with one particular observation inspiring a sense of positivity. "I see a lot of very talented, intelligent younger people. When you go to EUROCORR now, there are just so many brilliant young corrosionists," he said.

"And, that's what gives me the greatest optimism. I think empowering them to get involved in things like BoA, STAC, the organization of EUROCORR activities, and Young EFC is a great step. It's a springboard to get involved with those type of things. So that's what gives me the greatest confidence in the future, because when you have good people, you can achieve anything. Harnessing those young people and empowering them is going to be key to the future success of the EFC. So, it would be really great to see them getting involved in the working parties, starting to act as vice chair or chair of some of these working parties, and this is something that we'll be strongly encouraging in the coming years."

And Hinds has plans. He seemingly doesn't want to reinvent the wheel, but instead recognises the potential of the groundwork that has already been laid.

"I'm very conscious of the great work that's been done by previous presidents in building and maintaining this community, but I guess one of the things I would like to ensure is - particularly coming from one of the large founder member societies - for smaller societies to feel equally part of the federation and that they have a say in what happens, and feel equal partners in what's going on," explains Hinds, who cites EUROCORR as another positive.

"I think the success of EUROCORR has been spectacular in terms of how it's grown over the past few years. And, notwithstanding the Covid pandemic, it is probably the top scientific conference in corrosion in Europe, arguably even in the world. It increasingly attracts people from Asia, America, Africa, the Middle East, and the standard of talks is extremely high. So I think ensuring that it continues to be a major event in the calendar is a key priority. Going forward, there are moves to put it on a firmer footing with the appointment of a Chief Operating Officer. So, one of my tasks as VP and then as President will be to work closely with this person to continue moving the EFC towards a more professional footing."

Despite this cause for optimism in the future of the EFC and the corrosion community, Hinds remains keenly aware of the obstacles in the industry's path.

"Clearly, the economic backdrop is going to be a big challenge for the next few years, as it looks like there will be a global recession. The war in Ukraine is obviously an issue and the cost of living crisis too. But, looking beyond that I'm pretty confident the future is bright for the EFC. I think EUROCORR has really been consolidated as our flagship event.

So, I think with the right people getting involved, the sky is the limit."

With expertise in the development of novel in situ diagnostic techniques and standard test methods for assessment of corrosion and material degradation in energy applications, Hinds is no stranger to delivering solutions to engineering problems, but when questioned whether this is the beginning of an electrochemist era at the EFC, Hinds prefers to focus on the bigger picture.

"Electrochemistry is always an important aspect of corrosion, but of course, it's not the only one. It's a branch of science that drives innovation in corrosion and while future careers depend on the work that's being done in electrochemical research, corrosion is much more than electrochemistry. It's material science, it's mechanical engineering, it's data science now. Research in the science and engineering of corrosion will always be a really important part of the EFC. So I think that does play to my

strengths as a scientist and engineer working on next generation technologies and continually trying to push the boundary of what's possible with technology. But, at the same time, I'm fully aware of the importance of other parts of the corrosion community. It's about bringing all these different parts of the corrosion community together. So even though that's my natural comfort zone, I try to embrace the whole community."

COMMUNITY COHESION

And that community embrace is perhaps made all the more cohesive by Hinds' past as Institute of Corrosion (ICorr) President, and his present as the current WCO President.

"I really see the WCO and EFC roles as very much bringing people together and having a collective voice on things like policy and awareness and visibility of the importance of corrosion protection. I think I'm already learning a lot through my presidency at the WCO. I also learned a lot as president of ICorr, and I think that experience will stand me in good stead.

"When you're the Vice-President or the President of a professional body, it really is all about the people. It's all about building relationships, making people feel accepted, and a part of something bigger. I guess I already knew that, but it really came home to me in a significant way. There are lots of dedicated, enthusiastic people who make things happen, and it's just about enabling them and empowering them to get things done."

The aspirations are understandably high from someone who is taking up their third role with an international professional body – ICorr, WCO, and now EFC. How these aspirations will translate is something for the future, but Hinds is optimistic and believes he's in a position to progress the EFC and the industry.

"I would like to increase the visibility and importance of corrosion beyond the existing corrosion community who know each other well. So, along the road – and I don't know how far we'll get – but I'd like to make the general public more aware of the importance of corrosion.

"Making politicians, European commissioners, regulators, governments, and funding bodies much more aware of the importance of corrosion is an important step. As we have seen in recent decades, awareness in general of the importance of corrosion and funding for corrosion activities has slowly been declining.

"And corrosion is never going away. It's a thermodynamic certainty that it's going to happen. So, much as it's great to push into the new, we have to improve how we disseminate existing knowledge to everyone. If I can contribute to the awareness and dissemination of knowledge and bring people together, then that would be a legacy that I would aspire towards."

GARETH HINDS' CV

→ **2002 - PRESENT**

NPL Fellow/Science Area Leader,
Electrochemistry Group, NPL, UK

→ **2022 - PRESENT**

President, World Corrosion Organization

→ **2018 - 2020**

President, Institute of Corrosion

→ **2019 - PRESENT**

Royal Academy of Engineering Fellow

→ **2017 - PRESENT**

NACE Fellow

→ **2015 - PRESENT**

IOM3 Fellow

→ **2014 - PRESENT**

ICorr Fellow

→ **1992 - 2002** Electrochemistry

PhD, Trinity College Dublin

"I LIKE TO GIVE BACK TO THE CORROSION COMMUNITY"

STEFAN RITTER SUCCEEDS WOLFRAM FÜRBEETH AS THE CHAIR OF THE SCIENCE AND TECHNOLOGY ADVISORY COMMITTEE



Following on from his success as Chair of the Working Party 4, Stefan Ritter is hoping a few minor fixes will progress STAC even further, beginning with a drive to engage more young people and a focus on equality

Based in the picturesque canton of Aargau in Switzerland, Stefan Ritter begins every working day cycling across the River Aare to his role in the Lab for Nuclear Materials in the Nuclear Energy and Safety Research Division with the Paul Scherrer Institute.

Ritter specializes in environmentally-assisted cracking at the institute where he has worked for the past 21 years and held the position of Chair of the Working Party 4 (WP4) on Nuclear Corrosion for six years, but in the New Year he'll take on a new role as Wolfram Fürbeth's successor as Chair of the Science and Technology Advisory Committee (STAC).

"It was clear that, of course, it's a great honour [to be nominated] and as I enjoy this kind of management type of job, I couldn't say no. And with the scientific part of the role, I think it's something that I'll really enjoy. I also regard it as a way of giving back some of the great support and experience I profited from in the past. I like to give it back to the corrosion community," said Ritter of his welcome nomination to chair the STAC.

Giving back to the corrosion community won't be anything new for Ritter, whose involvement with the WP4

has led to him organising and chairing sessions on Nuclear Corrosion at EUROCORRs. He has also been a driving force behind the series of Nuclear Corrosion Summer Schools, aimed at students or employees from industry and research organisations looking for a comprehensive overview of nuclear corrosion. ([Click here](#) to find out more about this year's school). Designed to facilitate networking and knowledge transfer from seasoned experts to the younger generation, the programme is this year offering two student grants, and that positive approach to the next generation is one that Ritter would like to emulate in his new STAC role.

"One focus of mine is that I would like to involve new people and especially young people during the next few years. We are very good at this already, but I have identified during the past few years some areas for improvement. But to do this I will need to get some help from STAC colleagues and the whole EFC leadership. So, that will be one of the first steps – to see if we can motivate even more people, especially young people, hopefully. Another small task will be to further establish the EFC Hub to be used as an

additional co-operation platform for the corrosion community as well as for the EFC leadership.

"We already have the excellent EUROCORR with many beautiful working parties and their sessions. Thankfully there's not a major issue, I would say, but there are still a few working parties which were not that active in the past. So, I would like to place another focus on this and how we can support those working parties to help restore activity.

"Perhaps this can be achieved by appointing vice-chairs to working parties (there are quite a few which don't have one). This could also be a good way to involve new and ideally young and female people in the activities of the EFC and EUROCORR."

NEW BEGINNINGS

Ritter succeeds Prof. Dr.-Ing. Wolfram F ü r b e t h o f D E C H E M A - Forschungsinstitut, whose three year term in office as STAC Chair comes to a conclusion at the end of 2022. For Ritter the job will be about continuing the excellent work of his predecessor, but where possible he's also been eyeing a few areas for some minor developments.

"I'm the lucky one," explains Ritter, "I'm taking over a very well run STAC. So, that's a good point and there are no urgent improvements needed. But on the other end, of course, I think you always should think about possible small improvements. As soon as you stop developing or stop thinking about possible improvements, then it's like going a step backward. Even if something is running reasonably well, it's dangerous to say there's no reason to do anything. I think there's always room for improvement, even if it's just very small. So,

that's why I'm in the process of thinking what small, tiny things we can still improve. Luckily there are no major changes needed at the moment."

And, while there might be a few tweaks to be made, Ritter recognises the position isn't about his personal progress. Instead, the new man in the middle has the interests of committee central to his thoughts.

"Sometimes I say that it's like being a referee in a soccer game. If you don't remember them after the game, then the

game probably went quite well. So, maybe if everything is running smoothly after my term and the STAC/EUROCORR is in good shape – and even if nobody really remembers me for anything specific – then I think I would be very happy, actually."

"From a scientific point of view, I'm quite optimistic. EUROCORR in Berlin was after the Covid break such a great event with excellent sessions, vivid scientific discussions, and social interactions, which we have been truly missing during the online meetings. And, I think that next year's conference looks very promising as well," he adds. And if we can still improve things like equality and filling up these Working Party Vice Chair positions, then that would be a really positive step.

"Of course this won't be an easy task, because it seems to become more and more difficult to find experts who are active in the same field for a longer period, are relatively young, and who are willing to engage themselves with great passion to this voluntary type of work, but I'll do my very best to achieve this anyway and would be happy for that to be my legacy."

STEFAN RITTER'S CV

→ 2001 - PRESENT

Research Scientist, Paul Scherrer Institute

→ 2016

Chair of the EFC Nuclear Corrosion Working Party

→ 2012

Scientific Secretary of the International Cooperative Group on Environmentally-Assisted Cracking of Water Reactor Materials

→ 2004

Founder of the European Corrosion Monitoring of Nuclear Materials Group

→ 2000 - 2001

Research Engineer, Siemens KWU

NEWLY-ELECTED EFC MEMBERS TO JOIN BoA IN NEW YEAR

In addition to the appointment of a new President and Vice-President, EFC will welcome newly-elected members of the Board of Administrators for the next three-year term of office from January 2023.

The new members include, **Claude Duret-Thual** (France), **Lorenzo Fedrizzi** (Italy), **Yaiza Gonzalez-Garcia** (Netherlands), **Bartłomiej Guzik** (Poland), **Marta Mohedano Sánchez** (Spain) and **Olivier Rod** (Sweden), together with **Herman Terryn**, the newly appointed representative of the country of EFC's registration in law (Belgium).

They are joining the re-elected board members, **Patrick Keil** (Germany), and **Milan Kouril** (Czech Republic), and the re-appointed board members **Andreas**

Förster (DECHEMA), **Philippe Marcus** (CEFRACOR), and **Gareth Hinds** (IOM3), who represent the three EFC General Secretariats.

Retiring from the Board of Administrators at the end of 2022 are **Mario G.S. Ferreira** (Portugal), **Agnieszka Królikowska** (Poland), **Bálint Medgyes** (Hungary), **Arjan Mol** (past President – Netherlands), **Marie-Georges Olivier** (Belgium), **Edoardo Proverbio** (Italy), **Marcel Roche** (France) and **Patrik Schmutz** (Switzerland).

EFC is very grateful for the hard work and many hours of their time that all members of the BoA have spent working on behalf of the Federation and would like to cordially thank them for their effort.

NUCLEAR CORROSION SUMMER SCHOOL RETURNS FOR THIRD TERM

**AND THIS YEAR IT'S BEEN ANNOUNCED THAT
TWO STUDENTS WILL BE SPONSORED BY THE EFC**

WP4
Nuclear Corrosion

It has been announced that two student grant applications sponsored by the EFC will cover the accommodation and registration fee for the third edition of the Nuclear Corrosion Summer School (NuCoSS-23), with grant applications closing on 28 February 2023.

Taking place from 2 to 7 July 2023 at the Hotel Špik, Alpine Resort, Gozd Martuljek, Slovenia, NuCoSS-23 – which is co-organised by WP4 – follows on from successful events in 2015 and 2019.

Registration for the Summer School expires on 1 May 2023, with student fees for single three-star room priced at €990, or €1,590 for a single four-star room standard ticket. The fee includes full cost accommodation in Hotel Špik, access to the lectures, and electronic handouts, while EFC members receive a discount.

Intended for people from nuclear authorities, industry and research organisations who would like to get a comprehensive overview on the whole field of nuclear corrosion, the programme is designed to facilitate networking and knowledge transfer from seasoned experts to the next generation.

Internationally renowned experts (including, D. Féron,

F. Scenini, D. Engelberg, R. Kilian, H.P. Seifert, R.-W. Bosch, P. Efsing, J. Noël, L. Martinelli, P. Schrems, and S. Ritter) will give lectures on electrochemistry and corrosion, corrosion in the nuclear cycle, corrosion in light water reactor plants (including a focus on environmentally-assisted cracking), corrosion in nuclear waste disposal systems, corrosion in Gen IV systems, case studies and ageing management, as well as advanced characterisation techniques.

Co-organised by the EFC WP4 on Nuclear Corrosion and ZAG, the Slovenian National Building and Civil Engineering Institute, [more information on the Summer School is available here](#) or by contacting nucoss@ecg-comon.org. [Click here](#) for info on the EFC Grant and application form.



Returning to the Alpine Resort in Slovenia, the third Nuclear Corrosion Summer School for people from nuclear authorities will next year include two student spaces sponsored by the EFC

NEW EFC TASK FORCE ON CORROSION OF MEDICAL IMPLANTS AND DEVICES

IT AIMS TO PROVIDE BETTER BIOCORROSION PREDICTION AND PREVENTION OF IMPLANT AND MEDICAL DEVICE FAILURE

Details of a new EFC task force have been announced, which will aim to provide a better understanding of biocorrosion prediction and prevention of implant and medical device failure.

Interactions of implanted materials and devices with the human body are still largely unknown and their detrimental effect on the material stability and body responses are sometimes underestimated, which is evident from failure reports. Nevertheless, the medical field relies increasingly on the use of medical materials for therapies ranging from implants for fracture fixation or cardiovascular intervention to more advanced monitoring and sensing medical devices. Consequently, reliable testing protocols are required that reflect the dynamic, aggressive local chemical environment that cells and tissues create. These testing protocols need to provide the required level of details, i.e. at relevant sensitivity and magnification at which material dissolution may occur.

Considering the current understanding of material-biology interface interactions, it is evident that macroscopic aspects of implant/medical device failure are already documented. There is however, a clear lack of understanding of the processes occurring that underlie the formation of micro- and nanoscale corrosion products and ionic leaching, as well as their consequences. The task force (TF) aims to better understand these 'invisible' processes to provide better biocorrosion prediction and prevention of implant and medical device failure. The TF thus addresses patient safety as the prime stakeholder. The TF will focus on:

→ Improving in vitro protocols for corrosion susceptibility assessment of permanent and biodegradable devices

→ Identifying mechanisms underlying the formation of nanoscale and ionic products and deriving structure-stability/reactivity correlations. This understanding will support corrosion prevention strategies

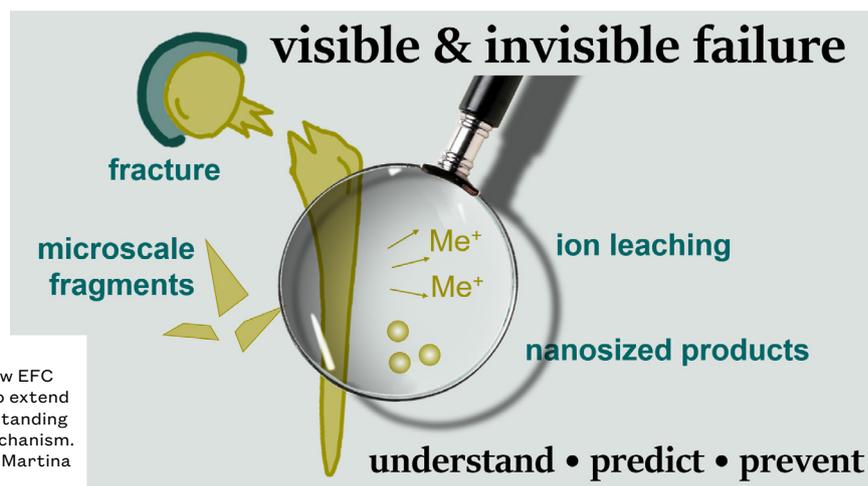
→ Developing new analytical methodologies to advance the detection limit (trace element, lateral resolution) for more detailed investigation of degradation mechanisms.

The TF will foster collaboration and

exchange between academic fields from material science, electrochemistry to biology, with their fundamental knowledge and experimental capabilities. It will increase awareness for chemical surface reactivity and enhance visibility of the topic to attract biomaterials experts and clinicians to foster the discussion on clinical challenges and patient needs. The TF actions aim at supporting a responsible medical technology development behaviour.

What is urgently needed, especially from a patient health perspective, is better tracking (detection) and tracing (distribution in human body) of released particles and ions. The prime focus of the TF is on metallic implants/devices but not restricted to, acknowledging that polymer degradation can also cause problems. For either material class, processes occurring at the nanoscale seem to be overlooked according to 'what cannot be seen does not exist' and will not be assessed for their toxicity or adverse biological reactions.

In the corrosion mechanisms description, the TF will work on experimental protocols integrating chemical stability criteria in implant/device validation processes, considering also worst-case scenarios. For instance, it should be considered that most implanted objects will experience some degree of micromotion and corrosion-fatigue, making simple immersion tests insufficient for validation. The TF aims at defining improved testing protocols that also include mechanical loading situations. At EUROCORR 2023, the TF will host a symposium on the core focus of Corrosion of Medical Implant and Device and co-organise a joint workshop on Corrosion and Corrosion Protection of Additive Manufactured Metals for Biomedical Applications. [Click here](#) for more information.



The focus of the new EFC task force will be to extend the current understanding of biocorrosion mechanism. Design courtesy of Martina Cihova

UPCOMING EFC EVENTS 2023-2025

MAKE A DATE IN YOUR CORROSION CALENDAR FOR ALL THE LATEST EFC EVENTS

SCUOLA DI TECNICHE ELETTRICHEMICHE PER LO STUDIO DELLA CORROSIONE 'CECILIA MONTICELLI' ORGANISED BY AIM

Ferrara, Italy, 7-9 February 2023

EFC Event No. 492

Organised by AIM

Scope: The objective of the school is to present an in-depth overview of electrochemical techniques, both traditional and advanced, used in corrosion science and engineering and to provide the fundamentals that allow selecting the most appropriate technique for a specific problem, understanding its limitations and correctly interpreting the results obtained. The School is dedicated to memory of Prof. Cecilia Monticelli. The School is primarily aimed at PhD students and young researchers.

Conference language: Italian

To find out more, [click here](#).

ALUMINIUM SURFACE SCIENCE & TECHNOLOGY (ASST2023)

Saltsjöbaden, Stockholm, Sweden, 21-25 May 2023

EFC Event No. 489

Organised by the Royal Institute of Technology (KTH) with the support of RISE (Swedish member association)

Scope: Several scientific topics focussed on aluminium, corrosion, surface treatment and applications

To find out more, [click here](#).

3RD NUCLEAR CORROSION SUMMER SCHOOL (NUCOSS-23)

Gozd Martuljek, Slovenia, 2-7 July 2023

EFC Event No. 488

Organised by the EFC Working Party on Nuclear Corrosion

Scope: The summer school will cover all necessary topics, starting with fundamental electrochemistry, to provide a self-consistent understanding of nuclear corrosion issues. Internationally renowned experts will provide interesting lectures.

To find out more, [click here](#).

GIORNATE NAZIONALI CORROSIONE E PROTEZIONE - XV EDIZIONE

Torino, Italy, 5-7 July 2023

EFC Event No. 491

The most important national event on corrosion organised by the Associazione Italiana di Metallurgia (AIM) with the support of APCE, NACE Italy and Politecnico di Torino.

Conference language: Italian

To find out more, [click here](#).

SAVE THE DATE

EUROCORR 2024

Paris, France, 1-5 September 2024

EFC's annual EUROCORR conference in 2024 is hosted by CEFACOR, the French Corrosion Society.

Scope: The programme will include plenary lectures, keynote lectures oral and poster presentations in all the areas covered by the EFC working parties. In addition, the following topics will be included: Corrosion and corrosion protection issues in additive manufacturing; Design and performance of corrosion resistant High Entropy Alloys (Multi-Principal Element Alloys); Durability of materials for hydrogen-based energy systems; Certification in corrosion and corrosion protection.

Website: coming soon

EUROCORR 2025

Stavanger, Norway, 7-11 September 2025

For the complete listings of future corrosion events around the world, visit the [EFC Calendar of Events](#).



LEGAL NOTICE

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MERRY CHRISTMAS FROM ALL AT EFC

AND WISHING YOU A HAPPY NEW YEAR

