



IRRADIUM MAGAZINE



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MCAA Chapters

Chair's Letter



Dear MCAA Members and Readers,

The MCAA connects people who share a sense of curiosity, adventure, exploration and creativity. These people strive to seek out new knowledge, exchange ideas and enlighten those around them. These people are researchers, and research is what defines us.

As the Board convened last year in May to begin planning for the 7th MCAA Annual Conference, a strange thing happened. We came to an agreement with little delay as to the theme of the event: Research and Democracy. There wasn't much discussion, nor many alternative suggestions. Linking these two topics just made sense given our present moment in history.

Research strives to be the domain of logic and reason, experimentation and objectivity. Democracy strives to give people control of their own rules, their own well-being.

When democracy is threatened, so too are the researchers who seek to uncover facts and truths which no person can negate or overturn.

We were reminded of the fragility of democracy and the backlash which research endures when the Board took part in the World Science Forum in Budapest in November 2019.

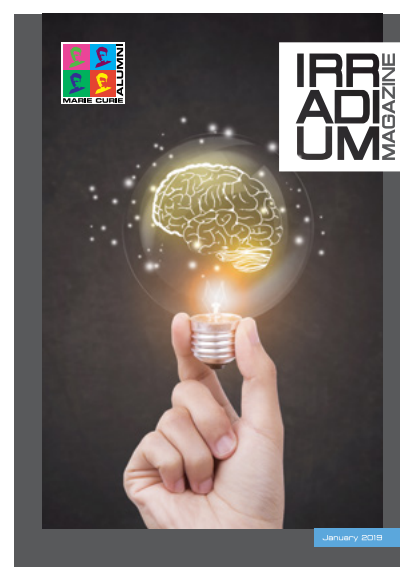
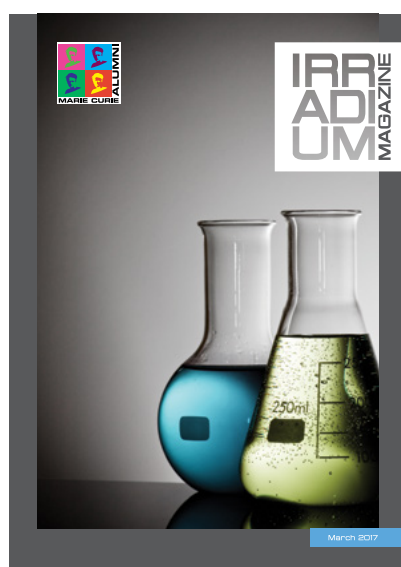
The event took place in the aftermath of two troubling developments.

Firstly, the Central European University was stripped of their ability to award US-accredited degrees, forcing it to move most of its operations from Budapest to Vienna.

Secondly, the Hungarian Academy of Sciences, despite playing host to researchers, scientists and policymakers from across the globe, had been stripped of its autonomy and independence.

These events are sadly just examples, and definitely not isolated, as governments around the world seek to consolidate power and suppress voices of reason and dissent, many of which are based in science and research.

“ This is why MCAA exists. Researchers may feel weak as individuals, struggling against scarce funding, constant rejections, self-doubt and uncertainty. But as a community we thrive, because working together we have enough data, enough resources, enough support, and enough knowledge. ”



And while this is going on around us, we take so much for granted as researchers, putting our minds to great work on minor tasks, striving to learn a little more, publish a little more, win a little more funding, and build a little more ego.

As we fight our little battles against our data, our methods, our supervisors, our competition, and ourselves, we miss the big changes happening around us.

This is why MCAA exists. Researchers may feel weak as individuals, struggling against scarce funding, constant rejections, self-doubt and uncertainty. But as a community we thrive, because working together we have enough data, enough resources, enough support, and enough knowledge.

MCAA is many things. We are Science Policy and Science Diplomacy. We are Science Communication and Career Development. We are Networking and Support.

I welcome you all to read the pages of this issue of IRRADIUM and reflect on what MCAA is today, what it can be tomorrow, and how you would like to be a part of it.

MCAA has been a part of me for 6 years, and as you read this, my tenure as Chair will soon come to an end with the closing of the General Assembly on March 29 in Zagreb.

I am so grateful for the support of our members, the Board who dedicated their time and energy for MCAA over the last 2 years, and the countless volunteers who have helped MCAA grow into the community it has become.

Sincerely,

Matthew DiFranco
MCAA Chair

Research and democracy top MCAA General Assembly and Annual Conference

The agenda for the 2020 MCAA General Assembly and Annual Conference in Zagreb (Croatia) is inspiring. Maja Mise, in charge of the organisation, tells us more about the numerous sessions.



BEHIND THE THEMATIC

Democracy can mean different things to different people and in different places. The term democracy comes from the ancient Greek word *demokratia*, and it is a compound word linking *demos* ("people") and *kratos* ("rule" or "power").

For the MCAA, this is particularly topical. "Research and democracy" is the theme of this year's annual conference. Participants will discuss how democracy's link with the people may be jeopardised by numerous issues brought by the digital revolution, such as big data, social media, and fake news. "We now have the technological means for direct democracy, as it was practiced in ancient Athens, and yet we must question if this is the best form of government," notes Maja. "Tensions are indeed growing between people and nations."

At the conference in Zagreb, participants will discuss how researchers can become engaged with society and how they should communicate scientific research in this fast-changing landscape. "The MCAA 7th General Assembly

and Annual Conference will serve as a forum to discuss all challenges that the modern world faces," adds Maja. "So, please, join us on 28 and 29 March. We are looking forward to welcoming you in Zagreb."

PLENTY OF PARALLEL SESSIONS

A total of 16 parallel sessions will make up the Annual Conference. Below is a brief outline of several of these sessions, with topics spanning from democracy to the environment, from career development to business.

Democracy at risk

From automated bots influencing elections worldwide to digital democracy platforms, the democratic landscape of the Western world is being challenged by new communication media forms. This session discusses the good, the bad and the ugly of the influence of the digital industry. The session will also address how social media are employed in political campaigns, both by external parties and internal political figures, and what the responsibilities are of industry giants like Google and Facebook.

At interference of AI, Neuroscience and Policy

Modern society is witnessing a great merger between academia and industry in the fields surrounding AI, machine learning and neuroscience, including technologies to interface our brains with electronics. As the session organiser notes, what used to be the stuff of science fiction will soon be reality; in some cases it already is. This session brings together four experts of these emerging policy and technology issues to talk and debate their ideas for the future.

Diversity & inclusion in leadership for Excellent Research beyond Horizon 2020

This session will highlight the challenges faced by researchers – from different ethnicity, gender, socio-cultural/religious groups – throughout their research careers and

especially when attempting to reach leadership positions. Panellists of the session will provide examples of the hardships paving the research/academia career pathway, propose and discuss with the audience potential science policy solutions.

Structural violence and harassment within the scientific environment

The importance of healthy scientific environments is the topic of this session. Participants will discuss how researchers should be surrounded by positively motivating factors, as well as the tools and actions for mitigating the structural violence, aiming at societal transformation, on the one hand, and the effective attraction of structural best practices, on the other.

Intercultural Competences in a Multi-Cultural Workplace

Participants in this session will tackle questions about how individual competences and teamwork experience can be used to optimise intercultural collaboration and the circulation of ideas in mixed teams, as well as draft the outcome of the discussion as a basis for a future MCAA project on intercultural competences in the workplace.

Developing Effective Leaders in a Disruptive World

Researchers are often required to utilise leadership skills to lead a team or a project to advance the field. A competent researcher can complete a specific mission, but a true leader is a visionary. This session will introduce a range of leadership techniques, enabling each participant in these challenging times to develop additional skill-set and grow as a leader, especially in these challenging times.

How to be an entrepreneurial researcher

Researchers acquire competencies to act upon opportunities and ideas, and transform them into value for others by mobilising resources. Participants in this session will discuss the following questions: Why do we need researchers to be entrepreneurial? How is the impact of such training on researchers' careers and society measured? How could universities and research

institutions include these aspects in their curricula? What incentives can be provided to universities and research institutions? What have we learned so far from pioneering curricula?

Art of Storytelling

This session will focus on embodied communication, and how the body and voice work to support compelling content, connecting the body and the voice, and using vocal tone, pitch, pace and pause, as well as how to create a compelling narrative. This session is highly useful to communicate science research, whether at conferences or in papers.

Behind the scene of a business venture, Season 2

What are the factors behind the successful entrepreneurship venture or a business idea, and how can a researcher, being in academia, start their own business? MCAA members, who started their start-up or business, are ready to answer these questions.

Widening participation in SE Europe: Science for Societies in Transition

Western Balkan countries have experienced difficult times recently that slowed down progress in their research and innovation sectors and continue to cause a pronounced and continuous 'brain drain'. This session explores how and why science is relevant to societies in Southeast Europe, and how this message can better reach and reflect public concerns in places which remain in transition, be that political, economic or social.

The role of research and democracy in responding to today's global challenges

This year's General Assembly and Annual Conference will prove to be fertile ground for research and democracy, underscoring the topic's importance. We sat down with moderator Matthew DiFranco and speaker Mostafa Moonir Shawrav, both of whom are actively working to develop science diplomacy as an interest area for members.

The 'MCAA Forum on Research and Democracy' session was held at the Hungarian Academy of Sciences in November 2019. Organised under the auspices of the 20th World Science Forum, the session highlighted the historical role of research in democratic societies and brought up lessons from that history to shape how the research community responds to the challenges faced today. They include the global rise of political threats to democratic values and broader societal challenges.

In 2018, DiFranco attended the American Association for the Advancement of Science (AAAS) Science & Diplomacy workshop in Washington, DC. AAAS' pioneering efforts help to advance both science and the broader relationships among countries by promoting science diplomacy and international scientific cooperation. The MCAA Chair is using his training to get MCAA members to advocate for a stronger role of research and scientific knowledge in policy. This year's General Assembly and Annual Conference will prove to be fertile ground for research and democracy, underscoring the topic's importance.



RESEARCH AS A DEMOCRATISING FORCE

"In society, researchers play a critical role in understanding the world around us, democracies thrive when the people are informed and have a voice," explains DiFranco. "There's a larger mission for researchers defined in part by democratic ideals that can be achieved through collaboration and some sort of shared values." He continues: "People committing their careers to this endeavour of advancing knowledge should play a part in ensuring that societies can achieve democratic norms where health, education and security are assured."

When it comes to democracy in research, DiFranco states that the session stressed the need for education. "There's a need for quality education at a basic level to ensure that the public is educated enough to understand and to differentiate between fake and real news, to grasp and apply critical thinking and logic in order to make sound decisions for society," he says. "Education, this is where researchers can play an active role to promote it, disseminate information, set up society to publish things openly, and to interact with journalists and government."

"We have the knowledge, the evidence, and basically we have the best people who can solve the current global challenges," notes MCAA Vice-Chair Mostafa Moonir Shawrav, who was also one of the speakers. "As scientists, it is really high time we take responsibility, and stand and work together to solve pressing issues. The role of scientists and researchers in democratic societies is often threatened when democracy is at risk." He adds: "We are living in an era of specialists, everyone is a specialist, and that is compartmentalising us. We sometimes miss the bigger picture, we need to include every faculty and specialty in the decision-making process. Only then can we meet global challenges."



Moonir calls attention to “scientific discovery”, and whether all stakeholders in the higher education domain have the same understanding of research and its role. In theory, these academic institutions are democratic, but aren’t so in terms of real decision-making. For him, a lot comes down to decision-making. Researchers need to be empowered to influence such decisions.

THE PANEL WEIGHS IN

All five speakers see a connection to today’s issues of democracy: questions about researchers’ responsibility, where money goes and why, and if research can weaken democracy. They discussed the North-South and East-West divide, and the imbalances that exist between global economic regions in research ecosystems. Murat Güneş (Secretary) indicated that emigrating North or West is a question of both funding and motivation. Researchers are encouraged to seek greener pastures because they have no established role to play a part in their country’s welfare and development. Gábor Kismihók (Chair) emphasised the prevalence of MCAA chapters in Western Europe and North America. He considers brain drain as the divide’s biggest challenge. Researchers all over the world are pursuing higher education in the Western world, departing their native countries and greatly reducing the chances of returning in the future. There is a need to look into mitigating this human capital flight.

With such radical changes in the world, Zsofia Buttel (Board Member) calls on researchers and scientists to make sure first-rate information is conveyed to shape decisions. She considers universities’ overarching goal to be education, and regrets the pressure they undergo to function primarily for economic purposes as driving forces of innovation. Trust also needs to be established between

researchers, policymakers and the rest of society. A winner-take-all funding system seems to predominate. Nehama Lewis Persky (Board Member) observes a zero-sum scheme for researchers in several countries.

GET ACTIVE IN UNDERSTANDING POLICY

In addition to getting more involved in associations like MCAA, DiFranco encourages members to engage locally as much as possible. “If you are a PhD or postdoc interested in policy, learn about laws that govern science research in your country, and ethical standards and structures in place in higher education. Who makes the decisions and appoints professors? Is it the government or private enterprise?” He also recommends holding politicians in office accountable. “Engage with policymakers who are specifically focused on research, education and science, and start a conversation with them. Look up current policies and regulations, what is being proposed, who sits on working groups, and how much industry and public influence there is.”

Find out more:

The [MCAA Policy Working Group](#) focuses on science policy and deals with topics such as researcher mental health, open access and academic refugees. The [American Association for the Advancement of Science \(AAAS\)](#) and [The World Academy of Sciences \(TWAS\)](#) are the two leading providers of top-notch lectures, workshops, courses and fellowships on science diplomacy. They also provide resources for science research and democracy.



Horizon Europe prepares for launch

The European Commission's flagship research and innovation programme aims to attract more investments. But it is also designed to feature savvier branding and refined salesmanship.

Advancing research and embedding it further into the public consciousness has become a top priority for the European Union, according to Brussels officials. Horizon Europe 2021-2027 reflects Europe's latest testament to this pursuit.

Building on the seven-year success of Horizon 2020 – the European Commission's previous flagship research programme – Horizon Europe provides for an ambitious EUR 100 billion research and innovation programme designed to maximise the scientific, economic, and societal impact of investment in research and innovation.

Some of the most promising missions aspire to achieve plastic-free oceans by 2030 and ensure the survival of three out of four cancer patients by 2034.

To this end, Horizon Europe, which kicks off in 2021, aims to attract more investments from the industry and member states. But it is also designed to feature savvier branding and refined salesmanship with the aim of meeting the Commission's goal of "injecting some excitement in Europe through new science missions,"

according to Carlos Moedas, the Commissioner for Research, Innovation and Science.

That includes making "targeted use of social media" in order to strengthen the link between science and society.

"The public needs to hear something stirring and feel inspired," Moedas said in the first planning phases of the programme. "We don't feel the same sense of purpose as we did in the past. We say we will invest more in materials or in renewable energy but people in the street do not understand much of that... Or about mapping the brain."

The European Parliament endorsed a provisional agreement on the programme in April 2019. Since then, the Commission has begun a strategic planning process designed to prepare the content of work programmes and call for proposals for the first four years of Horizon Europe.

Its three pillars of focus will include Science and Innovation, placing particular emphasis on Global Challenges and European Industrial Competitiveness, for which more than



half the budget, or else 52 % of the estimated EUR 100 billion, will be allocated.

Through the first key phase of the strategic planning process, views and ideas of more than 7 000 respondents were collected through web-based surveys adding to an in-depth debate of more than 4 000 participants in Brussels in September 2019.

The full strategic planning process will run through 2020, before Horizon Europe is launched on 1 January 2021.

A MISSION-ORIENTED APPROACH

Under details of the programme, a total of five mission areas will be included, ranging from issues relating to climate change and cancer to achieving clean oceans and acquire great knowledge of soil health. Each mission will include a dedicated board and assembly.

Partnerships, meantime, will also be encouraged. Those already established and funded under the Horizon 2020 programme may be extended under the Commission's latest research and innovation project.

In order to maximise the impact of public investment in research and innovation, the implementation of the project's five stated missions is crucial.

Missions have been designed as "umbrella actions," drawing funds from several clusters or other parts of the Horizon Europe programme. They will also develop synergies with national initiatives.

The maximum budget allocated per mission is expected to reach EUR 600 million.

Still, mission funding must not exceed 10 years. They will also be subjected to routine supervision.

It is important to underline that flagship initiatives in future and emerging technologies will not continue in their present form. Depending on their particular characteristics, they may evolve in missions or partnerships, or continue to be supported as regular collaborative projects.

According to the Commission proposal, Horizon 2020 Future and Emerging Technologies (FET) Flagships share similar characteristics with missions. Accordingly, any new FET Flagships under Horizon Europe will be designed as missions and their implementation will be subject to the same provisions.

Horizon Europe dedicated website
<http://ec.europa.eu/horizon-europe>

European Innovation Council
<http://ec.europa.eu/research/eic>

EU budget for the future
http://ec.europa.eu/budget/mff/index_en.cfm

Steering through EU bureaucracy to win funding

The EU has several different funding programmes, depending on the nature of the business or project.



Starting a business requires financing. The European Union offers an array of opportunities, which may not always be easy to track down. As new funding elements emerge, it becomes so important to keep up with the changes to steer through bureaucratic processes that may require specialised staff.

Small and Medium-Sized Enterprises (SMEs) may be able to secure funding from a number of EU programmes ranging from COSME (the EU Programme for the Competitiveness of Enterprises and Small and

Medium-sized Enterprises), Connecting Europe Facility and Horizon Europe to REGIONAL and Agricultural Policy funds.

COSME, for example, aims to facilitate financing procedures for SMEs irrespective of the companies' lifecycle – start, expansion or business transfer. This allows businesses to gain easier access to guarantees, loans and equity capital. EU “financial instruments” are channelled through local financial institutions in EU countries. Potential beneficiaries who wish to find a

financial institution in their respective country should visit the Access to Finance portal (see here: www.access2finance.eu).

Likewise, funding for agriculture-related programmes comes from two funds that form part of the EU's general budget. These include the European Agricultural Guarantee Fund (EAGF), that helps finance direct payments to farmers, and the European Agricultural Fund for Rural Development (EAFRD), that co-finances numerous member-state rural development programmes.

SMEs are also eligible for funding under the CEF (Connecting Europe Facility) programme, which finances projects related to energy, transport and ICT. The CEF is managed by INEA, the Innovation and Networks Executive Agency. SMEs, meantime, can also get up to EUR 2.5 million each in funding for business support and mentoring. Horizon 2020 areas are managed through the Executive Agency for SMEs, EASME.

Still, funding opportunities can be found in other areas, depending on the nature of the project submitted, its scope and priorities, according to EU Commission guidelines.

Regardless of the sector, most opportunities come through so-called calls whereby applicants and project leaders are selected on a competitive basis to implement projects, usually co-financed by EU grants.

Grants are direct financial contributions from the EU budget and the European Development Fund. They are allocated in the form of a donation to the beneficiaries who meet set criteria.

Authorities responsible for the calls are the EU Commission, the Directorates-General and Executive Agencies attached to the Commission, the Delegations and Offices of the EU to third countries as well as the managing bodies of ERA-NET actions and ERA-NET management bodies. ERA-NET under Horizon 2020 is a funding instrument to support public-public partnerships in preparation, design and implementation, as well as coordination, of joint activities.

Those calls are either announced on the Official Journal of the European Union (OJEU) or on the NETWATCH portal; they provide genuine funding opportunities for European and international organisations.

The Eurofunding database assisting SMEs is provided by Welcomeurope, which lists all European Commission grants.

InnovFin is another programme that works alongside the EU's Horizon 2020 objectives, and its mission is to support research and innovation throughout the Region. Most of the financing in this programme is handled by the European Investment Bank and comes in several forms.

ADDITIONAL INFO

Marie Skłodowska-Curie Actions: Research Fellowship Programme

The Marie Skłodowska-Curie actions support researchers at all stages of their careers, regardless of age and nationality. Researchers working across all disciplines are eligible for funding. The MSCA also support cooperation between industry and academia and innovative training to enhance employability and career development.

Funding opportunities are available.

They are listed online (https://ec.europa.eu/research/mariecurieactions/actions/get-funding_en).

Much like COSME, the InnovFin equity programme offers support through equity capital provided to or alongside financial intermediaries investing in SMEs.

Creative Europe, meantime, is designed to support SMEs in the creative and cultural sectors. Companies in this sector represent around 4 % of the EU's GDP. Assistance provided by the Creative Europe initiative helps protect financial intermediaries from the risk involved in lending to SMEs in the creative and cultural sectors. Loans under the programme are earmarked for investments in both tangible and intangible assets.

The Jean Monnet activities support programmes that include modules, academic chairs, centres of excellence, networks, associations and projects. The European Youth Portal also provides information and opportunities for young people. Funding opportunities are available under Education and Culture section.

THE SINGLE ELECTRONIC DATA INTERCHANGE AREA

This is the entry point for participants and experts in funding programmes and tenders managed by the European Commission and other EU bodies.

Check it out here:

<https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/home>

Here you can:

- Search and apply for funding opportunities in calls for proposals
- Search a call for a tender and submit it
- Manage your grants
- Register as an expert, manage contracts and payments online

Participate in 5 easy steps:

1. Find an opportunity
2. Find partners
3. Create an account
4. Register your organisation
5. Submit your proposal

For more information check out:

https://ec.europa.eu/research/participants/docs/h2020-funding-guide/grants/applying-for-funding/find-a-call_en.htm

FIND A CALL

Horizon 2020 offers a large variety of funding opportunities. But there are also many other EU programmes, such as: 3rd Health Programme, Asylum, Migration and Integration Fund, Consumer Programme, Creative Europe, Erasmus+, European Maritime and Fisheries Fund, European Statistics, HERCULE III, Internal Security Fund Borders and Visa, Internal Security Fund Police, Justice Programme, Pilot Projects and Preparatory Actions, Programme for the Competitiveness of Enterprises and Small and Medium-sized Enterprises, Promotion of Agricultural Products, Research Fund for Coal & Steel, Rights, Equality and Citizenship Programme, Union Civil Protection Mechanism.

Links to these programmes are available here:

https://ec.europa.eu/research/participants/docs/h2020-funding-guide/grants/applying-for-funding/find-a-call_en.htm



Trends in research

What will top the research agenda for the coming years? [Angela Bellia](#), [Brian Cahill](#), [Hristo Svilenov](#), [Caitlyn Trevor](#), [Florence Villesèche](#) and [Yahaya Yabo](#) shared their predictions.

Angela Bellia



Former Chair of the Northern Italy Chapter
From Italy

I'm currently carrying out my research at the National Research Council in Italy. My Marie Skłodowska-Curie Actions (MSCA) Individual Fellowship (IF) - Reintegration Panel (RI) project involves the fields of archaeoacoustics and digital heritage in the area of social sciences and humanities.



UPCOMING TRENDS:

Artificial intelligence, climate change, digital economy, food and natural resources

How should these challenges be addressed? These research trends will require the involvement of the Social Sciences and Humanities (SSH).

“SSH research is essential in solving major societal challenges including ageing populations, food security, clean energy, smart transport and adaptation to climate change.”

What's the role of academia? It can play a central role in addressing today's global challenges and in helping to stimulate industrial and technological innovation. Universities should develop and manage these research trends.

What's next? It is necessary for academia to promote stronger human and societal approaches across the European programmes. Industry's short-term interests should not prevail over the benefits to European society.

Brian Cahill



**Former MCAA Chair and Former Chair of the German Chapter
From Ireland**

I was a Marie Curie Fellow within the Sixth and Seventh Framework Programme (FP6 & FP7) at the Institute for Bioprocessing and Analytical Measurement Techniques in Heilbad Heiligenstadt (Germany), where my projects focused on the application of microfluidics to bioprocess technology. I am now a member of the Governing Board of EuroScience.

UPCOMING TRENDS:

Research in data science & Open Science

How should these challenges be addressed? Graduates will need to present excellent communication skills.

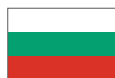
“Open Science will make the transferrable skills acquired by PhD graduates during their research more accessible.”

What’s the role of academia? Universities should strengthen their capacity to perform research in the field of data science.

What’s next? I believe that higher esteem for Open Science activities is very good for early-career researchers. For example, if all software code must be published as open source, early-career researchers will be expected (and trained) to write code properly rather than simply hacking out the code that barely fulfils its functions. That helps them to transition into data science careers after graduation.



Hristo Svilenov



From Bulgaria

After I graduated as a pharmacist in my home country, I did my PhD studies at the Ludwig Maximilian University of Munich as an Early Stage Researcher (ESR) in a Marie Skłodowska-Curie (MSCA) Innovative Training Network (ITN) called PIPPI. I have a two-year Fellowship from the Peter and Traudl Engelhorn Foundation to work on the engineering of new therapeutic proteins as a postdoctoral scientist at the Technical University of Munich.

UPCOMING TRENDS:

Healthcare and sustainable technologies

How should these challenges be addressed? Solving our problems in healthcare and sustainable technologies will require researchers with very interdisciplinary training and absolute dedication to make an impact with their work.

“We are on the doorstep of a new era for the humankind, in which we will gain full control of our bodies and be able to treat almost every disease.”

What’s the role of academia? Universities should strengthen their capacity to perform research in the field of data science.

How should these challenges be addressed? Academia should create a good and creative environment for young researchers so they can stay longer in universities and unveil their potential.

What’s next? I expect scientists to focus more on creating sustainable solutions to the current problems of our societies.



Caitlyn Trevor



From the USA

I am currently working at the Cognitive and Affective Neuroscience Laboratory at the University of Zurich in Switzerland researching music and fear.

UPCOMING TRENDS:

Advanced analysis to conduct research on music and the brain



How should these challenges be addressed? Conducting research on music and the brain will include using types of analysis such as Dynamic Causal Modeling and neurofeedback.

“Multidisciplinary teams will be key to solving some of the current, higher-level questions we have about music and the brain.”

What’s the role of academia? Academia should be prepared to offer coding, statistics, and neuroscience classes to graduate students with a liberal arts background who want to apply their skills to researching cognition.

What’s next? These research trends will require more training in statistical analyses, in programming to build these more complex experiment interfaces, and training in how to design these specialised experiments.

Florence Villesèche



From France and Switzerland

I received a Marie Curie Fellowship under the Seventh Framework Programme (FP7) for the project WOMBOARDNET to study the position of women in board of directors and other elite, knowledge-intensive teams, and to develop my skills in social network analysis. I am currently an associate professor in Diversity management at Copenhagen Business School and academic director of the Business in Society platform for Diversity and Difference.



UPCOMING TRENDS:

Diversity and inclusion in management

How should these challenges be addressed? This research will require more dialogue and collaborations between researchers with different methodological skills, for example, to see how to best study intersectionality with quantitative methods or how to develop generalisable models from case studies of inclusion policies.

“Researchers will have to be more reflexive on their own positionalities.”

What’s the role of academia? It is important for academia to acknowledge that a topic like diversity is not a sub-discipline in itself (like marketing, human resources or strategy) but that the topic intersects with all of these.

What’s next? I’ve just finished editing a book that should come out in 2020 in which authors discuss epistemology, researcher positionality as well as a range of methods to study organisational diversity.

Yahaya Yabo



From Nigeria

I am currently an early stage researcher at the NorLux Neuro-Oncology Laboratory, Luxembourg Institute of Health (LIH). My research project is part of the Horizon 2020 Innovative Training Network (ITN) programme GLIOTRAIN, a multi-sectoral industry-academia collaboration aiming to identify novel strategies to treat glioblastoma and investigate its resistance mechanisms.



UPCOMING TRENDS:

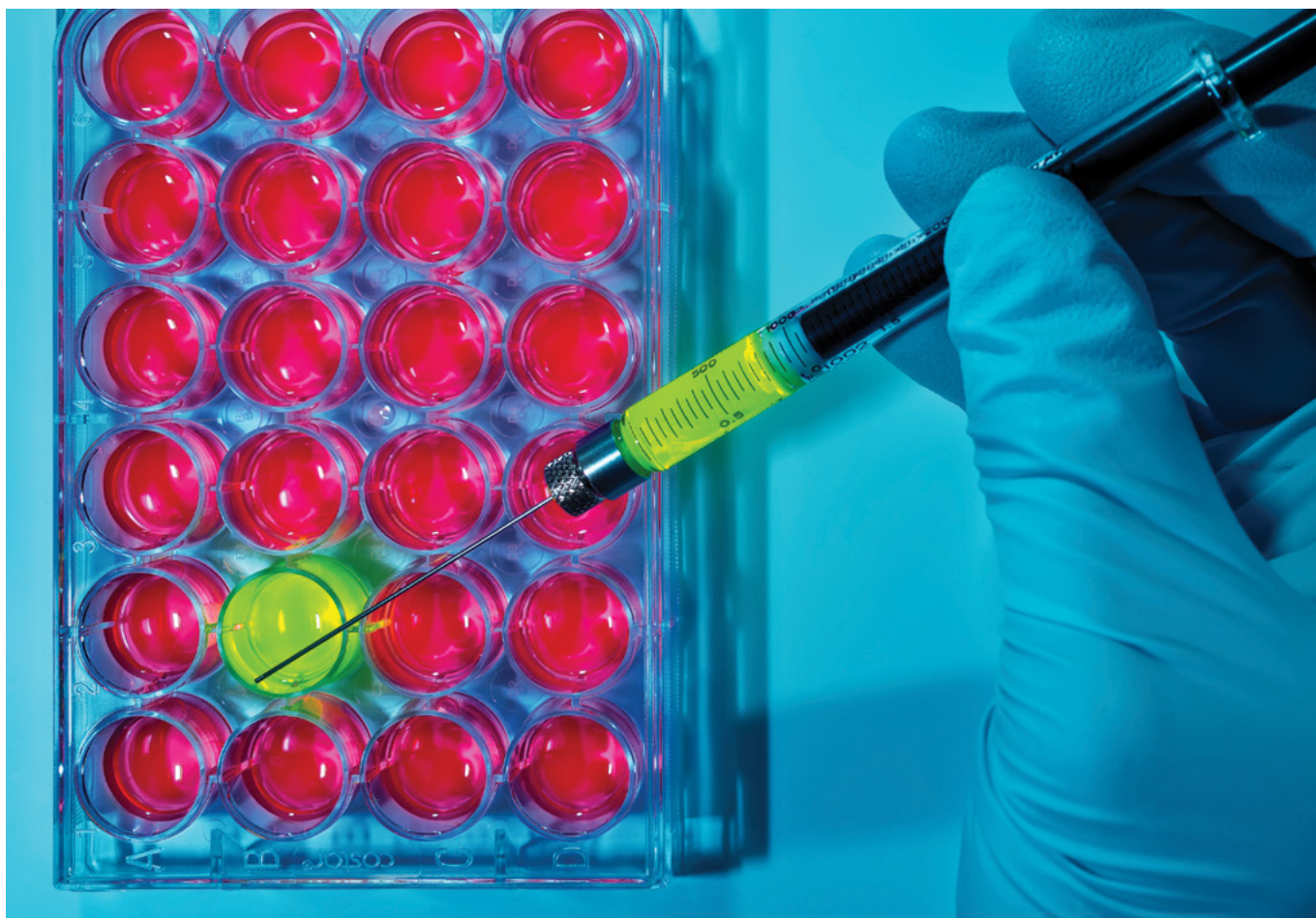
Computational modelling and single-cell sequencing in biomedical research

How should these challenges be addressed? Both trends require some level of skills in statistics, computational programming and data science.

“Computational modelling is vital because it complements experimental data.”

What’s the role of academia? Statistics, computational programming and data science should be taught to both undergraduate and graduate students as vital transferable skills.

What’s next? Computational modelling would be a trend and a necessity in almost all scientific fields.





Baden-Württemberg

The German Southwest.

Baden-Württemberg is one of the leading economic and research regions in Germany and Europe, characterised by its strength of innovation, cutting-edge inventions and high productivity. With more than 70 institutions of higher education and over 100 non-university research institutions and transfer centres, the research landscape in Germany's Southwest is outstanding. Whether basic or applied research – here you'll find both kinds being pursued on the highest level. Bridging the gap between fundamental as well as industrial research and development, our research institutions open up new fields of technology for industry and convert ideas into marketable products and processes. These interconnections of science and industry have made Baden-Württemberg one of the world's most successful regions.

The Number One - EU's top region for innovation

Innovative - 14,608 patent applications (2018)

Investment in the future - € 27.9 billion for R&D (2017)

Leading position - 39 out of 225 funded graduate schools in Germany are in Baden-Württemberg (2019)

Generously funded - Up to € 150,000 per Junior Professorship (competitive process)

RESEARCH FOCI

- artificial intelligence
- sustainable mobility
- energy
- Industry 4.0
- aerospace engineering
- medicine and medical technology
- green technology

Baden-Württemberg offers a wide range of highly promising employment opportunities. What makes the region so attractive is the large diversity of companies which also engage in intensive research - an excellent starting point for setting out on a highly successful academic career.

RESEARCH YOUR
FUTURE



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What's your app?

New year, new resolutions. Among them, the willingness to improve self-organisation is always on top. We caught up with [Wuraola Akande](#), [Valerie Bentivegna](#) and [Sahba Mobini](#) to ask them about their favourite applications.

Wuraola Akande



Former MCAA Communication Working Group Chair
and former Ordinary Board member
From Nigeria

I was a Marie Curie Fellow at the University of Brighton where I completed my PhD (2013) under the Seventh Framework Programme (FP7) Industry-Academia Partnerships and Pathways (IAPP) MONACO-EXTRA. Thereafter, I relocated to Nigeria and I am currently a lecturer at the Department of Clinical Pharmacy and Pharmacy Administration, Faculty of Pharmacy, University of Ibadan. My current research interests span pharmacotherapy, infectious diseases, antimicrobial resistance, medication use, and public health.



RESEARCHER: <https://www.researcher-app.com/>

What is it?

Researcher is an app that hosts a large database of essays, term papers and research papers.

Researcher displays the latest abstracts from your chosen journals. You can view the full text of the papers, if they are open access or if you log in via your institution.

“With Researcher, I can access research papers easily from my phone and laptop, including recent articles published in various journals in my field.”

Tip: Access to the journals is unlimited.



MENDELEY: <https://www.mendeley.com/>

What is it?

Mendeley is a free PDF reader specially designed for researchers and students. You can make your own searchable library, read documents, write notes and manage references.

Mendeley is also useful in managing references for manuscripts.

“Mendeley has been helpful in automatically formatting references for manuscripts. It helps save a lot of time.”

Tip: Collaboration with other researchers is possible within private groups.

Valerie Bentivegna



MCAA Communication Working Group
From Belgium

I am part of the Innovative Training Network (ITN) PHOQUS project and currently working in Seattle, as a science writer and informal educator, with various organisations, including writing science blogs, writing support for websites and grants. I also work at the local science museum.



SLACK: https://slack.com/intl/en-gr/?eu_nc=1

What is it?

Slack is a communication app that allows you to collaborate on projects by having discussions, share documents, set meetings etc.

I specifically like that you can organise it into “channels” which would be like different topics or taskforces depending on the application. I’ve used it both for MCAA Chair duties and within a work environment.



“Slack is useful because sometimes email chains get very long and convoluted and hard to follow!”

Tip: Since there’s a limited number of messages, it saves if you use the free version - so make backups! Also, there are useful add-on apps that help with scheduling and reminders.

Sahba Mobini



Chair of the Spain-Portugal Chapter
From Iran

I am a Marie Skłodowska-Curie actions (MSCA) Individual Fellowship (IF) postdoc at the Spanish National Research Council in Madrid. My project is about inducing neural plasticity after a stroke, by means of electrical stimulation. It is a multidisciplinary project that connects Engineering and Neuroscience. I am performing each part of this project in different institutes: Instituto de Micro y Nanotecnología (IMN-CSIC) (for engineering part), and Centro de Biología Molecular Severo Ochoa (CBMSO) (for the neuroscience part).



BEFOCUSED: <https://apps.apple.com/us/app/be-focused-focus-timer/id973130201>

What is it?

It’s a simple timer that breaks a task to 25-minute work sessions and 15-minutes break intervals.

This App works based on a method called ‘Pomodoro technique’ and aims to improve productivity. I use this very frequently, in particular when I want to perform a heavy task such as writing!

“I have written my recent successful grant using BeFocused!”

Tip: There are many similar timer apps based on the same technique. Just use the one which best suits your needs!

Meet GEDI – the MCAA Working Group that is helping to boost equality

MCAA's Genders, Equity, Diversity & Inclusion (GEDI) Working Group (WG) is making great strides in promoting equity, diversity, and inclusion in research beyond any individual characteristic. Magda Theodoridou, GEDI chair, tells us a bit about herself, the group's work and how members can get involved.

Magda Theodoridou, who holds a PhD in Conservation Science and a degree in Civil Engineering, is one of the founding members of the GEDI WG (formerly known as Gender Equality and Diversity for Mobile Researchers in Science) and has been chair since 2018.

She has worked as a research and teaching fellow in Cyprus, Italy, Hungary, and the UK and is currently a Marie Skłodowska-Curie fellow at Cardiff University, working on biological self-healing mechanisms for sustainable construction and heritage conservation. Introducing her role and the work of GEDI, Theodoridou notes: "I have dedicated myself to ensuring equality and diversity among scientists. I envision the dissemination of GEDI's work to the broader society and the engagement of more people to address equal opportunities in career development in research and science, as well as a healthy work-life balance."

A SPOTLIGHT ON GEDI

The WG was established in 2014 thanks to Giovanna Avellis' initiative. Over the years, it has moved its focus from enhancing the inclusion of women in research to promoting participation beyond any individual characteristic. "Among our primary goals is to investigate challenges and develop possible solutions to boost equity, diversity and inclusion at all stages of research career – from early stages towards leadership levels. Additionally, we want to ensure that MCAA itself, stands for and implements fair treatment of any underrepresented group in all our activities," confirms Theodoridou.

In line with their goals, GEDI has been busy organising a long list of events including conferences, workshops, seminars, webinars, surveys and mentoring programmes, exploiting new or building on existing collaborations with



other MCAA chapters, WGs, as well as groups with similar goals outside the MCAA.

“These events have covered various topics from diversity and inclusion in leadership for excellent research, how artificial intelligence, and robotics and bionics influence accessibility and inclusion to gender equity, diversity and mobility in Spanish research, European disability rights and the ResearchAbility (RA) Europe tour and much more,” emphasises Theodoridou. GEDI has also organised two conference sessions for the 7th MCAA General Assembly and Annual Conference in Zagreb, Croatia. They will cover Diversity & inclusion in leadership for Excellent Research beyond Horizon 2020 and how artificial intelligence, robotics and bionics influence accessibility and inclusion.

The chair further adds: “Our current and future activities aim at reaching a broader audience and engaging more people to participate, such as policymakers, in the debate for equal opportunities in career development and, as I previously said, healthier work-life balance.” Members can learn more about upcoming events on GEDI’s webpage: <https://www.mariecuriealumni.eu/groups/genders-equity-diversity-inclusion-gedi-former-gender-equality-and-diversity-mobile>

A CALL FOR ACTIVE MEMBERS

The GEDI WG is calling members to express their interest in actively participating in the following task forces of the WG:

1. Communication task force
2. Policy task force
3. Training, Empowerment and Leadership task force
4. Diversity and inclusivity task force
5. Projects task force

Members can express their interest at:

<https://forms.gle/V3DqY2btXTy3uiRF6>

They should briefly introduce themselves as well as how they would like to contribute to any part of the task forces.

“If your project fits in with our aims and task forces, you can also contact our board to become part of the GEDI WG just as the ResearchAbility team did when they decided to become part of GEDI’s diversity and inclusivity task force,” notes Theodoridou. “They too, are seeking people interested in accessibility, inclusion and disability rights as team members and mentors and for MCAA members with disabilities.”



Tiny robots may soon be finding jobs in our bodies

Miniature robotic components could revolutionise biomedicine if scientists can make them small enough while retaining fine features, responsiveness, and biocompatibility. A pioneering combination of materials and methods has met all these challenges and set new records for resolution of smart parts.



Three-dimensional (3D) printing, also called additive manufacturing, has its roots in the 1980s as a path to rapid and inexpensive prototyping of parts. The technique relies on application of materials in layers from the bottom-up using a precise 3D digital model. It is in stark contrast to the use of conventional moulds, like large and heavy cake pans that engineers designed and created individually for each component to be tested.

Fields from aerospace to biomedicine now use 3D printing for both prototyping and tailor-made products. Within the last decade, scientists have been using 3D printing to produce structures made from shape memory materials (SMMs). These smart materials respond to external stimuli such as a temperature change, a voltage, or a magnetic force by changing their shapes reversibly. Adding time to the three geometrical dimensions of 3D printing resulted in the term 4D printing, coined in 2013, and enables realisation of soft robotic components such as valves and actuators ⁽¹⁾.

Marie Skłodowska-Curie Action (MCSA) fellow Carmela De Marco set out to expand the frontiers of 4D printing for micro-robotics applications. Rather than stopping at a potential roadblock, De Marco's creativity went into overdrive. The result is pioneering science and a revolutionary new method for printing smart materials with minimum feature resolution 40-times smaller than what was previously possible.

A SACRIFICE WORTH MAKING

De Marco joined the Multi-Scale Robotics Lab at ETH Zurich in 2016 after winning the Marie Skłodowska-Curie Individual Fellowship with the project **microMAGNETOFLUIDICS: 3D-printed magnetic microfluidics for applications in life sciences**. At the time, resolution of microscale features limited 4D printing of smart materials. Two-photon polymerisation (2PP) supports high-resolution fabrication of 3D structures but it had not been widely used with shape memory polymers (SMPs).

De Marco decided to use 2PP to produce her magnetic microvalves. As she recalls, "I had to mix magnetic particles with SMPs and use 2PP to 3D-print these valves,

but the initial idea was not working. Sometimes problems are the real solution! So, instead of directly 3D-printing the SMPs, I thought ‘why not use an indirect approach?’”

Although 3D printing came about largely to get rid of the need for moulds, De Marco realised that a mould might be just what she needed to shape microscale gelatinous polymers that cannot be directly 3D-printed – but she needed a way to mould something very small and soft and remove the mould without damaging it.

De Marco used direct laser writing (DLW) to cut a sacrificial template into a micromould. She then filled the micromould with either a pure gelatine solution or a composite consisting of gelatine and 5 % magnetic nanoparticles. After the materials solidified overnight, De Marco dissolved the mould in a bath. In this ground-breaking work, she eliminated the need for functionalisation of the materials to facilitate processing, resulting in fully biocompatible products ⁽²⁾. As De Marco summarises, “We demonstrated an indirect 3D printing strategy to fabricate soft robotic structures at the microscale without having to functionalise gelatine with toxic photoreactive compounds.”

De Marco then turned to SMPs and a soft and pliable stent-like structure. She calls the pioneering technique used in this way ‘indirect 4D printing’, reflecting the combination of 4D printing and sacrificial templates. De Marco and her team used the method to produce stent-like microstructures with minimum features of 5 micrometres – 40-times smaller than that previously reported ⁽²⁾.

As De Marco explains, “The implementation of soft robotic microstents represents a step forward in applying microtechnologies to solve life-threatening conditions, for example in paediatric diseases such as congenital

obstructive uropathies.” In the future, De Marco’s tiny biocompatible stent could potentially be placed in the constricted urinary tract of a foetus in the womb.

EVOLVING IN TIME

De Marco’s original MSCA grant ended in 2018 but she is going strong thanks to an extension to her contract in the lab of Prof. Bradley Nelson at ETH. De Marco is now seeking funding for research grants and from commercial investors as she continues developing techniques related to her pioneering work while pursuing new avenues in minimally invasive surgery.

“The MCSA grant strengthened my position as a scientist and as a woman. I am really proud of it!” she says. De Marco was also initially denied entrance to the university as a woman. Many top universities are now discussing creating positions open specifically to women to address the continuing disproportionately low representation of female professors in STEM fields. De Marco suggests perhaps it is time for a MCSA fellowship specifically supporting female-led research and careers. Certainly, she has demonstrated the value of such an investment.

1. C. de Marco, S. Pané, B.J. Nelson, 4D printing and robotics. *Sci. Robot.* 3, eaau0449 (2018). [Science Robotics]

2. C. de Marco, C.C.J. Alcântara, S. Kim, F. Briatico, A. Kadioglu, G. de Bernardis, X. Chen, C. Marano, B.J. Nelson, S. Pané, Indirect 3D and 4D Printing of Soft Robotic Microstructures. *Adv. Mater. Technol.* 4, 1900332 (2019). [Advanced Materials Technologies]

Putting a spotlight on mobbing in research

Mobbing is a dire issue that not only affects a victim's physical and psychological health, it can also have a detrimental effect on their colleagues, friends, family and eventually society at large.

There are various definitions of mobbing. Heinz Leymann, a Swedish academic renowned for his pioneer work on the topic, describes it in his research paper [Mobbing and Psychological Terror at Workplaces](#). He defines mobbing as a psychological terror, where the victim is subjected to a systematic stigmatising through unethical and unfriendly methods by a group of people.

THE SEVERITY OF MOBBING

Researchers are among the professionals frequently exposed to workplace mobbing. This is how Brigita Krsnik Horvat and Milan Pagon describe the situation in [Attitudes](#)

[Toward Workplace Mobbing in Slovenian Research](#). In fact, their research highlighted that in Turkey, 90 % of academic respondents have spotted workplace mobbing while 17 % of them had been mobbed. Whereas in the UK, 85 % managers and 15 % of co-workers are mobbers.

A member of the MCAA Romania Chapter is keen to sound the alarm, drawing upon her own personal experience. "This phenomenon has reached high levels," says Roxana Radu. "From my experience, this is a gradually evolving process, in which abuses become more intense and frequent over time, leading to a dysfunctional workplace environment."



From personal experience, Radu describes the aggressive behaviour researchers are subjected to but not limited to as, “excessive workloads, persistent monitoring of work, aggression, insults and threats.”

As for the consequences, many are long-lasting, from social and psychological to psychosomatic, and economic ones. Mobbing can impact on physical and mental performance, health systems dealing with mental health issues, and cardiovascular diseases. It can also result with victims leaving an organisation. In fact, Horvat and Pagon's research show the costs of mobbing can extend to 1-3.5 % of a country's GDP.

A CLOSER LOOK AT ITS ROOT CAUSES

There have been many reported factors that contribute or allow mobbing in research. They stem from poor management, high stress levels to a low level of decision-making authority and weak moral principles. Research has also highlighted that a consequence of mobbing is a negative organisation culture whereby there is a close connection between culture and climate.

“From my experience, it is a problem resulting from mainly cultural characteristics as well as societal changes. Romania, for example, is a hierarchical society where age and position are highly respected,” Radu notes. “Therefore, when expressing one's own ideas and opinions in front of the superiors, care must be taken.”

Radu also points out that while culture should be taken into account when evaluating mobbing in research, it is difficult, if not impossible, to change. This is because changing the culture of a working environment means changing human behaviour, which is in most cases difficult.

“Many Romanian researchers, especially younger ones, for instance, believe that the abusive treatment they are subjected to, especially from superiors, is somehow ‘normal’,” she says. “This ‘normality’ comes from the fact that the country was under communist rules from 1948 until 1989, when people were taught to follow the directions of those ‘in charge’, without having the liberty of asking any questions.”

WHAT TO DO

There are a range of ways mobbing can be prevented/dealt with in research. These include having active policies in place for its prevention, informational and educational activities increasing awareness of mobbing, psychological support for victims and having an independent monitoring organisation.

Radu also advises victims not to resign straightaway. “This is the easiest way to disentangle the situation. Secondly, victims should seek help such as therapy sessions. The idea is to open communication bridges, otherwise victims feel isolated and disconnected from reality and community.” Radu suggests victims try to reconcile with their colleague/superior, as open and honest communication can do wonders, sometimes. In the event this does not work, victims should report the issue to human resources and the general manager of their institution.

CALL FOR MCAA MENTAL HEALTH MENTEES/MENTORS - REFERENT MENTORING INITIATIVE

If you are an early stage researcher facing issues of bullying or harassment, you can seek support from peers who have faced similar experiences by completing the [online form](#) on the MCAA website. If you are an experienced researcher who has faced similar issues in the workplace, why not become an MCAA mentor to early stage researchers experiencing distress during their first academic experiences? For information, go to the MCAA [website](#).

Partnering up to preserve mental health

Doing a PhD is difficult, by definition. And it can be a lonely struggle, particularly in an unfamiliar environment. A chance to connect with someone who remembers what it's like can help aspiring academics in distress, say the coordinators of the MCAA's mental health mentoring initiative REFERENT.

Currently implemented as a pilot scheme that will run until the end of the academic year, the new initiative has already matched a first group of mentees and mentors. As of December 2019, a dozen ESRs are benefiting from the support, say REFERENT coordinators Darragh McCashin and Stéphanie Gauttier — respectively, the leaders of the MCAA's Mental Health of Researchers and Responsible Research Environment taskforces.

Studies indicate that PhD students are at particular risk of psychological distress, McCashin notes. Working towards a PhD is a daunting task in itself, Gauttier underlines, and it's not uncommon for research students to doubt their abilities. The interaction with their professors can be trying as well, and for ESRs on the move, the huge advantages of mobility may come at a cost, she points out: An unfamiliar country and culture can add another layer of complexity, particularly if there is a language barrier.

A distorted view of the expectations may be making matters worse. "Some Marie Curie ESRs think they have to do something even more amazing than a 'usual' PhD, but of course that's not how it works," Gauttier comments.

PEER POWER

"The prevalence of mental health problems is clear," McCashin observes. "While there is no way to fix this overnight, there are steps that can be taken today and tomorrow. REFERENT was born with the motivation to do something straight away."

It was shaped by the idea that the insight available in the MCAA environment could be leveraged to support ESRs' psychological wellbeing, he explains. REFERENT mentors are experienced researchers who have faced issues such as depression or bullying in their work, and who volunteer to accompany members of the community whose careers are only just beginning.



LET'S TALK

"REFERENT is not a setting where someone will tell you what to do," Gauttier emphasises. "A mentor's first and foremost role is to listen, providing mentees with space and pause to express their thoughts and explore possible solutions themselves," McCashin notes. Advice on specific aspects to consider may be offered in a second step.

As the matchmaking and training phases have been completed, the REFERENT team is taking a step back for the moment. Gauttier and McCashin intend



to contact mentors and mentees every few months, to check on progress and gather feedback on the approach in view of roll-out on a larger scale after the summer. The prospective next edition of the initiative will also be open to postdocs, says Gauttier, adding that these ESRs are under just as much pressure as PhD students, albeit for different reasons.

“We know that there is a need for this type of programme, but we still have to work out how best to organise it,” says Gauttier. There are a lot of assumptions to review, notably regarding the way mentors and mentees are matched, she remarks. By country, by discipline, by institution? And what else may be needed in the way of training, to best equip mentors for their role or help mentees feel more at ease?

The outcomes of the pilot phase should provide some indication, but the concept itself is well established, says McCashin. “It’s a very cost-effective and scalable way to leverage life experience for younger members,” he notes. “There was a talk about mentoring in the professional career sense at the General Assembly earlier this year, and it occurred to us that we could blend the mentoring approach with the mental health space.”

While REFERENT is not intended as an alternative to any specialised treatment that may be needed, McCashin points out that it could be a way to nip emerging mental health issues in the bud. After all, a problem shared is a problem halved.

For more information, check out
<https://www.mariecuriealumni.eu/referent-mentoring-initiative-msca-early-career-researchers>

iNavigate: brain-inspired solutions for intelligent navigation and robotic mobility

Machines already outperform human intelligence in certain tasks, like playing chess. The iNavigate project aims to take intelligent navigation to the next level. Meet the project's coordinator Tansu Celikel.

Tansu, in his own words

I am originally from Turkey. I received my PhD in Systems Neuroscience from the Scuola Internazionale Superiore di Studi Avanzati (SISSA, Italy) in 2001. After postdoctoral research at the University of California, San Diego (USA) and the Max-Planck Institute for Medical Research (Heidelberg-Germany), I started my first laboratory at the University of Southern California, Los Angeles (USA) in 2008. Since 2012, I have been with the Donders Institute for Brain, Cognition, and Behavior at the Radboud University in the Netherlands, where I am a professor and the Founding Chair of the Department of Neurophysiology, and the Founding Director of the binational (Dutch/German) Graduate School of Bionics. At the Donders Institute, I led the Neurotechnology and Neural Computation research theme between 2016-2019. I am currently the Chair of the Donders Institute.



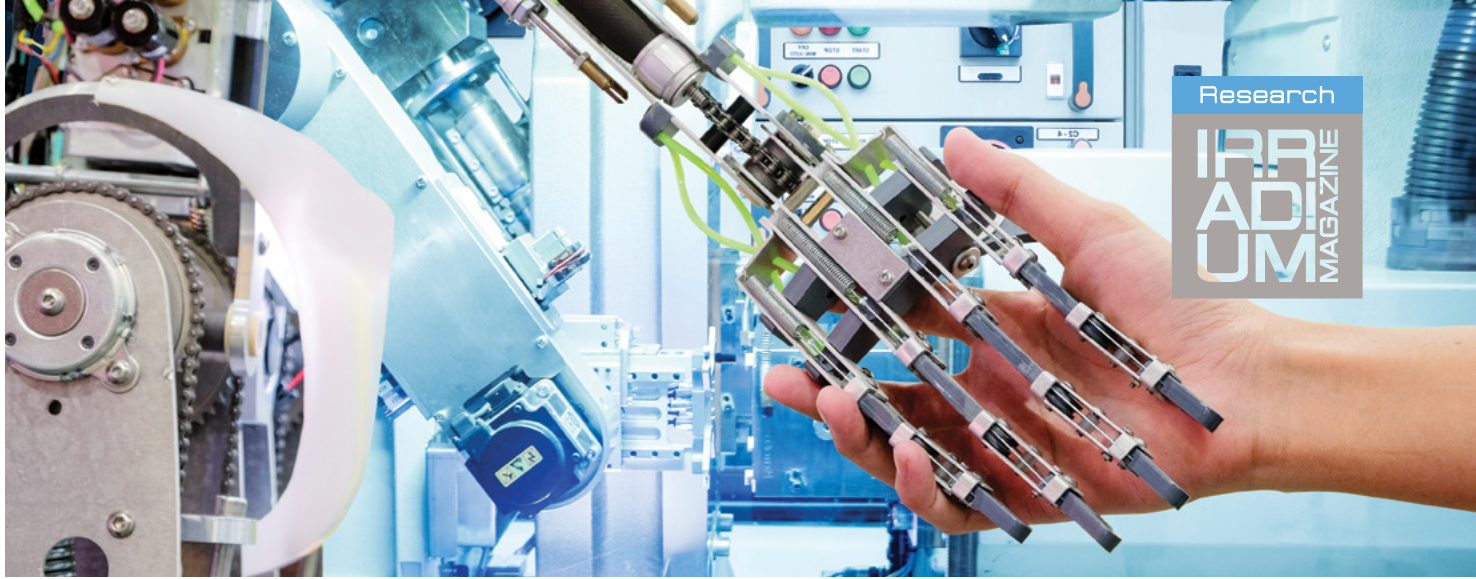
iNAVIGATE'S MISSION

What's the difference between a robot and a human brain when it comes to navigation?

According to the iNavigate project, which was funded through the Marie Skłodowska-Curie Research and Innovation Staff Exchange (RISE), it is the robots' inability to generate motor control when sensory information is incomplete, noisy or otherwise unreliable, a problem animal brains skilfully solve. "The brain solves this problem via sensory fusion and inference to create abstract representations of

its environment," explains the project's coordinator, Tansu Celikel. "In this way, it can create contextual information from high-dimensional input with limited computational cost."

In this scope, the iNavigate consortium aims to develop a mechanistic (and actionable) definition of how the brain generates action using a set of elementary instructions and translate this knowledge into novel technological solutions to control robotic mobility. To achieve these goals, the consortium will observe the brain in action as fish, rodents and humans navigate their environments. Researchers will subsequently formalise the brain's computations using



methods borrowed from (statistical) mechanics, physics, machine learning and artificial intelligence. They will finally deploy the computations of the brain in various hardware platforms to provide adaptive, robust and autonomous mobility to robots.

iNavigate brings together scientists and engineers from academia, enterprises and NGOs, representing 10 countries. The partners of the consortium come from all four corners of Europe, including but not limited to: Radboud University (the Netherlands), Norwegian University of Science and Technology (Norway), Max Plank Institute for Brain research and for Ornithology (Germany), University of Craiova (Romania) and Bogazici University (Turkey), the Foundation for Research and Technology (Greece), Centre National de la recherche Scientifique (France), Sorbonne University (France), University of Manchester (UK), and Ghent University (Belgium).

With a EUR 1 932 000 budget, the project will explore brain-inspired technologies for a period of four years (1 December 2019 to 30 November 2023).

ACTIVITIES

iNavigate officially kicked off on 6 and 7 February 2020 in Nijmegen (the Netherlands). A special event included research presentations from partners, match-making events, meetings of the management committees and a symposium open to the public.

Some activities already took place, as Celikel notes. iNavigate joined the coordinators of the other MSCA RISE Actions granted in 2019 at the Coordinators' Day which took place on 16 and 17 January 2020 in Brussels. The consortium has already started distributing computational tools and big databases to study the principles of navigation, for the time being in rodents.

The diversity of partners is expected to be a factor of excellence in the iNavigate project. However, coordinating stakeholders coming from different sectors can be challenging.

"The time passes at different speeds in the academy and industry," Celikel says. "Industrial partners are more dynamic. Therefore, creating synergy across academy and industry requires finding a balance between short-term deliverables and adapting our long-term goals to the changes in our ecosystem."

Celikel is confident that iNavigate will fulfil its mission. He was pleased to announce that the iNavigate researchers has already won a new European Training Network (ETN) training grant and joined the NeurotechEU Alliance. "I believe our consortium has a great chance to translate the biological insight into smart control algorithms for mobility and robotic control" he concludes.

More information about the project:
<https://www.inavigate.eu/>
<https://cordis.europa.eu/project/rcn/226071/fact-sheet/en>

A closer look at media accessibility



The European Union's motto is "United in diversity". Its significance is just as important today as when it was coined 20 years ago. It denotes how Europeans have come together – in the form of the EU – to work for peace and prosperity.

Creating a community by embracing the diversity of its members is the crux of the European project. It involves fostering reciprocal understanding, inclusion, and equitable opportunities for all. One of the keywords to successfully reach these goals is accessibility.

But what does accessibility really entail? According to Gian Maria Greco, accessibility has long been addressed as an "afterthought" with no involvement of the users, and sometimes of the experts as well. "It is like trying to add carrots into an already baked cake to make it into a carrot cake. In order to have a proper carrot cake, the only way is to add the carrots at the very beginning of the recipe, together with all the other ingredients," he writes in an [article](#) for a special issue on The Social Value of European Research on Media Accessibility published by the EuroScientist.

Greco knows the topic well. He is a Marie Skłodowska-Curie Individual Fellow at the Autonomous University of Barcelona (Spain), where he carries out the MSCA project Understanding Media Accessibility Quality ([UMAQ](#)). His research focuses on the theoretical foundation and social implications of Accessibility Studies, a new interdisciplinary field which he helped found, even coining its very name.

One of the most thriving areas of Accessibility Studies is called Media Accessibility. Initially, this area was framed as

concerning exclusively persons with disabilities. Over the past years, the scope of Media Accessibility has broadened first to include other groups at risk of cultural and social exclusion, such as the elderly, children and language minorities, and then extended to all people. Nowadays, following a widely accepted definition developed by Greco, Media Accessibility is identified as the research area dealing with "access to media and non-media objects, services and environments through media solutions, for any person who cannot or would not be able to, either partially or completely, access them in their original form."³ Accessibility is thus framed as an instrument for achieving human rights for all.

"The effects of the information societies will increasingly make Media Accessibility, and Accessibility Studies in general, evermore crucial research areas," Greco notes.

Over the past few years, the European Commission has approved a long list of directives and regulations focused on accessibility, what Greco calls "the accessibility turn in European Policies." However, the vast majority of EU funding calls still does not include accessibility as a requisite. What this means is that the EU risks investing resources in the development of technologies, products and services that are not accessible. This risk makes it all the more necessary for European actors, primarily the European Commission, to make accessibility a structural requisite in all its funding programmes.

According to Greco, the accessibility turn of European policies represents a significant step towards an inclusive society. "Yet, in order for it to truly take shape to become effective, one further, decisive step is needed: to promote the adoption of universalist, user-centred and proactive approaches in all EU funding programmes," he writes.

As such, ensuring accessibility should become a central concern in European funding to encourage the development of technologies and solutions that will respond to the specific needs of all European citizens. The aim is to provide them with equitable opportunities, and let them build unity through embracing each other's diversity. "Accessibility will thus serve to further consolidate the European project and make Europe a community where no member is left behind," concludes Greco.

3. Greco, G. M. (2019). Towards a pedagogy of accessibility: The need for critical learning spaces in media accessibility education and training. *Linguistica Antverpiensia*, 18, 23–46.

The case for making research accessible

MCAA

IRR
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MAGAZINE

Making your research accessible is necessary to ensure it can be easily found. It's just as important to make sure it's easily understood by your target audience.

As such, the term "accessibility" is widely used to refer to the availability of research and to its usability. This is more than being able to find research online or to get a copy of an article. It's also about the communication of the research. This dimension has to do with the language used and the importance of keeping in mind the target audience and the "users" of the research.

HOW RESEARCH IS SHARED

Open access to scientific publications is a general principle of Horizon 2020. It's a top priority for the European Commission. In fact, Brussels has also called on the Member States to take a similar approach to the results of research funded under their own domestic programmes.

Promoting the culture of sharing by providing an open access to research data is important. This includes experimental results, observations and computer-generated information. Also important is the development and support of e-infrastructure to host and share scientific information (publications and data).

The EU uses the **Fair** principles to make research data more findable, accessible, interoperable and reusable. The four basics of FAIR are: Findable, Accessible, Interoperable and Reusable.



Findable

Discoverable with metadata, identifiable and locatable by means of a standard identification mechanism.



Accessible

Always available and obtainable; even if the data is restricted, the metadata is open.



Interoperable

Both syntactically parseable and semantically understandable, allowing data exchange and reuse between researchers, institutions, organisations or countries.



Reusable

Sufficiently described and shared with the least restrictive licences, allowing the widest reuse possible and the least cumbersome integration with other data sources.



MCAA Chapters

The MCAA has promoted the creation of Chapters in different geographic regions as a way of facilitating communication with its members and engaging them in the development of the Association.



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INSTRUCTIONS FOR SUBMISSION

We welcome articles on any activity related to MCAA.

However, differently than the MCAA Newsletter, articles for IRRADIUM should not merely present a project, an event or an activity, but heavily discuss it within a broader context, like European policies or research strategies

Articles should be max 750 words, written in a clear, lay language, and possibly provide one or two images (copyright-free and high definition).

IRRADIUM is published once a year, around February-March. Articles for the next issue should be sent by 15 November to news@mariecuriealumni.eu.

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