Issue 28 - September 2021

Marie Curie Alumni Association

Newsletter

Special Focus: EU Green Deal

Meet the Chair of the MCAA African Chapter

The 5 Ws and 6 Cs for a better communication strategy

ISSN 2663-9483

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Editorial

Leaving no one behind: The need for an inclusive EU Green Deal

In 1968, Hardin published an influential article in which he discusses a family of problems he labelled 'the tragedy of the commons' (TC). One of the cases analysed by Hardin is pollution, a TC based on a sort of reverse mechanism: "The rational man finds that his share of the cost of the wastes he discharges into the commons is less than the cost of purifying his wastes before releasing them" (p. 1245). The individual share of the costs of, say, reducing gas emissions, outweighs the gain (e.g. less polluted air), which is redistributed among all the other actors. Consequently, each agent would tend to act selfishly and eschew environmentally-friendly behaviour.

Since Hardin's article, the TC has become a cornerstone and one of the major challenges in human ecology, environmental economics, and sustainability studies (Falk et al. 2020). Its influence has expanded into the most wide-ranging areas, including digital goods and research on how digital resources can be overexploited and digital environments polluted (Greco and Floridi 2004). The debate around the problem and its solutions has usually revolved around two groups: either the market or the government. Hardin's controversial solutions fall within both groups, namely, privatisation and government regulation, jointly tied under the claim of 'mutual coercion mutually agreed upon.'

In 2009, Elinor Ostrom was awarded the Nobel Prize for Economics "for her analysis of economic governance, especially the commons. [She] challenged the conventional wisdom by demonstrating how local property can be successfully managed by local commons without any regulation by central authorities or privatisation," as the official prize motivation reads. Over decades of theoretical and field work, Ostrom and her colleagues revised the problem substantially, reframed the question in terms of common pool resources, showed that the dichotomy between the market and the government is too simplistic, and highlighted a third way: the community (Ostrom 2012). That very same year Ostrom released a background paper for the World Bank's 'World Development Report 2010: Development in a Changing Climate' (Ostrom 2009). Against the "presumption that

only [the global] scale is relevant" (p. 5) when dealing with global problems such as climate change, she made use of the work of Vincent Ostrom et al. (1961) on polycentrism and public governance and suggested a polycentric approach for dealing with climate change. In line with Hardin's classical framing of the problem, traditional solutions to climate change have often revolved around free market self-regulatory mechanisms, market-based incentives to control environmental problems, and monocentric hierarchical regulations and policies. On the contrary, in Ostrom's polycentric approach, climate change is a multiscale and multistakeholder problem that should be addressed through the concurrence of actions taking place at multiple scales and actively involve all the different actors. Actions range from fostering regulations at different scales to promoting technological innovation. But, congruent with her research vision, emphasis is also placed on individuals, communities and a radical change of mindset: "to solve climate change in the long run, the day-to-day activities of individuals, families, firms, communities, and governments at multiple levels [...] will need to change substantially" (p. 4).

The EU Green Deal is an unprecedented and much needed international effort to address the problem of climate change. Its ambitious plan echoes Ostrom's polycentric approach. Just consider the promotion of its implementation trough Local Green Deals. Nonetheless, there are limitations as well as avenues for improvement, and this is where a diverse community like the Marie Curie Alumni Association (MCAA) can make a significant contribution. Looking at the main text of the EU Green Deal and the related documents, it is patent how much faith is placed in regulations, science, and technology. All elements present in Ostrom's approach. However, other elements are underestimated, in particular, the role of communities and the importance of changing one's mindset. A quick reference to two cases may be of help in highlighting this point: firstly, culture and secondly, the inclusion of persons with disabilities.

The text of the EU Green Deal document reads: "the Horizon Europe programme will also involve local communities in working towards a more sustainable future, in initiatives that seek to combine societal pull and technology push." Central and local regulations, scientific discoveries and technological innovation are all strategic elements, but in order to reach the societal pull the document speaks about we need to make use of the entire toolbox of human knowledge. This means being clear on the crucial role that social sciences and humanities can have in the process.


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Archaeology, history, psychology, political science, and the arts – just to name a few areas – are fundamental instruments with which to investigate successes and failures, to redesign society, and to develop a sense of shared ownership of the environment and thus a sense of responsibility and accountability. As highlighted in a position paper entitled 'Culture's contribution to the European Green Deal' published by Culture Action Europe, culture is not only a major economic sector that will be invested by the regulatory changes brought about by the EU Green Deal, but it is also a venue for the analysis and promotion of environmentally-friendly thinking and sensibilities. Eurostat figures place cultural and creative industries "among the continent's most dynamic sectors [employing] 8.7 million people in the EU." The relevance of the cultural and creative sectors is but one example of the many facets where the humanities and social sciences are essential for the success of the EU Green Deal.

In line with the very spirit of the project of a European community, one of the guiding principles of the EU Green Deal is 'to leave no one behind.' Once more, a look at the official documents shows how this principle in mainly interpreted in terms of attention to European economies that are centred on fossil fuels, which will be supported through specific procedures like the Just Transition Mechanism. However, a 2020 position paper published by the European Disability Forum highlights that 'leaving no one behind' should also refer to the 100 million European citizens with disabilities. The document calls for attention to be paid to the ways in which the EU Green Deal will impact their lives, from accessibility of the built environment to inclusive sustainable mobility, from inclusive planning to participatory processes in the implementation of the programme(s).

The ones above are a few aspects where the EU Green Deal can be improved. They also exemplify cases where the MCAA – both as a community and as an organisation – can provide a strategic input for the common good. The richness of voices, cultures and expertise of the MCAA make it an ideal candidate to serve as an interlocutor that could fruitfully contribute to the process. This means calling upon and involving all of its members, including those from the social sciences and the humanities, as well as joining in efforts with organisations like Culture Action Europe and the European Disability Forum.

Gian Maria Greco
MCAA Newsletter Editor-in-Chief
gianmaria.greco@poiesis.it

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Message from the Board

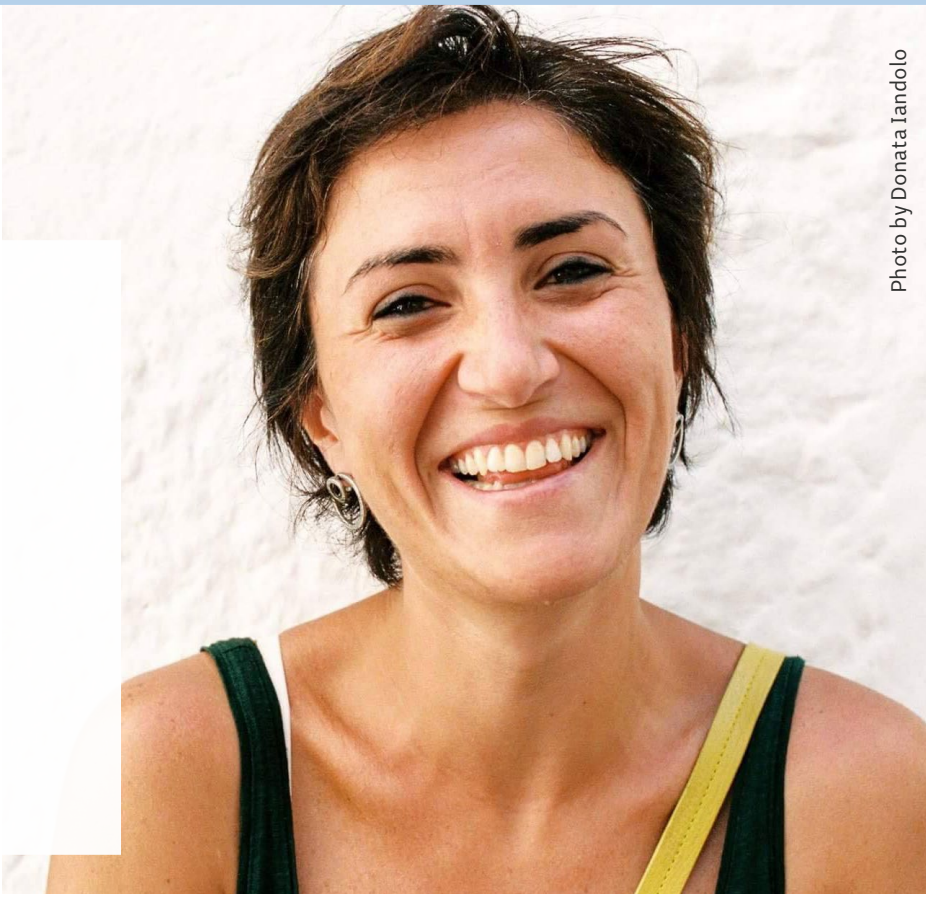

Photo by Donata Iandolo

Towards a more sustainable (academic) year

Dear Members,

I hope you had a relaxing summer break.

This issue of the newsletter focuses on the theme of the EU Green Deal and its ambitious aim to make Europe the world's first climate-neutral continent by 2050. Given the latest news on how our countries are being hit by the consequences of global warming, we clearly see the importance of the new measures to change the course of events for the present and future generations. A new engagement is necessary at every level of our life, but more relevant for this community, it is important to focus on the research that can be undertaken to achieve the objectives of the EU Green Deal. The MCAA is committed to fulfilling the Green Deal requirements; our last physical event in 2019 in Vienna was an eco-friendly event. In our new published guideline for the event organisation, we encourage chapters to organise sustainable events following local regulations. MCAA Board Member Alexandra Dubini gave a keynote talk at the MSCA cluster event on the Green Deal in July, where she focused on gaining momentum to act: "It's time to advocate our strength more, our skills, and our involvement in creating a better world. We need to show how deeply we are engaged and dedicated to serving society, especially when it comes to climate change. With the Green Deal we have an opportunity as scientists to reclaim our role in society need to gain even more momentum to act for the future."

Another utterly important point we would like to highlight is our commitment borne by the Scholars at Risk network to support people from Afghanistan facing these extremely delicate and critical times. We have signed the petition "Urgent appeal to European Governments and EU Institutions: Take Action for Afghanistan's scholars, researchers, and civil society actors".

On more daily terms, the new EU-sponsored contract is now running and the activities will slowly resume their normal pace. In the

coming weeks we will announce the dates of our annual flagship event, the MCAA Annual Conference. Follow us on social media or subscribe to our mailing list to receive monthly updates.

We are happy to announce that the application of the MCAA to become an affiliated member of the International Science Council (ISC) has been approved and we are eager to join and collaborate with such an active and important non-governmental association.

We also joined the European Union Science Diplomacy Alliance and we looking forward to working together in the frame of Science Diplomacy within the EU to support, research, and teach European Union Science, Technology, and Innovation Diplomacy.

Being part of this network can give us opportunities to have a large impact via information exchange and awareness raising, training, educational and institutional capacity building, promoting and creating knowledge exchange and interaction opportunities. Connecting and nurturing a science, technology and innovation diplomacy community will also be possible, keeping track of European Union Science Diplomacy activities, and, finally, advising Science Diplomacy stakeholders.

This new role adds to the place that the MCAA already occupies in the European Science Policy landscape. The MCAA, in fact, is part of several stakeholder consultation workshops organised by the European Commission regarding the future of ERA. Mostafa Shawrav, Karen Stroobants, and Alexandra Dubini joined those consultation meetings and provided feedback from the MCAA.

Many of our activities this year have been focusing on creating career development opportunities for our members. We therefore want to remind those of you who haven't done it yet to take advantage of the resources available through LinkedIn, accessible until November. This service is open to both MCAA members (for more info, members can check the bulk email they have received) and the general public.

And more exciting opportunities are on the horizon: stay tuned for more information on further opportunities for career development and mentoring!

After this streak of exciting news, unfortunately we need to communicate a sad one: due to personal reasons, Francesco Sanna has resigned from his position as Treasurer of the MCAA Board. The Board takes this opportunity to thank him for all the work and time he has committed to the Association. The MCAA lives and thrives thanks to the effort that volunteers generously offer to the Association. MCAA Board Member Esther Hegel will perform the Treasurer role until the next General Assembly. We are therefore looking into a strategy that will allow us a smooth transition with respect to the rules of the Association. Along the same line, we are going through the process to renew Chapters and Working Groups' Chairs. We want to thank everyone for their active participation in these activities as members or candidates.

Overall, this year has been pretty intense for all of us, but many important steps have been taken to improve our conditions, also learning from the current pandemic and the lessons it has brought. We are getting ready to start a new (academic) year with the same passion and commitment and with a vision to help support each other towards the creation of an ecosystem that is more sustainable from an environmental as well as a professional point of view.

Donata Iandolo
On behalf of the MCAA Board
dota.iandolo@gmail.com

Special Focus:
EU Green Deal

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Fit for 55: The EU presents the Green Deal's measures

On 14 July 2021, the European Commission adopted a package of proposals to reduce net greenhouse gas emissions by at least 55 % by 2030, compared to the 1990 levels. Called Fit for 55, this package sets out ambitious measures to make Europe the first climate-neutral continent by 2050.

"Europe is now the very first continent that presents a comprehensive architecture to meet our climate ambitions," said Ursula von der Leyen, President of the European Commission, when announcing the proposals of the EU Green Deal.

The Fit for 55 package consists of a set of proposals in diverse sectors such as climate, energy, transport, buildings, land use and forestry.

A socially fair transition

To enhance equity amongst European citizens, the Fit for 55 package foresees the creation of a new Social Climate Fund. As increases of fossil fuel price are expected during the transition towards a carbon-neutral economic system, the Social Climate Fund will mitigate the costs to help the citizens most exposed to those increases.

The fund will provide EUR 72.2 billion between 2025 and 2032 in the EU budget from the new Emissions Trading System. An evaluation of its efficiency is planned in 2028.

A competitive transition

To ensure a transition towards climate neutrality, the package plans to strengthen the EU Emissions Trading System and to apply it to new sectors, like aviation, the maritime sector, road transport, and buildings.

The Commission also proposes a Carbon Border Adjustment Mechanism that will put a price on imports of a limited number of high-polluting goods based on their carbon content.

What's more, cleaner vehicles and fuels are part of four proposals that aim to reduce greenhouse gas emissions. In this scope, the Alternative Fuels Infrastructure Regulation will ensure that electric vehicles will have the necessary infrastructure to recharge their batteries and to refuel.

In terms of energy, the updated Renewable Energy Directive proposes to increase the target from the current 32 % to a new level of 40 % of renewables in the EU energy mix. The Energy Efficiency Directive will also be revised.

A green transition

The package emphasises the importance of increasing the capacity of the EU's forests, soils, and oceans to act as carbon sinks and stocks. The new proposal therefore looks to reverse the current trend of diminishing CO_2 removals and to increase the quality and quantity of the EU's forests and other natural carbon sinks. In 2030, the Commission will assess the progress made towards this objective.

In addition, the package presents measures that aim to strengthen sustainability criteria for bioenergy, by extending their scope of application and by enlarging no-go areas for sourcing.

The new EU Forest Strategy as well as the forthcoming new EU Soil Strategy, EU Nature Restoration Law, and Carbon Farming Initiative will also strengthen the EU's natural carbon sinks.

The EU's commitment

Even if the EU accounts for 8 % of global CO_2 emissions, the EU recognises its responsibility for a higher share of cumulative emissions. Therefore, the EU is committed to lead a path towards a green, competitive, inclusive, circular economy.

President von der Leyen highlights: "Europe has always been the continent of scientists and innovators. We cannot always compete with the sheer size of our competitors, or, for example, the amount of natural resources they have. But we can rely on the most precious renewable resource in the world – and this is our ideas, our ingenuity, our innovative power of our people."

Aurélia Chaise
MCAA Editorial Team

More information

A European Green Deal

Communication - 'Fit for 55': delivering the EU's 2030 Climate Target on the way to climate neutrality

Press release - European Green Deal: Commission proposes transformation of EU economy and society to meet climate ambitions

Statement by President von der Leyen on delivering the European Green Deal

Special Focus:
EU Green Deal

Scientific leadership towards a sustainable future


Photo by Alexandra Dubini

Alexandra Dubini, MCAA Board member, was invited as a speaker at the MSCA European Green Deal Cluster Event that took place between 6 and 7 July 2021. You can read the powerful speech she gave in front of a digital audience.

Hi everyone, thank you for being here and thank you to the organisers for inviting me to this event. I am extremely happy to be a representative for scientists in general and, in particular, MSCA Fellows and Marie Curie Alumni Association.

I have called this talk 'scientific leadership towards a sustainable future' because I think it's time for us scientists to reclaim our position and role in society especially after what we have experienced with COVID. What I mean by that is we have seen science being discussed by non-scientists, by non-experts; it has been communicated in such a basic way that it has lost the essence of science itself and what it means.

It's time to advocate our strength more, our skills, and our involvement in creating a better world. We need to show how deeply we are engaged and dedicated to serving society, especially when it comes to climate change.

I am going to invite you into my journey in science, how I ended up working in the renewable energy field, what we need to do to implement the Green Deal

I started my career as a scientist in 2001 as a PhD student in the UK and for me it was the beginning of the adventure. I decided to study hydrogen metabolism in microorganisms because my supervisor at the time told me that eventually we would use H_2 in cars. His explanation convinced me that thanks to science, and potentially my work, one day we might have an alternative fuel. I must say that at the time, I did not have such a sense of urgency about climate change per se but I knew that H_2 was important. Why? Because it's the only renewable source of energy

that does not release CO_2 in the atmosphere and is 100 % clean. So I was excited to start working in this new field at the same time as developing molecular biology and biochemistry skills.

After my PhD I had the option of going back to France (my country of origin) or going to the USA, which, at that time was recognised as the best place to do state-of-the-art science. I must say that China is now a great competitor to the US and I cannot stop thinking why it is not Europe instead. As a child of the European Union, I had already lived through one of the now most famous programmes of the European Commission, the Erasmus programme, which in 1998 took me to the UK. So I knew about expatriation, I had learned English, and I wanted to further expand my skills and develop my own research.

Next, I joined the National Renewable Energy Laboratory (NREL) in Colorado, in the US. This is one of the 17 national labs funded by the DOE, Department of Energy, and the only one entirely dedicated to renewable energy for the last 40 years. NREL is one of the references worldwide in this field and this is why I developed a great interest in renewable energies in general and of course H_2.

There I did a postdoc of 2 years and was subsequently hired as a permanent scientist, thanks to a grant that I co-wrote with Maria Ghirardi, the manager at the time, and was awarded by the Biological Environmental Research (BER) department of the DOE that had decided to fund research on hydrogen. So here I was, a young women scientist starting my own research within our lab, creating my own team, meeting with the programmes managers in Washington, so it was a bit

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overwhelming but that would have not been possible without the help and support of Ghirardi. She was a great mentor, and helped me develop resilience.

Our research was fully dedicated to the understanding of how green algae produces hydrogen and also how to commercialise it. So in our lab there was a perfect mix of fundamental and applied research. There, I had many opportunities to work on innovative research. We collaborated for example with Shell the petroleum company searching for algae strains producing high levels of hydrogen. I also collaborated with NASA and sent green algae producing hydrogen into space. I was also able to diversify my research by investigating biofuels for biodiesel application for example. So NREL 'was' or 'is' the perfect interface between universities, private industry, and other organisations or any type of institution.

Going back to the second stage of my scientific career after 10 years in the United States, I was considering going back to Europe for family reasons, contemplating different options, but it is always difficult to leave everything behind and start somewhere new without knowing what to expect really.

I wrote a project to work in France and benefited from an MSCA COFUND Fellowship. This allowed me to work and develop collaborative relationships there. It really helped me start to reconnect with the European science landscape. But as life would have it, my husband got a tenured position in Spain and thanks to another MSCA COFUND action, I was able to join him at the University of Cordoba. So those two MSCA Fellowships gave me the opportunity to return to Europe in a more secure way. I felt that there was a mechanism to support scientists. In both countries I had the freedom to develop my own investigation and had fruitful collaboration with the host lab. I learnt from them and I shared my own expertise and knowledge. So it was a win-win situation. I would say that those MSCA Fellowships were essential in my career to return and settle down in Europe. In the end, I wrote an ERA-NET project. This allowed me to secure my own research within the university. Today, I am a distinguished researcher at the University of Cordoba. Unfortunately many of my colleagues along the way did not get a permanent position and even less so women scientists, so this is really something that needs to be improved in Europe; we need investment in the whole EUROPE and more permanent jobs, not just tenured positions in academia but also in other public institutions, in policy, in government and industry that will help implement the Green Deal.

Of course, today I am still working on H_2 production but I have expanded my research to algae bacteria consortia and wastewater remediation. Because I am more and more interested in finding solutions for climate change. Especially so since I went to Antarctica. I went on expedition there with another 80 women from different scientific backgrounds and the goal was to promote women in science while experiencing nature at its best. But I was very sad to see ice falling, a lot of brownish land and plastic when Antarctica should be a protected land and free of any sign of human activity. That really gave me the final sense of urgency for climate change issues and I realised how much more scientific leadership is needed. Nowadays, I am interested in using algae as a tool for biotechnology helping us transition to a more ecologic society. For me, this is my direct contribution to a greener society.

I want to thank the European Commission for all the efforts, the programmes, and frameworks that they put in place to support scientists – all the MSCA actions are key players. They have an added value since they train scientists in academia, industry, etc. ... in all areas (biodiversity, sustainable agriculture, climate action, and so on). The MSCA Fellows will represent a critical mass of highly trained scientists and we need them for the Green

Deal. But we need to think about what comes next. If we want the Green Deal to be implemented over the next 10 years we need to think about what will happen to all those scientists after their 2- or 3-years contract. In fact, climate change won't stop after 10 years so we do need a long-term plan, and that's exactly what should happen in Europe with the Green Deal.

- We need to have renewable energy has one of the priorities,
- develop more transdisciplinary research,
- we need to coordinate all those activities.

And perhaps what is even more important is political courage because many times science and scientists are being forgotten within the long chain of institutions. For example, it is only now in 2021 that the European Commission wants to tackle all aspects of climate change and is launching the Green Deal. This is a huge thing of course. And for me what is even more exciting is that within the European Innovation Council programme there is a specific call entirely dedicated to hydrogen production, this is the Holy Grail for me! We have never seen anything like this in Europe before. I would talk about political bravery! But still, I had to wait 20 years to get a dedicated European call to hydrogen. The good news though, is that COVID unfortunately has put science on the table and it is giving us the opportunity as society to react quickly to big challenges and as scientists to show we are up to the challenge, even though climate change is an even bigger threat than COVID.

Before I finish my presentation I want to mention the Marie Curie Alumni Association of which I am Board member. The Association regroups now more than 19 000 members from 150 different nationalities and we have the mission to support the MSCA Fellows professionally and personally. We intend to offer services, and of course develop an active network of scientists. So if you are not a member, please join us.

So now to finish I would like to say that with the Green Deal we have an opportunity to reclaim our role in society and need to gain even more momentum to act.

Science is the perfect tool to achieve a better world, but we need both European political courage and scientific leadership to get a sustainable future and that can be done through three things: I hope the NEW ERA pact that will come into place soon will help change this.

1. Dedicating funding to hire permanent scientists men and women from different scientific backgrounds and in any type of institution.

2. Switching this funding to long-term funding for labs and projects, both fundamental and applied in academia and industry.

3. Finally we need to invest in specific infrastructure, what about Green Deal laboratories or institutions?

Like the Commissioner Gabriel said on the last day of the R&DI event, "let's be bold" together, and I would be very happy to help.

Alexandra Dubini
MCAA Board Member
alexandra.dubini@mariecurielalumni.eu

Inspired?

Watch Alexandra's presentation

Special Focus:
EU Green Deal

Introducing the MCAA 'Resources and Climate Change' Task Force


Photo by Lidia Natalia

The MCAA is closely monitoring the EU Green Deal's publications. The Policy Working Group plays a key role and has set up a special "Resources and Climate Change" Task Force. We met Lidia Natalia Trusilewicz who told us about activities led by the task force.

Lidia Natalia Trusilewicz, in her own words

I am a PhD senior scientist and postdoctoral subject matter expert, science communicator, and R&D events' organiser, as well as a professional volunteer in the fields of engineering science, and sustainability.

Since 2017, I am an honoured representative of the Marie Skłodowska-Curie Actions (MSCA) programme thanks to the award of the European Commissioner for Education, Youth, Sport and Culture.

My directional academic background is a Master of Science in Environmental and Chemical Engineering, which I obtained with honours at the West Pomeranian University of Technology in Szczecin (Poland), in 2004. Instead, my doctoral studies focused on Industrial Manufacturing and Construction Science and concluded in a thesis defence and "CUM LAUDE" qualification at the Universidad Politécnica de Madrid (Spain) in 2014, for which I was also conferred the Extraordinary Doctoral Award a year later.

My first recent-undergraduate steps into an interdisciplinary opportunity to develop a sustainable, scientific approach belong to the MSCA programme and were on "Advanced Research Training on Conservation of Cultural Heritage" when I was awarded the

FP6-MSCA-EST-2004 Fellowship (2005) at Eduardo Torroja Institute for Construction Science – CSIC (Spain). I repeated the MSCA distinction many years after on "Management of Municipal Water Waste Treatment Plants Potential by-Products of Sewage Sludge Ash type, as Active or non-Active Additions to Portland Cement-based Binders" when I was awarded the H2020-MSCA-IF-2016 Fellowship (2017) upon scientific supervision of the AGH University of Science and Technology in Poland.

One stays a MSCA fellow for good and no matter what professional activities are taken later on!

Since January 2018, I am also a regular Subject Matter Expert and Project Monitor of the European Commission in the interdisciplinary disciplines' areas of Civil and Environmental Engineering and Circular Economy, sharing a many-year experience gained in both private and public research dedicated to many other EU institutions and entities.

I officially joined the MCAA community in 2017 and I am an active part of the Policy Working Group, dedicating my time to the leadership of the "Responsible Research Environments" Task Force. Finally, I convoke and take care of the "Resources and Climate Change" Task Force unit to extend the PWG's activities regarding the European Green Deal expertise ever since April 2020.

The MCAA Policy Working Group has been closely following the EU Green Deal since its launch in 2019. "As a direct consequence, the request of drafting a research agenda arose and the MCAA task force was created as part of the Policy WG activities," explains Lidia Natalia.

Past activities

The "Resources and Climate Change" Task Force pretends to gather MCAA volunteers with diverse backgrounds. "We especially welcome the engineering scientists at present but that's not the primary condition, of course!". One of the objectives of the task force is, amongst others, to bring answers to the new challenges scientists may encounter in the field of climate change.

A recent event organised by the task force that already took place in the past months dealt with the "EU Green Deal Research Charter assessment in global pandemic times." This session panel was held during the latest MCAA Annual Conference "Research in times of crisis" from 5 to 7 March 2021.

"However, it all started with the ESOF2020 EuroScience Open Forum conference, when we organised our first panel session on: 'The prestige of scientific expertise vs. technology demand - parallel routes for a common innovative purpose?'" Thanks to the new inspirations from the post-pandemic landscape especially, the task force has recently started working on an elaborated Green Deal charter draft, which has not been formalised yet.

Upcoming plans

MCAA members will continue working on the EU Green Deal charter as well as analysing the EU Green Deal's documents and conceptual derivates from the perspective of post-pandemic scenarios and environmental economy.

What's more, new lessons learnt by other communities are currently being discussed within the task force, such as the "trilemma" identified by the International Energy Charter between energy security, economic development, and environmental


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protection. "We bring scopes, objectives, and participative approach of our community in delivering the Green Deal deadlines. We shape ahead the researchers' responsibilities not always centred in academia or very often far beyond it instead. We finally sustain the post-pandemic green perspective by providing evidence-based solutions that actually are meaningful and viable," emphasises Lidia Natalia.

MCAA's potential contribution to the Green Deal

According to the Alumna, the role of the MCAA is paramount to help implement the objectives of the Green Deal. "Our MCAA international community and the Policy WG particularly can contribute substantially through policy recommendations and specific evidence-based expertise to shape them appropriately," she says.

To Lidia Natalia, "the MCAA by gathering the MSCA-based pioneers of our scientific community contributes to developing researchers' roles, as well as by promoting their masterful authority through, what showed to be crucial the last year especially, an effective and efficient science communication and transfer of knowledge among differentiated series of audiences and a proficient decision-making process – here we are consciously for all this!"

Aurélia Chaise
MCAA Editorial Team

Special Focus:
EU Green Deal

How our lifestyle impacts our environment

Perrine Laroche and Claudia Parra Paitan had the opportunity to present the COUPLED project at the MSCA European Green Deal Cluster Event that took place on 6 and 7 July 2021. They told us about their project and reflected on the EU Green Deal.

Photo by Claudia Parra Paitan

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Claudia Parra Paitan, in her own words

Claudia is a Biologist doing research on the sustainability of cocoa production and trade in West Africa and the world. She has worked before with rural farming communities of Andean mountain areas to help them adapt to climate change and improve the sustainability of production systems.

Perrine Laroche, in her own words

Perrine's background is in Geography and Economics. She does research on the spatial dimension of environmental impacts associated with current and alternative Western lifestyles.


Photo by Perrine Laroche

Both our interviewees are committed to tackling **ecosystem degradation** through their research.

Claudia is currently working on the sustainability implications of global cocoa trade by analysing the market configuration of cocoa traders and the sustainability commitments covering the supply chain at global level and in each consuming and producing country.

From her side, Perrine is currently investigating whether the meanings people attribute to landscapes, ecosystems, or species change as a function of the physical distance between them and nature.

They had the opportunity to work side by side on the COUPLED project.

"Nowadays, products contain raw materials from all over the world"

Globalisation has reduced the virtual distances between countries through the increase of international trade. "Nowadays, products contain raw materials from all over the world and thus, something produced in Asia can be consumed in Europe after having gone back and forth several times to other areas as a routinary process of modern value chains," explain our interviewees when mentioning the context of their project.

The COUPLED project, an MSCA Innovative Training Network, aimed to investigate the causes and consequences of these increasing connections between distant places to better understand the sustainability issues tied to these dynamics.

"COUPLED looks at how these connections relate to different land-based products such as soy, cocoa, coffee, oil palm, gold, but also to many other phenomena driving the demand and supply of those, such as infrastructure development, diets, lifestyles, conservation policies, market flows, news, and trade regulations," add Perrine and Claudia.

"More attention needs to be paid to the negative impacts that EU consumption and production has abroad"

Both our interviewees think that the EU Green Deal helps to move the sustainability agenda forward by sending a strong sustainability signal to the world. "However, we believe that more attention needs to be paid to the negative impacts that EU consumption and production have abroad," say Claudia and Perrine.

Both agree that the EU's import of unsustainably produced items and the offshoring of certain polluting production activities can generate those negative impacts on the environment. "Due diligence

mechanisms are being prepared to tackle this challenge and this is a good sign. However, the deep interconnection of global markets calls for policies aiming to address the drivers of unsustainable practices in producing countries to effectively leave no one behind," they add.

"Research is essential to make informed policy decisions"

To them, the role of researchers in implementing the Green Deal's objectives is paramount. "Research is essential to make informed policy decisions. To support the objective of the Green Deal, research must examine the impacts that the European economy has beyond its borders due to the production and consumption of land-based products in the European Union," explain Perrine and Claudia.

Research can also provide us with tools and methods to understand the drivers behind unsustainable practices and the direct and not-so-obvious indirect impacts of the European economy. "This is essential to guide the Green Deal agenda," they add.

Both agree that the biggest challenge ahead is to avoid displacing emissions and negative impacts to other nations and markets. "The situation of 'net zero' has to be carefully defined to avoid rewarding polluting or unsustainable entities that have the financial capacity to compensate rather than reduce emissions or correct unsustainable practices," conclude Perrine and Claudia.

Aurélia Chaise
MCAA Editorial Team

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Special Focus:
EU Green Deal

How to respond to future warming temperatures

Photo by Amanda Pettersen

About to get started on her MSCA project focused on adaptive potential for early life physiology to respond to future warming temperatures, Amanda Pettersen shared with us her views about the EU Green Deal.

Amanda Pettersen,

in her own words

I am an evolutionary ecologist interested in understanding why and how variation in biodiversity persists, and how organisms respond to environmental change.

My work spans different study systems (fish, reptiles, and marine invertebrates) to address research gaps at the intersection of ecology, physiology, and evolution.

I received my PhD from Monash University (Australia) in 2018 in the Marine Evolutionary Ecology Group. I measured physiological traits during early life in marine invertebrates and fish to test ecology theory. During my PhD, I spent six months in the US on an Endeavour Fellowship to work on energy expenditure during brooding in freshwater fish.

After my PhD, I started a Wenner-Gren Fellowship at Lund University in Sweden to work on maternal effects in the common European wall lizard. I sampled lizards from different altitude populations and brought them back to the lab to compare physiological responses to incubation temperatures in developing embryos.

Eager to get started on her MSCA Fellowship, Amanda recently moved to the University of Sydney (Australia) to begin her preparation. "Starting in September, my project will investigate the adaptive potential for early life physiology to respond to future warming temperatures," she explains. As a methodology, she plans to use a breeding design to separate genetic versus environmental sources of variation in physiology.

"I will then be trained by my host supervisor, Frank Seebacher, to measure differences in mitochondrial efficiency between populations, and whether this may provide an underlying mechanism of adaptation to changing climates," she adds.

She will afterwards spend the incoming phase of her MSCA project at the University of Glasgow (Scotland), under supervision of Neil Metcalfe, to analyse and write up the project's results.

"I think that successful implementation of the EU Green Deal could serve as a crucial turning point in history"

As an evolutionary ecologist, Amanda has been following the launch of the EU Green Deal. "I think that successful implementation of the EU Green Deal could serve as a crucial turning point in history, to start mitigating and potentially reversing the unprecedented impacts of climate change we are experiencing now and into the near future," she says.

According to Amanda, the EU is likely to become a world leader in reversing the impacts of human-induced climate change. "However, we need high compliance, and data collection to monitor the Green Deal's effectiveness," she adds.

Amanda highlights the important role of researchers in contributing to the objectives of the Green Deal. "Humans are inextricably connected to their natural environment – our society depends on maintaining biodiversity for food, medicine, and technology. Therefore, innovative research that gives us a greater understanding of organisms, and their predicted response to future environmental change, is crucial for the persistence and improvement of our health and well-being," she muses.

To Amanda, data is paramount. "It will also be important to have good data collection alongside the implementations, to monitor their effectiveness in preserving biodiversity and mitigating the loss of habitat and extinction of species. This will require strong, international collaboration and communication, with stronger ties between scientists, policy makers, and the public," she concludes.

Aurélia Chaise
MCAA Editorial Team

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Special Focus:
EU Green Deal

Cleaning up soils with plants


Photo by Klaus Hagemann

Filip Pošćić has 14 years of experience in the areas of plant metal physiology and ecology. He was happy to share with us the first outcomes of his project and to reflect on the EU Green Deal.

Filip Pošćić, in his own words

I am a Marie Skłodowska-Curie Fellow in Ute Krämer's Department of Molecular Genetics and Physiology of Plants (Ruhr University Bochum, Germany). I am currently investigating environmental and genetic contributions to variation in leaf cadmium (Cd) and zinc (Zn) accumulation in Arabidopsis halleri populations in the field. I have 14 years of experience in the areas of plant metal physiology and ecology.

I studied at the University of Trieste (Italy) where I obtained my Master degree in 2007 on nucleotide diversity in coding and regulatory genomic regions of maize. After a research project on metal tolerance and ecological characterisation of Biscutella laevigata populations, I obtained a PhD in Ecology in 2012 at the University of Udine (Italy), with a short stay at the Free University Amsterdam (the Netherlands).

From 2012 to 2016, I worked at the University of Udine and was awarded financial support for young scientists in 2013 for research on cerium toxicity in plants.

From 2016 to 2019, I worked at the Institute for Adriatic Crops and Karst Reclamation in Split (Croatia) and at Ruđer Bošković Institute in Zagreb (Croatia) on soil–plant interactions and nutrient deficiencies and trace element toxicity in olive trees.

In 2019, I was awarded a Marie Skłodowska-Curie Fellowship for the DyCLE project and moved to Ruhr University Bochum (Germany). The DyCLE project is funded by the European Union H2020-MSCA-IF-2018 under Grant Agreement No 845234 (DyCLE).

Currently running the last experiments of his MSCA project, Filip is looking forward to seeing the final results of his work. Our Fellow outlines his project: "metal hyperaccumulator plants accumulate extraordinarily high concentrations of metals in their leaves. Zn hyperaccumulation is a species-wide trait in Arabidopsis halleri, while Cd

hyperaccumulation is population specific. In this plant, Cd hyperaccumulation is selective for the non-essential Cd (II) in the presence of a large excess of more abundant chemically similar nutrient cations in the soil solution, for example those of iron (Fe) and Zn," he says.

Filip's host group observed an unusually large variation in leaf Cd concentrations within few Arabidopsis halleri populations growing on non-contaminated (non-metalliferous) soils. "The objective of my project ('Dynamics of Cadmium concentrations in Leaves in response to a challenging Environment') is to understand how this variation arises and whether it is a result of evolutionary adaptation," he adds.

"We have only one planet and we need to protect our Earth"

Like many researchers, Filip follows with attention the decisions of the European Commission and the Parliament, and especially those about the environment, like the EU Green Deal.

"We have only one planet and we need to protect our Earth. Therefore, I approve the efforts to reduce emissions of greenhouse gases, preserve biodiversity and achieve economic growth not tied to resource use. Reaching climate neutrality by 2050 remains so far a dream," explains Filip. According to him, more concrete actions are necessary and more countries need to be involved.

"Research has always been at the heart of the development of human society"

To reach the objectives of the EU Green Deal, the role of researchers is key. "Research has always been at the heart of the development of human society. Every fundamental step for humans started from a little research, from a little idea. I can't fully say why my research is necessary for the future, but I know it is a fundamental piece in increasing human knowledge," muses Filip.

In the framework of his research, Filip found that some plants such as Arabidopsis halleri and Noccaea caerulescens could be used to clean up soils contaminated with toxic metals such as Cd, lead (Pb), nickel (Ni) and Zn (popularly known as heavy metals). These plants accumulate extraordinarily high concentrations of toxic metals in their leaves and are known as hyperaccumulators. Since the aforementioned plants are very small, however, the research is focused on genes involved in metal accumulation. The expression of these genes could be enhanced in high-biomass crops in order to make the plant-based clean-up (phytoremediation) of metal-contaminated soils more effective.

"Phytoremediation could help in minimising soil erosion, water, and soil pollution, increasing biodiversity and protecting animal and human health. Phytoremediation could also be much eco-friendlier and cost effective compared to mechanical removal," explains our Fellow.

To ensure the implementation of the Green Deal's objectives, Filip emphasises the role of the scientific community in communication in tackling emotional-based decisions. "We need to start spreading scientific facts and a positive attitude toward scientism. We first need to give practical positive examples by ourselves," he concludes.

Aurélia Chaise
MCAA Editorial Team

Special Focus:
EU Green Deal

Using heat sources as fuel for the production of green electrical power

Photo by George Ruiu, Gabriel Constantinescu and Matthieu Lopes

Gabriel Constantinescu conducts research in energy materials and green electricity. To him, all Europeans have a role to play in achieving the objectives of the EU Green Deal.

Gabriel Constantinescu,

in his own words

I am a materials scientist and engineer and I currently work as a researcher in the EU project 'TEOsINTE. Thermoelectric oxide composites: design through controlled interactions', won together with my supervisor, Andrei Kovalevsky.

I have a degree in Environmental Engineering (2009, Politehnica University of Bucharest, Romania), a Master of Science degree in Physics (2011, University of Bucharest, Romania), and a PhD degree in Physics (2014, University of Zaragoza, Spain).

At present I conduct research in state-of-the-art energy materials (high-temperature, oxides-based thermoelectric materials for waste heat recovery applications). I have also worked on other materials for energy production, conversion, and storage (piezoelectrics, multiferroics, perovskite solar cells, high-temperature superconductors) and some biomaterials (superparamagnetic nanoparticles, functionalised dental implant surfaces).

I had the opportunity to work in various multidisciplinary R&D projects (on diverse functional materials) in different EU countries (Romania, Spain, Germany, Portugal).


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"All the materials researched in my MSCA project are made of cheap, abundant, and environmentally friendly constituents," says Gabriel with enthusiasm, when talking about his MSCA project.

In the framework of his research, he takes some of the most promising thermoelectric ceramic oxides to date (Ca_3Co4O_9, ZnO, $SrTiO_3$, $CaMnO_3$) and tries to improve their high-temperature thermoelectric performance and chemical stability, by using a composite approach, especially tailored for each particular case.

The technology Gabriel is working on can use any residual heat source as fuel for the production of green electrical power. "Considering the large number and variety of industrial waste heat sources, the practical use of such a technology in almost any 'circular economy' scheme becomes obvious," he adds.

"The EU Green Deal is very bold and very good"

Having followed the Green Deal's initiatives, Gabriel considers the package of measures as a good signal. "The EU Green Deal is very bold and very good," he says. "I think this novel, 'one-of-a-kind' initiative has to be much more carefully administered and in much more detail, if its goals are to be successfully reached," he adds.

When mentioning the objectives of the Green Deal, which are no net emissions of greenhouse gases by 2050, economic growth decoupled from resource use, and no person and no place left behind, Gabriel thinks that the role of research is to show whether those proposed objectives are achievable. "I think the contribution of research to the implementation of the scheme is of paramount importance, since it provides the best means and methods to safely and effectively explore the proposed objectives," he adds.

To him, it is important that all Europeans get involved in the achievements of the Green Deal's objectives. "If most Europeans could see the benefits and advantages of adopting this new way of living and doing things, the Green Deal would naturally fall into place," he concludes.

Aurélia Chaise
MCAA Editorial Team

Special Focus:
EU Green Deal

Water, an ally to fight climate change

To Jesús Morón López, protecting the quality of water is key to tackle climate change. He shared with us his hopes and expectations as regards the EU Green Deal.

Jesús Morón López,

in his own words

My name is Jesús Morón López and I was born in Seville, a warm city situated in the south of Spain.

I am a biologist with a master's degree in Molecular Genetics and Biotechnology from the University of Seville. I received my PhD with Honours in Hydrology and management of Water Resources from the University of Alcalá (Madrid, Spain).

Since I started my career as a researcher at IMDEA Water Institute (Madrid, Spain) in 2014, I have been working with harmful algae blooms (HABs). This six-year research experience was focused on environmental monitoring and the development of biological-based systems for drinking water treatments.

After this period, I joined a binational project between Japan and Chile as a Postdoctoral Fellow at Okayama University (Japan). This project aimed to elucidate the mechanism involved in marine HABs formation, which has seriously damaged the coastal fishery in southern Chile in recent years.

I am currently a postdoctoral researcher working in the ALGICYDY project at the European Regional Centre for Ecohydrology of the Polish Academy of Sciences (Lodz, Poland). This project focuses on the role of symbiotic and pathogenic bacteria in the algal bloom dynamics.

During his PhD studies, Jesús has been involved in several MSCA projects focusing on science outreach activities through the organisation of the European Researchers' Night. "I participated in research communications related to microbial ecology, climate change, and freshwater pollution," he explains. Jesús focused on explaining how human impact on the natural environment leads to a worsening of water quality.

Focusing on water

Currently working for the ALGICYDY project, Jesús conducts research to isolate, identify, and characterise algaecidal bacteria that coexist with bloom-forming algae in freshwater. His main purpose is to better understand their role in controlling HABs and to propose nature-based solutions to mitigate their impact.

Jesús is also involved in projects focusing on HAB monitoring in freshwater. "These projects are based on real-time remote monitoring techniques using smart buoys with sensors, satellite imagery, and drones. These systems continuously monitor water quality parameters in lakes and reservoirs (e.g., temperature, pH, salinity, chlorophyll-a, phycocyanin, nutrients, pollutants, etc.) in an attempt to predict the HABs outbreaks in affected areas," he explains.

Photo by ADragan on Shutterstock

To Jesús, focusing on water to tackle climate change is paramount. "Global warming and nutrient pollution trigger freshwater eutrophication, which is intensifying HABs in many water bodies around the world. Raising public awareness of the devastating effects these phenomena have on public health, economy, and ecosystems is therefore key," he adds.

"I believe the EU Green deal is indispensable to tackle the climate crisis"

Jesús highlights the importance of initiatives like the EU Green Deal. "I believe the EU Green Deal is indispensable to tackle the climate crisis that is hitting and will further affect the 21st century society. I highlight the integrative vision of the proposal, which allows addressing different problems related to climate change under a common sustainability framework," he says.

To Jesús, research is essential to implement the objectives of the Green Deal. "Decision-making must be underpinned by a scientific basis to recognise, understand, and apply appropriate measures to address the climate challenge," he explains.

Scientific research can indeed bring imaginative solutions and alternatives for the effective implementation of the objectives of the Green Deal, without affecting the society. "Once we understand that preserving our natural environment is the most efficient way to manage and maintain our water, energy, and food resources, the ecosystem itself will become our best tool to face future challenges," says Jesús. To him, integrating green and circular economy principles into the current social, economic, and industrial system is key to ensure a successful transition towards a carbon neutral economy.

Aurélia Chaise
MCAA Editorial Team

Special Focus:
EU Green Deal

How plastic contributes to marine pollution

Conducting research on the role of plastic in the marine cycle, Luisa Galgani is a Fellow committed to tackling pollution. To her, scientists must work closer to the society, through citizen science actions for example.

Photo by Luisa Galgani

Luisa Galgani, in her own words

I am a marine scientist, I am mainly working on marine carbon biogeochemistry. The past six years, I have been interested in the role plastic has in the marine and aquatic carbon cycle.

I studied in Italy Environmental Sciences and Environmental Chemistry, and I received my PhD in Germany at the University of Kiel, working between the Alfred Wegener Institute for Polar and Marine Research and at GEOMAR Helmholtz Centre for Ocean Research Kiel.

In 2016, I obtained an MSCA Fellowship to work on a first project on plastic in the biogeochemistry of the surface ocean (POSEIDOMM project, Grant Agreement No 702747) that was developed at the University of Siena, Italy.

During POSEIDOMM, I also ran a parallel project on citizen science and aquatic environments monitoring for macro-litter. It was a very nice opportunity to get involved with community outreach and get to know macro-litter distributions and water quality in freshwater resources of the area through engaged citizen volunteers. There is also a Euronews video on this project available here.

In July, I started the PLOCEAN project (Grant Agreement No 882682), a global MSCA Fellowship developed between the US and Germany as home institution country. I am now at the Harbor Branch Oceanographic Institute (HBOI) of Florida Atlantic University (US) for the two-years outgoing phase.


Photo by Romolo Tavani on Shutterstock

Luisa is currently working on her MSCA project PLOCEAN, which stands for 'Plastic impacts on Ocean's biogeochemical cycles in the Anthropocene'. "Plastic pollution is an increasingly present threat to marine ecosystems. When microscopic particles are discarded into waterways, they can interact with microbial communities and alter their distribution and activity. In addition, they can perturb the biogeochemical cycling events in which microbes participate," she explains.

The PLOCEAN project combines field observations and theoretical studies to understand how microplastics distribute in marine environments and affect the microbes' ability to transform organic compounds, with repercussions on the global marine cycling of carbon and other elements. "If the present pandemic allows more social interaction, I'd also like to devote an important part of the work to outreach activities and citizen science," adds Luisa.

"I strongly believe that no person and no place should be left behind"

To Luisa, the launch of the EU Green Deal is a good signal that Europe is sending to the rest of the world, even if she thinks that such an agreement should have taken place earlier. "Sometimes I wonder whether it's too late. We need to preserve biodiversity and try to carry on a planet that will be habitable for future generations. For me, future generations can be my nephews, it's not so far in the future," she muses.

To Luisa, the pandemic of COVID-19 shed a light on the importance of science and research in a context of urgency to find a suitable vaccine. However, she thinks that researchers should do more. "As researchers, we have an obligation towards society so we should aim at getting more involved in cross-contamination with other scientific disciplines as well as be transparent and willing to engage in political and social discussions," she says.

Achieving the objectives of the Green Deal is possible according to Luisa, provided that access to research resources will be shared equally between countries. "I think that there are too many differences in research funding possibilities and infrastructure among European countries. I strongly believe that no person and no place should be left behind," she concludes.

Aurélia Chaise
MCAA Editorial Team

Special Focus:
EU Green Deal

EUROPEAN JOINT DOCTORATE

M2-ex

Metal-Micro exploitation

Developing a sustainable bioeconomy: metals, microbes and beyond

An international group of 15 aspiring researchers, working collaboratively within 5 European laboratories, join forces to tackle the rising problems of waste generation and energy demand. The key might lie within deciphering the complex role of metals in energy production and recovery approaches.

As a society, we are facing and will continue to face enormous challenges, such as climate change, food and water shortage, **waste generation** and **natural resources depletion**. Over the years, these problems have become complex, almost impossible to solve, and little attention has been given to the numerous concrete actions taken to tackle these issues.

It is of utmost importance to continue finding innovative strategies that will bring targeted solutions without posing additional environmental and health risks. The M2ex project is a European Joint Doctorate funded by the European Union's Horizon 2020 research and innovation programme under the Marie Skłodowska-Curie grant agreement. 861088. It attempts to develop new **circular economy waste management strategies**, based on waste valorisation, resource recovery, reutilisation, and bioenergy production.

The project's core focus is on trace metals because they are natural resources with a big environmental footprint needed for the better functioning of bioenergy processes. They are also potentially toxic for humans and ecosystems if released into the environment. Therefore, the project aims at understanding their role and dynamics in bioenergy production technologies, such as **anaerobic digestion (AD)**, as well as their presence and fate in the generated waste and the environment.

Metals in AD: From cradle to grave

AD is a common waste treatment technology in which **organic waste** from agricultural, industrial, or sewage systems get broken down in reactors by **microbial activity**. The main end-product is **biogas**, a great source of energy that can be used as engine fuel or converted into heat and electricity. Another valuable residue of AD is **digestate**,

a nutrient-rich material that can be applied to soils as agricultural fertilizer. A variety of physical, chemical and biological factors support proper functioning of anaerobic digestion processes. Several metals, in small and balanced amounts, are key for developing and maintaining a strong, active microbial community (Fermoso et al. 2019), and therefore, need to be constantly supplied.

The metals interaction with microbes in AD, the way they shape their ecology and how these organisms influence metal chemistry in return, will be addressed. This will be crucial to establish a proper usage of metals in the AD process. A great part will be dedicated to studying transfer and movement of metals from digestate into natural environments, and their interactions with plants and soil microorganisms. Strategies to recover metals along the entire AD process chain will also be studied to prevent their release in the environment. Finally, bioremediation processes for metal uptake directly from contaminated wastewaters, digestates or contaminated soils will be developed, thus closing the loop and permitting metal re-use in the AD process.

Collaboration: long-term source of energy

The project takes advantage of the incredible cooperative dynamic, rendered possible by its founders, to approach different but intertwined aspects of this question. Thanks to the expertise of the 5 European host laboratories, the project unites many disciplines and scales, from molecules, to cells, to the environment.

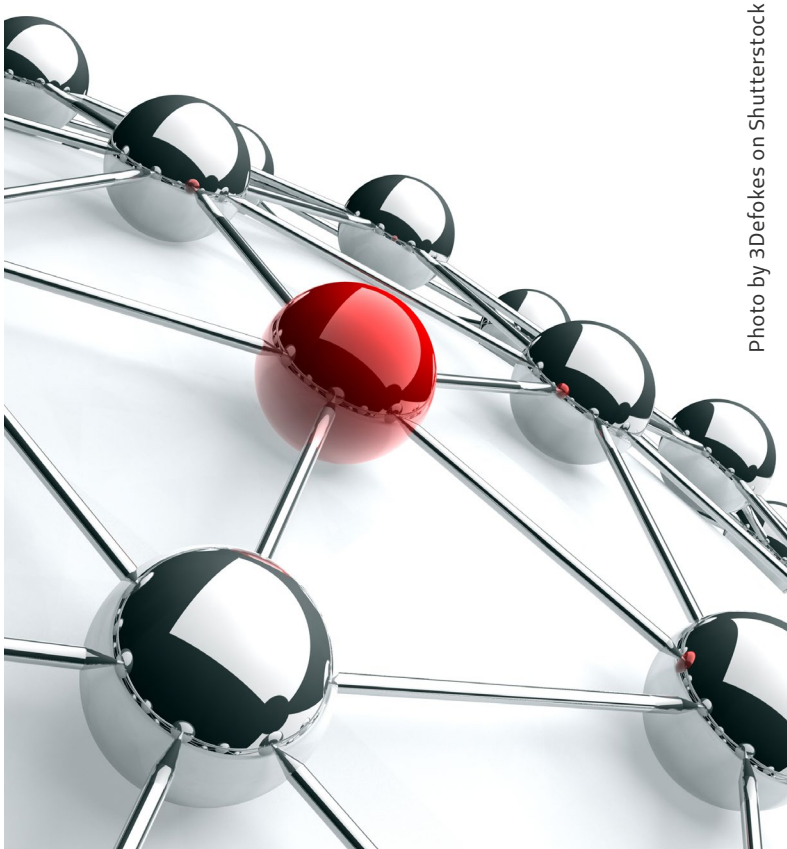
The host institutions and expertise of the labs involved are:

- Università degli studi di Napoli Federico II (UNINA): Mathematical modelling
- Universidade do Porto (UP): Ecotoxicology and environmental remediation
- Instituto de la Grasa, Seville (IG-CSIC): Bioprocesses for Circular Economy
- National University of Ireland Galway (NUIG): Applied microbiology
- Université de Limoges (UNILIM): Aquatic environments ecotoxicology & chemistry of water contaminants

Collaborations with other European research and industrial partners make M2ex an international and synergistic project.

A shared journey

The project will train 15 fellows to become future leaders of Europe's circular bio economy. Thanks to the diversity of the programme, the fellows have the possibility to explore different cultures, enrich their experience and make life long bonds. The ESRs come from 12 countries, located in 4 continents. One thing ties them together and makes them the perfect fit for M2ex: their passion for environment and its protection, and building a sustainable society through technological development. The ESRs academic backgrounds are in:



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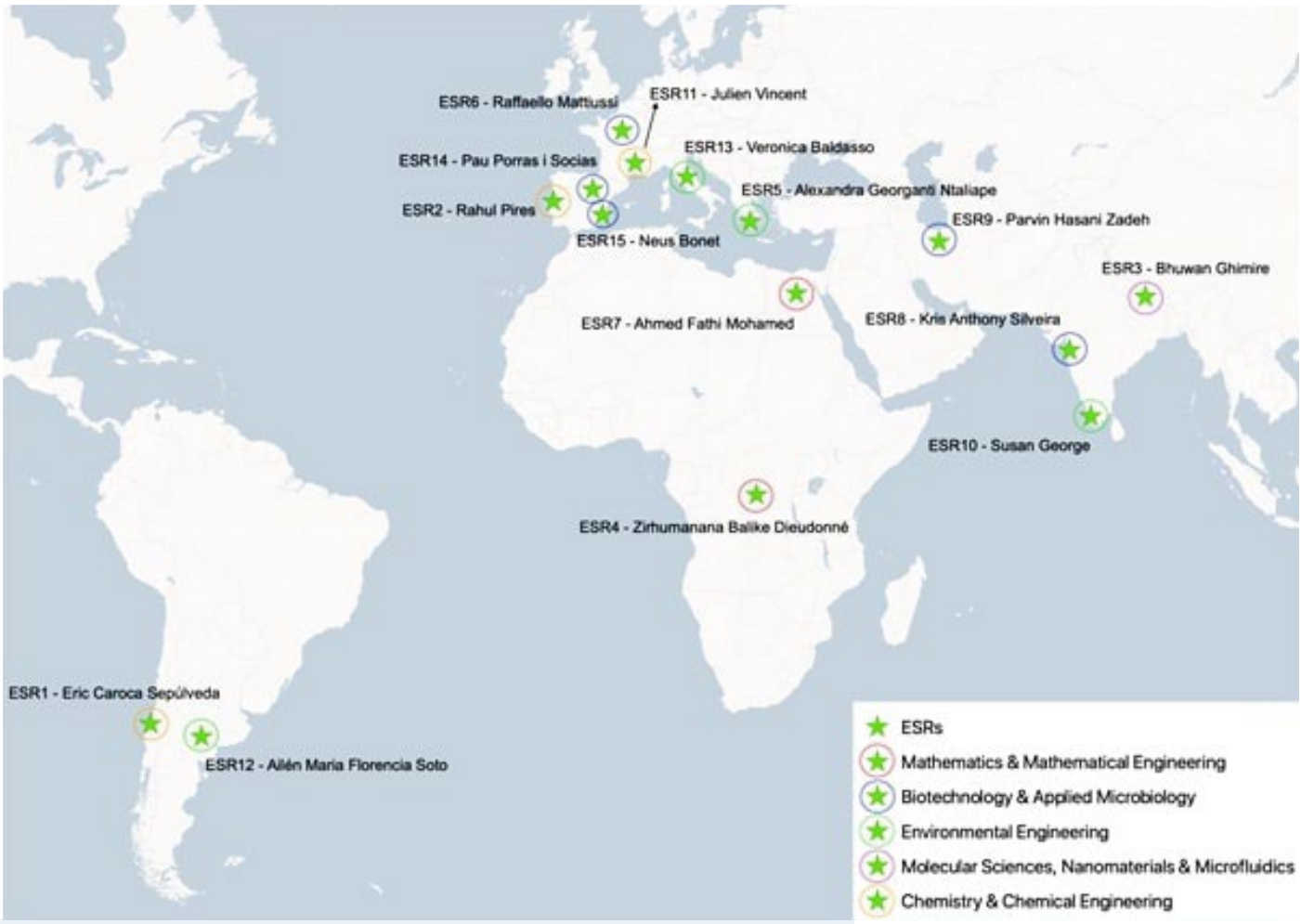

Geographical distribution and research areas of the project's members.

- Environmental engineering
- Mathematics
- Chemistry
- Applied microbiology
- Molecular sciences.

The great variety in fields will contribute not only to the success of the overall project but also to the growth of each researcher. The ESRs will have the opportunity to attend network-wide training, necessary to expand their knowledge on the research topics, and obtain complete and global scientific formation. In the course of the project, they will also learn soft and transferable skills essential to become frontrunners for the next generation of researchers in the field of bioenergy production, waste management and environmental remediation.

Veronica Baldasso
Early Stage Researcher (ESR 13)
veronica.baldasso@fc.up.pt

Raffaello Mattiussi
Early Stage Researcher (ESR 6)
r.mattiussi1@nuigalway.ie

More information

The M2ex project can be found on Twitter, Instagram and LinkedIn

News from the Chapters

Meet the Chair of the MCAA African Chapter

Photo by Temilola Oluseyi

The African Chapter is the umbrella body of the Marie Curie Alumni Association with origins from any of the 54 African countries. What are the challenges of running a huge chapter with a diverse membership and geographical spread? Temilola Oluseyi, the newly elected Chair, shares her vision in this interview.

Preamble

Temilola comes with a vision to "Enhance the interdisciplinary flow of knowledge among alumni members across different countries in Africa and to encourage networking, research collaborations, and engagements among MCAA members in Africa and the entire MCAA Network and also external stakeholders in academia, industry, governance, and policy making."

Temilola, in her own words

I am Temilola Oluseyi, from Nigeria, an Analytical and Environmental Chemist and an Associate Professor in the Department of Chemistry, University of Lagos. I am a Co-Investigator on a Marie Skłodowska-Curie Research and Innovation Staff Exchange Project – 'Synergizing International Research Studies into the Environmental Fate and Behaviour of Toxic Organic Chemicals in the Waste Stream' (INTERWASTE). I was an EU Sponsored Research secondee on the project from May to November 2017 at the Division of Environmental Health and Risk Management, School of Geography, Earth and Environmental Sciences of the University of Birmingham (UK).

My research interest lies in analysing environmental samples, which address the sources, fate, and behaviour of persistent organic pollutants (POPs). I also study human exposure to POPs with a focus on indoor pathways via inhalation and ingestion of dust and food, measuring levels of these chemicals and their sources, particularly in indoor environments. My other interests include the analysis of potentially toxic elements in contaminated land, sediments, and waters.

I am a member of the Royal Society of Chemistry and also a member of the UKRI International Development Peer Review College.

Membership and structure of the African Chapter

"The Chapter was established in 2014 and composed of members from all 54 African countries. The Chapter is open to MCAA members who are of African origin, based in Africa, and/or interested in research in Africa. Since its inception, the Chapter has had four Chairpersons including the current Chair: three females and one male. Members of the Chapter have participated in MCAA global events including the MCAA Conferences and AGMs. The Chapter currently has 128 members ," explains the Chair.

Photo by Anton Balazh on Shutterstock

Due to the diversity and the wide geographical spread, managing the Chapter is not an easy task. Therefore, to ease the management of the Chapter, "the structure of the Chapter was modified in 2019 into two sub-chapters: the Ethiopian (covering north to central Africa), and the Nigerian (west to south Africa), and two sub-groups: the Research Collaboration, and Communication. These sub-groups are headed by Bernard Kanoi, an Assistant Professor in the Division of Malaria Research, Proteo-Science Center, Ehime University, Japan, and Emmanuel Salifu, a Presidential Postdoctoral Fellow at Arizona State University, USA, respectively."

Objectives and activities of the Chapter

The African Chapter has a clear objective, according to Temilola; "the Chapter aims to provide a platform for members to network, collaborate, and share experiences, to support innovation, creativity, knowledge advancement, and policy development for Africa and Africans. We hope to achieve these by organising meetings, discussion forums, career development programmes, joint events with national/regional/global partners, and social events that seek to create opportunities for networking and cooperation for societal benefits."

"The Chapter is open to hosting joint events with other MCAA Chapters and Working Groups, organisations across Africa and outside the continent, that promote similar goals."

In terms of activities, "the Chapter successfully held its first-ever webinar in October last year, with the theme: Research Mobility. The webinar focused on exploring brain circulation in Africa–EU research relations and featured talks delivered by Wilfred Ukpere from the University of Johannesburg, South Africa, and Bérénice Kimpe from the University of Bayreuth in France, among other discussions," says the Chair.

Harnessing the potentials of the members of the Chapter

"One of the main challenges we face is that most of our members are based outside of Africa," lamented the Chair. To address this challenge and harness the potentials of the members for the benefit of the continent, the new leadership is working to "create incentives that will attract our members back to Africa to contribute to the development of the continent through the opportunities offered by the MCAA. We are also exploring the concept of 'Brain Circulation', which promotes the circular movement of skilled labour (MCAA African Chapter members) across nations of Africa and other continents. This way we can benefit from our members whether they are resident in Africa or abroad."

The new leadership is also working on "collecting the full updated data of the members of the Chapter, especially their current affiliations and places of residence. We have observed that member engagement with Chapter activities needs to be improved; and to do this, we need to understand the kind of incentives or motivations that members need. We are doing a membership survey to collect the necessary data for this. Based on the information we receive, we plan to organise events that would be of interest to our members and we hope to see greater participation and engagements."

"We are excited about the new EURAXESS Africa and are looking forward to working together to link our members to career opportunities, research partnerships, and other avenues for cooperation."

The Chair is particularly excited about the current efforts of the new leadership in enhancing collaborative research between the members of the Chapter in and outside Africa and other MCAA members, Chapters, and Working Groups. For this, the Chair has this to say: "Currently, we are focusing on establishing our local membership database and encouraging participation and engagements at the Chapter level. However, plans are underway for collaborations with the new EURAXESS Africa. In addition, we have had a recent collaborative meeting with Bérénice Kimpe, the Gateway Manager of the University of Bayreuth in France; hopefully, some positive outcomes are in the pipeline. Some of our members have also been involved in the activities of the AU-EU High Level Policy Dialogue, sharing their experiences as MSCA-funded researchers."

What can we do to support the Chapter and its members?

The Chair believes that the MCAA members, especially the Board, have a key role to play in supporting the Chapter. "As a unique Chapter (covering a continent rather than a country), we would appreciate some understanding from the Board of the MCAA in terms of how the Chapter is managed and the metrics required to keep the Chapter functional. Any support that can facilitate membership participation and engagement, irrespective of their places of residence, will also be great," she concludes.

Yahaya A. Yabo
Luxembourg Institute of Health
MCAA Editorial Team
YahayaAbubakar.Yabo@lih.lu

News from the MCAA

The 5 Ws and 6 Cs for a better communication strategy

MCAA Communication Working Group's Chair Ruben Riosa organised a webinar on science communication with invited experts: Alexia Youknovsky (CEO of Agent Majeur) and James Bowers (Chief Editor at Polytechnique Insights). In this piece, I want to share some of the key messages with you.

Communicating science is more or less part of a researcher's day-to-day life. How a researcher needs to communicate depends on the platform and the type of audience the researcher would like to interact with, such as experts, policy makers, the general public, and even children. Efforts should be taken in terms of format and content, which require investing time and energy. Having a proper strategy will help get the most out of the results (or concept) you want to communicate. Otherwise, the result will not be fruitful.

Source: The recording of the webinar is freely available at https://youtu.be/EhDs7AOjW28

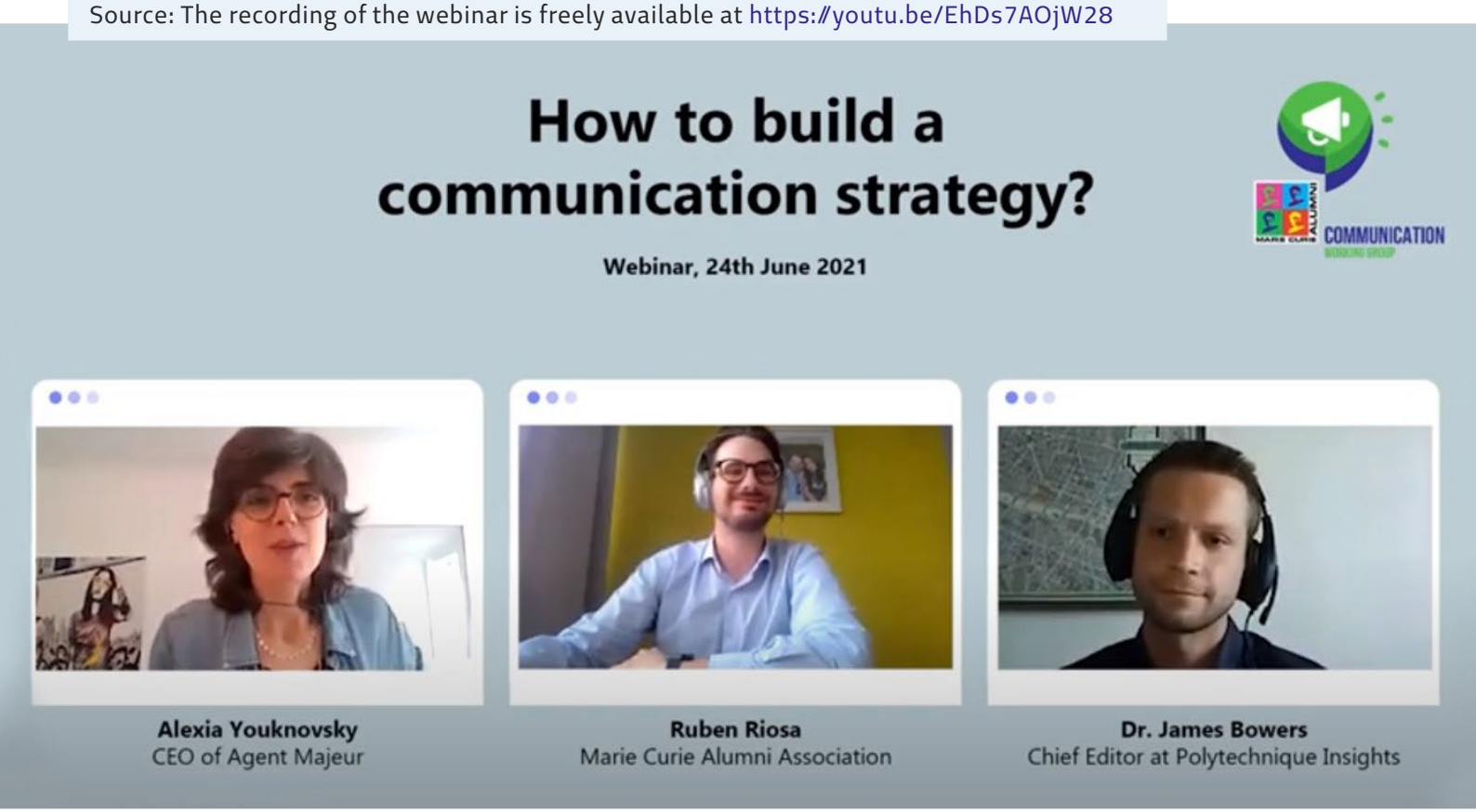


Photo by Brad Neathery on Unsplash

To build an effective communication strategy, you have first of all to ask yourself, each time, the five Ws:

1. Why?

Why do you want to communicate? Define your objective. Is it to increase your project's visibility, pitch an idea to the funding bodies, or improve the layperson's understanding of this topic?

2. Who?

Who is your target audience? Define your audience: Colleagues within your team? Peers at the department? Funding agencies? Policy makers? For this purpose, put yourself in the audience's shoes, list your target audience, and prioritise the message accordingly. For example, your colleagues might be interested in the results you have got, methods you have used. However, funders will likely be more interested in their investment returns, i.e., what benefits your results have for society.

3. What?

What message do you want to communicate? The message you want to communicate should match your objective(s) and the one(s) of the audience. Often, the message is related to one's research project that no one knows better than the speaker, and it is often not easy to deliver in a short and precise way. Thus, think about the essential points you want to communicate.

4. Where?

Where do you want to communicate? Is the message conveyed through printed material, brochures, blog posts, or social media websites? Your strategy should include the medium of communication by considering your target audience. Not all platforms are suitable for all the audience. For example, TikTok might work well when your target audience is young people. But if you intend to communicate with policymakers, TikTok might not yield the desired results. Though "young" digital platforms have a wider reach, traditional communication channels such as conferences and journal publications are still in the field. Once again, put yourself in the audience's shoes to help you choose the suitable media.


Photo by National Cancer Institute on Unsplash

5. When?

When do you want to communicate your message? Suppose you want to communicate the results that will be published soon. In that case, it might be a good idea to first communicate the foundations of the topic with the target audience so that the results will be understood more clearly. Or, try not

Photo by Nhia Moua on Unsplash

to communicate your best results when the "hot topic" discussed on social media or the internet, in general, is another one – you might not get the attention you want.

It may be easy to communicate trendy topics such as artificial intelligence, climate change, green energy, but not impossible to communicate abstract fundamental research. Each communication task is different and needs a different strategy.

"Science is not finished until it's communicated" – Sir Mark Walport

But practically, how can we make sure the audience will understand the message?

If you want your audience to understand the message well, then try to explain in simple terms. While communicating to a broader audience or general public, apply the 6 "Cs" of the science popularisation techniques to your outreach activities. The 6 Cs are:

1. Clarity: Try to use the words that your target audience can understand. Do not use jargon. If you need to use acronyms, define them before. Researchers often do not realise that the general audience may not be familiar with the day-to-day words used within our (expert) networks.

2. Connection: Communication reaches a broader audience when you connect with

them. Often, using storytelling techniques or familiar examples yields a better reach.

3. Context: Try to communicate your message in a particular context to help the audience be aware of the scientific, social, or economic impact. How does your research benefit the target audience in their daily life?

4. Concreteness: Human beings like to see tangible things. Demonstrate your innovation to the audience through a prototype or animations, if you have, to create a more significant impact.

5. Colour: Including pictures, graphs, and/or schematics can engage the audience more. Relying on the images will allow the audience to picture the message and add colours to your communication.

6. Conversation: Often more than expected, the general public is interested in conversing with the scientists and would like to know more about their research. Make your communication as interactive as possible, encourage them to ask questions and wait for their response.

A successful outreach event will result in the learning of all the people involved in it: the person attending it and the person speaking.

Good luck with your learning from the audience.

Pradeep Eranti
University of Paris
MCAA Editorial Team
pradeep.eranti@inserm.fr

Photo by Wonderlane on Unsplash

Research

Photo by MAPAPAIMA

Detecting phytoplankton adaptation to nutrient limitation

A novel and complete microfluidic platform and a lab-on-a-chip that can successfully measure alkaline phosphatase activity (APA) was developed in the MSCA MAPAPAIMA project. We learn more about this from the scientist in charge, Mathias Girault.

Under the supervision of Jean-Christophe Baret, a professor at the University of Bordeaux (France) affiliated to the French National Centre for Scientific Research, MSCA Postdoctoral Fellow Mathias Girault set out to elucidate how phytoplankton can adapt to nutrient-limited conditions to survive.

The importance of understanding phytoplankton

Climate change is influencing the hydrodynamics of the world's oceans and has subsequently led to an increase in ocean stratification. Ocean stratification can trap phytoplankton in the nutrient-depleted surface layer. When there is a reduction in nutrient availability for phytoplankton, this affects communities of species as well as the structure of ecological niches. This is because phytoplankton are vital for the biological production of the oceans and are responsible for about 40 % of the inorganic carbon on our planet.

"In order to survive, some phytoplankton activate a set of extracellular enzymes called alkaline phosphatase. By using dissolved organic matter, this enzyme helps to diversify the phytoplankton's sources of phosphorus ensuring better survival when this nutrient is in short supply," explains Mathias.

While there are methods to measure APA with accuracy, none can do so in real time at the single-cell level. "In other words, no

experimental evidence can directly link the alkaline phosphatase enzyme activity found in a sample to an individual," notes Mathias.

Providing a solution forward

"In MAPAPAIMA, we developed a new microfluidic platform and a lab-on-a-chip suitable to measure the enzyme activity of phytoplankton at the single-cell level. By using this analytical method, we were able to for the first time compare the APA of phytoplankton revivified from a sediment core," highlights Mathias.

The project was able to uncover the inter- and intraspecific variabilities of APA and suggest that in a half-century timescale, two different species of phytoplankton may have undergone similar adaptive evolution to face environmental changes and acquire ecological advantages.

Mathias confirms: "The results obtained during the MSCA Postdoctoral Fellowship were the first steps in the detection of phytoplankton adaptation to the nutrient limitation.


Photo by Chokniti Khongchum on Shutterstock

Opening new doors

"I am proud to have managed my own research project and collectively achieved this MSCA project in a complex pandemic situation. I have initiated new collaborations and managed the interactions between all participants in MAPAPAIMA. All the members of this project were also very happy to see our efforts led to a publication dealing with the adaptation of phytoplankton in a high-ranking journal," reflects Mathias.

From a personal point of view, Mathias acknowledges that while his background is mainly as a phytoplankton ecologist, he is proud to have taken a part in the development of a new microfluidic platform. "I have learned a lot of new skills especially in instrumentation and high-speed image processing, but also in the way I can build interdisciplinary research programmes making use of new technologies across disciplines," adds Mathias.

The project's work provides invaluable insights into the future of the phytoplankton community and, from this, a greater understanding of what may lie ahead for our oceans and carbon fixation on Earth.

Jennifer Wills
MCAA Editorial Team

Research

Improving the security, privacy and safety of data sharing in robotic swarm operations

For the very first time, the synergy between swarm robotics and blockchain technology was explored in BROS, an MSCA project. Eduardo Castello Ferrer tells us more.

Having extensive experience and a passion for robotics, blockchain technology and complex systems, Eduardo Castello Ferrer took up the post of MSCA Postdoctoral Fellow in the Human Dynamics group at the Massachusetts Institute of Technology (MIT) Media Lab, working with MIT professor Alex Pentland.

"Our focus in the BROS project was to conduct research into the combination of swarm robotic systems and blockchain technology to implement new security, behaviour and business models for distributed robotic systems by using novel cryptographic methods," explains Eduardo.

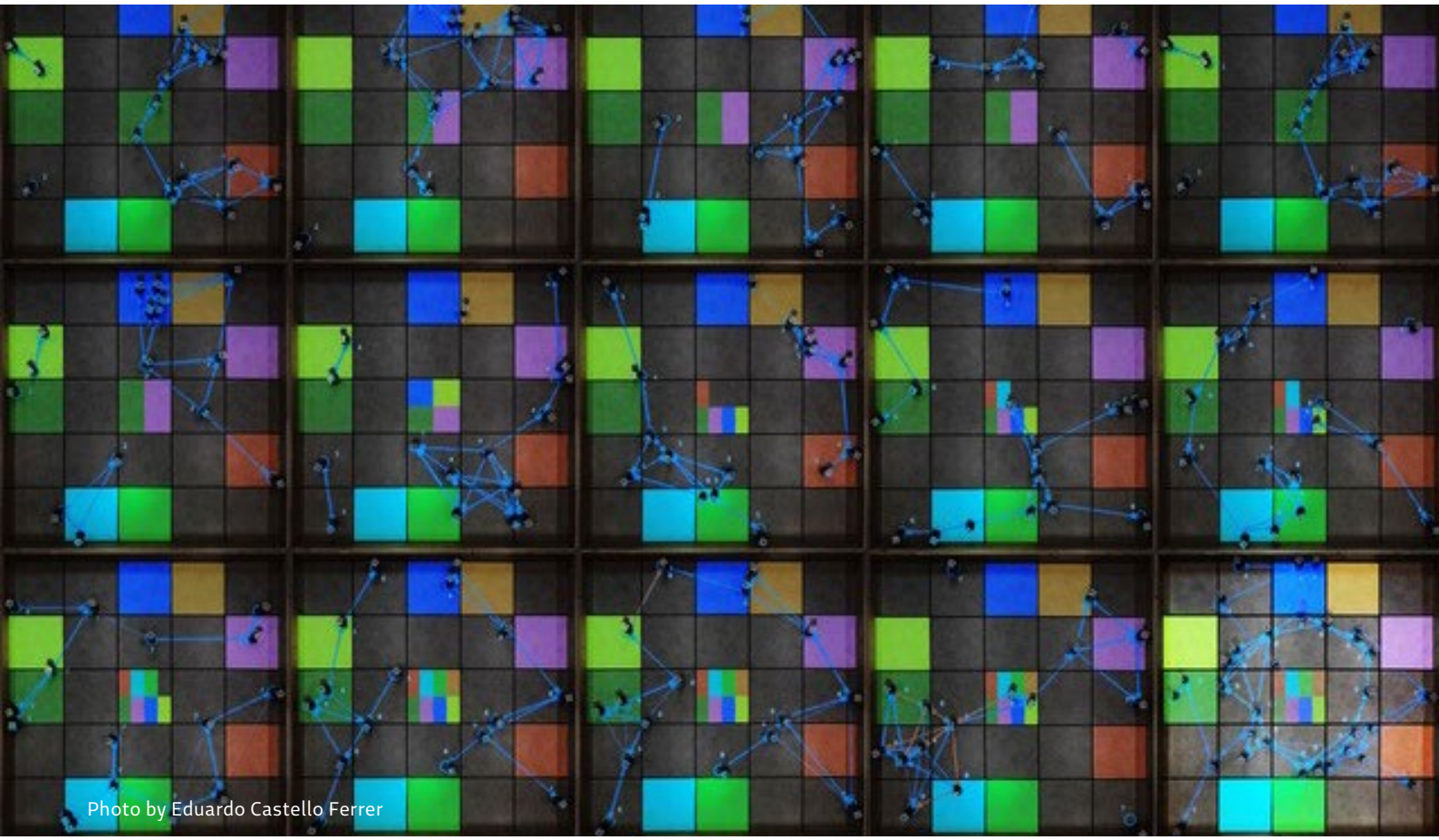

Photo by Eduardo Castello Ferrer

Photo by whiteMocca on Shutterstock

Combining two techniques to solve current problems

Swarms of robots are increasingly becoming more important in academic research and have the potential to revolutionise real-world applications such as logistics and transport systems thanks to the help of technological advancements like cloud computing. Researchers and engineers in the field, however, understand that the characteristics that make swarm robotic systems ideal for future applications like robot autonomy, collective emergent behaviour and decentralised control actually hamper the transfer of the technology from academic institutions to the public sphere of real-world problems. "It is great to have systems that have emergent capabilities, decentralised control, are fault tolerant, etc. However, when things go wrong, how do you stop such systems?"

"Additionally, I realised that nobody was talking about the necessary steps needed to bridge the gap between these two sides of the spectrum: Academia and industry. For instance, new security and business models need to be in place before any realistic deployment of the technology can take place," notes Eduardo.

This is where blockchain – an emerging technology that originated in the Bitcoin field – comes in. It offers much promise to provide the required capabilities to make robotic swarm operations more secure, autonomous, flexible and even profitable.

Key achievements of the project

"During the first two years of BROS, we designed, analysed and programmed several models and methods that combined blockchain-based technology with robotics software and hardware" highlights Eduardo. Then, during the last year of BROS, the developed models and methods were validated in real-robot systems through a series of realistic experiments.

"It turns out that blockchain-based cryptographic tools, for example, a Merkle tree which is a fundamental technology in the blockchain space, are a promising way to make swarms of robots more secure while keeping interesting properties such as modularity, emergent behaviour, fault tolerance, etc.," confirms Eduardo. Therefore, blockchain technology could help open the door to new technical approaches and business models that make swarm robotics suitable for various industrial applications.

"In other words, we have proven the viability of combining both techniques to solve current problems in the field from theoretical and practical perspectives."

As a new set of possibilities emerged from mixing the two technologies, the project realised that a community of researchers, scientists, artists, etc. had to be created from scratch. "We understood that the best way to create such a community was to organise a couple of academic events that could be used as a gathering point," outlines Eduardo. As a result, a new academic community in the field of blockchain robotics arose.

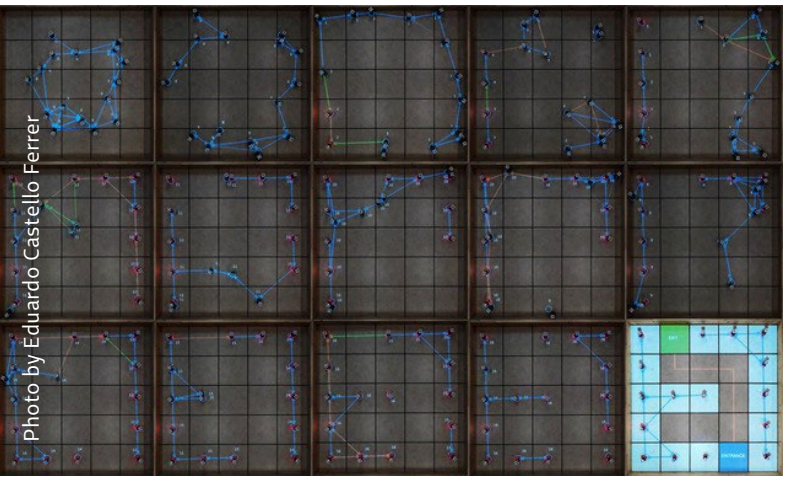
Photo by Eduardo Castelló Ferrer

The support to move forward

"During my MSCA Fellowship, which allowed me to pass the first two years at MIT, I was in contact with several research groups pioneering what we know now as the 'blockchain' ecosystem. I was really fortunate to spend time with such talented people because with their help, I developed the theoretical models of the BROS project," emphasises Eduardo. The MSCA Fellow was then able to test the developed models in real-world robots at the Université libre de Bruxelles. "I think the combination of theory and practice in two different continents was key to the success of the project."

Since the completion of the project, Eduardo has published high-quality work that can be found on his website. He has also organised the first public academic events in the field of blockchain-based technology for robotics. "From this, my citation level increased more than fourfold. I will now start to look for my next position in academia as a researcher by making use of the network of contacts created during the project."

Jennifer Wills
MCAA Editorial Team

Research

MANNA: Fading into the end of the project

The MANNA project is slowly coming to an end. Together, we discovered the projects of all the researchers involved; now it is time to draw some conclusions together with the coordinator of the project, David Eckersall.

The European Joint Doctorate in Molecular Animal Nutrition (MANNA) is an EU network whose mission is to provide a Double Doctorate-level training programme, valid throughout Europe, on innovative technologies applied to animal science and nutrition. The MANNA Joint Doctoral project is an MSCA Innovative Training Network funded by the European Commission under the Horizon 2020 programme. This is the last piece of a series of articles on the MANNA doctorate, through which we discovered in detail its projects and the related early-stage researchers (ESRs).

However, now it's time to draw some conclusions together with the Project Coordinator, David Eckersall, who accepted to be interviewed and shared his personal view on these last three years of the MANNA project – he also shares a piece of advice you do not want to miss!

Can you guide us through the beginning of the MANNA project?

The European Joint Doctorate in Molecular Animal Nutrition (MANNA) started in 2018 which seems an age away, before the world was affected by the COVID-19 pandemic, which has had such a severe effect on mobility of researchers in and around Europe. Such mobility is one of the key ingredients of the Marie-Skłodowska Curie Innovative Training Networks of which our project is a beneficiary.

After award of the project designed to create a European Double Doctorate-level training programme applying innovative technologies to animal science and nutrition, the ESRs were recruited by an exhaustive process such that the 11 candidates were selected and ready to start their journeys of discovery and endeavour by the time of our core training meeting held close to Glasgow on the shores


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of Loch Lomond. The core course was the precursor for the close collaboration between the universities in the project from Glasgow (Scotland), Milan (Italy), Bonn (Germany), Barcelona (Spain), Zagreb (Croatia), and Košice (Slovakia) and provided the first opportunity for the ESRs to meet, not only the assembled supervisors, but also non-academic partners and most importantly the other ESRs. Internal communication by Twitter and Facebook was established to ensure the ESRs were in contact with each other from the start, but were also able to communicate their research to a broader public.

The second year progressed very well, didn't it?

The following year of 2019 was the calm before the storm and MANNA progressed with ESRs learning the basis of their individual projects, interacting with their primary supervisors, plentiful consultation with their secondary supervisors and both universities of their double PhD degree. The MANNA project has an emphasis on training in scientific and related aspects for future career options and ESRs accomplished much generic instruction in varied areas not only of technology but in data analysis, dissemination, and public engagement. The year was crowned with the first MANNA Summer School in Lodi hosted by the University of Milano (Italy) where OMICs technology applied to animal nutrition was the focused topic. Updates on the progress of the individual ESR projects were well received by supervisors and the external examiners board alike. Little did we know of the horrors lying ahead for research and training that relied on mobility across the continent.

The horror is called pandemic. It affected basically every single researcher... What happened to the MANNA consortium?

The following year of 2020 will be remembered as the year of COVID affecting everyone and has had a major impact on the MANNA project, though through remarkable resilience of the ESRs it is likely that the plans for their double PhD degrees though necessarily modified and extended in time frame will still come to fruition. The effects on MANNA have been manifold, from the initial problems of a complete shutdown of transport between countries so that ESRs were faced with months of home working without access to laboratories and not located in the most appropriate locations. Zoom meeting becoming the norm for all meetings, not just for management meetings but also for student–supervisor meetings and for training courses being given across Europe. Ultimately the second Summer School scheduled to be in Dubrovnik (Croatia), hosted by the University of Zagreb, was also turned into an online meeting. Planned placements with the non-academic partners were severely

curtailed. Perhaps the most affected aspects of the COVID pandemic were that travel to major conferences by the ESRs was not possible; for example, a whole session of the European Association for Animal Production Congress 2020 was devoted largely to MANNA and became an online event rather than being held Lisbon (Portugal).

What's the situation now?

By 2021, laboratory work had restarted under the controlled conditions of COVID checks and regular Zoom meetings have demonstrated that the ESRs have been noticeably resilient, with limited but essential travel between supervisors' laboratories being undertaken with multiple infection testing and quarantine as required. Planning for the third Summer School in Bonn (Germany) has assumed that international travel will not be restored sufficiently for a face-to-face meeting, but ESRs have been making steady progress towards the completion of their theses and graduation with their PhD will be a notable feat during the time of COVID.

The project is coming to an end, and we have seen how difficult it was to manage a pandemic. However, what do you expect to obtain in terms of results from the MANNA projects?

From the MANNA project the priority result is that all ESRs will become highly competent scientists and will graduate with dual degrees from the two universities where they are registered. To accomplish this, each project is expected to produce [some projects already produced] novel and interesting findings that can be published in leading scientific journals. On another level the MANNA project expects to provide the scientific and related training such that all of the ESRs will go on to have a successful career in scientific or industrial research and contribute to our knowledge of animal health and nutrition and especially in the use of OMICs technology at the cutting edge of science to these areas. Predicting exact results that will come from the MANNA projects is a fool's errand for supervisors as well as students. Indeed, the most interesting results are those we do not expect that can then lead on to new hypotheses and further experimentation, so we are in the realm of seeking out both known unknowns and also unknown unknowns. We fully expect there to be a raft of experimental results which by the end of MANNA will make a major contribution to European research.

To conclude this brief interview, which advice would you like to give to an early-stage researcher for a brilliant career?

If you read and understand the literature to be aware of what research has gone before; understand all the methods relevant to your research area; recognise and answer gaps in the current knowledge to seek new questions to address; learn to apply statistics to ensure significant results; develop expertise in writing papers in English for publication in international journals; become adept at making incisive conference presentations, but do not overestimate the knowledge of the audience; invent novel methods of investigation or analysis; be aware that strange results may lead to new discovery but confirm a new finding before dissemination; build a network of international contacts; contribute to the organisation of national and international associations; do not believe everything your elders and betters say; acquire a mentor who will provide an invisible hand in your academic career and who will glory in your progress; look forward to going to the laboratory every day, then you will have a great and brilliant career.

Ruben Riosa
University of Bonn, Germany,
and University of Glasgow, Scotland
MCAA Editorial Team
rriosa@uni-bonn.de

Research

The MedRoute project: Multicultural societies past and present

Meet MSCA Fellow Viviana Tagliaferri, coordinator of the MedRoute project that explored cultural pluralism in four early modern port cities in the Mediterranean: Izmir (Turkey), Valletta (Malta), Livorno (Italy), and Marseille (France). Viviana and her team investigated the way foreigners used their physical appearance to express their cultural belonging and the role contemporary political authorities played in supporting or sanctioning expressions of otherness.

Photo by Viviana Tagliaferri

A lifelong passion for history

I was born in Frosinone, in the very heart of the Ciociaria region (Lazio), in central Italy.

Since I was a child, my love for the past has been nourished by the extraordinary history of my birthplace, with its castles, abbeys, and fortified 'borghi'.

After the completion of my PhD at the University of Florence (Italy), I was active first in the United Kingdom as a Visiting Fellow (SOAS; King's College London) and Research Assistant (Royal Holloway), and afterwards in Greece as a Postdoctoral Researcher (Institute for Mediterranean Studies – FORTH).

I have always been keen to experience new academic environments, an interest that helped me pursue an international academic career. One of my passions is to learn languages: I am fluent in English and Greek, I have a good knowledge of French, an understanding of Spanish, and a very basic knowledge of Turkish. My favourite place to work is The National Archives in Kew (UK), a magical place also for its exceptional accessibility to a wide audience of users.

I strongly believe in the necessity of making people involved in historical knowledge, giving them opportunities to smell, touch, and read the traces left by the passing of time.

Pragmatism – a key ingredient in well-functioning multicultural societies

The idea for the MedRoute project came in the phase of rethinking my doctoral thesis for its publication as a book. I was interested in giving more space to material aspects in the historical analysis of the Mediterranean. How we live and how we think are closely related, and while historians investigate ways of living that no longer exist, I wanted to explore the everyday aspects of these past lives.

In early modern Europe, Mediterranean port cities were highly plural spaces in which diversity had a place as well as a concrete role. In fact, the MedRoute project demonstrated that minorities and migrants were a key part of the cities' economies and a crucial factor in making them centres for the exchange of ideas at the time. Modern societies could learn that multicultural policies enhance urban welfare and create a space where people are accustomed to difference, and that this idea does not necessarily imply acceptance or tolerance of differences – but pragmatism.

Considering cultural differences as a set of practices that give sense to daily life is a way of familiarising ourselves with what is unknown, rendering diversity concrete and less frightening. By examining the histories of the possibility of cultural coexistence, contemporary European society could find paradigms for answering issues linked to mass migrations and a way to counteract the increase in populist movements in Europe.

Sharing project insights as broadly as possible

A documentary, 'MEDROUTE: Tales from the Ports', is currently at its last editing stage and I am truly excited about it! It has been produced together with filmmaker Ana Shorter and will be presented at the conference "Mediterranean Diasporas. Settlements of Religious Minorities in Exile" organised by Bruno Pomara that will be held at the Universidad de Alicante (Spain) on 28-29 October 2021. Ana is an amazing script writer and editor, and has successfully translated part of my research into stories available to everyone.

A project in a Greek secondary school was carried out in April 2021 by linguist Yiannis Fragkiadakis together with school teacher Dimitris Mavreas. This was another fascinating way to disseminate the project outcomes using a different register to reach a different audience.

Photo by Antonio Guillem on Shutterstock

In general, although the MedRoute grant agreement ended 12 months ago, it is still a very lively project and I am very proud of it.

Importance of the MSCA Fellowship

Being an MSCA Fellow was one of the most amazing experiences I have ever had. It gave me the opportunity to develop a more ambitious research path, experience a non-European academic environment, and continue my academic and linguistic training. It also enabled me to move to the United States with my husband and start a new phase of my personal life.

The Marie Skłodowska-Curie Actions programme (MSCA) is an ambitious and generous programme that introduces the Fellow to new opportunities without the anxiety of being too "pushy" for the Fellow's financial capacity. The MSCA thinks and plans big, and this is how research should be, also in the field of humanities.

I feel an immense gratitude for having been given this opportunity. My MSCA Fellowship has made a big difference for me, for example in the elaboration of my theoretical approach which I have expanded in a recent ERC Consolidator Grant application.

Cecilie Jensen
MCAA Editorial Team

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Accessibility Statement

The MCAA believes in a society based on diversity. A society where diversity is the norm, not a deviation. A society where diversity is a strength, not a weakness. Access barriers are created by a society that does not acknowledge the value of diversity. Diversity and access are foundational elements of the flourishing of the research endeavour.

As a community of researchers, the MCAA is committed to increase the accessibility of its products, services, and events. Under the leadership of the Editorial Team of the Communication Working Group, with the support of other Working Groups and the MCAA Board, the MCAA has been promoting a series of actions aimed at increasing the inclusivity of its community and reducing access barriers.

Since the June 2021 issue, the MCAA Newsletter has a new layout. The new design should make the reading experience more accessible by reducing a number of barriers our readers may face.

The new layout complies with many requirements of major print and digital accessibility standards and guidelines. For example, background and foreground colours were selected and paired so as to fulfil the AAA level requirements for colour contrast devised by the Web Content Accessibility Guidelines (WCAG 2.1). Colour selection and pairing also complies with requirements for colour blindness. The text is not justified in order to keep the spacing between words consistent and regular in the entire text. Line spacing and font size were revised and increased too. Each macro-section is identified by a different colour so as to provide the reader with a map of content organisation. The layout adopts TestMe, a font inspired by the Design for All principles. Last but not least, the PDF file now complies with PDF accessibility requirements and can be used by screen readers.

Editorial information

About

The MCAA Newsletter is the main communication channel for and about the MCAA community. It is a publication venue for science communication and public outreach. Its main aim is the dissemination of information about past and current MSCA projects, as well as activities of MCAA Chapters and Working Groups, events, and members' achievements.

The MCAA Newsletter is a registered publication (ISSN 2663-9483) in the Royal Library of Belgium (KBR). It is published by the Marie Curie Alumni Association, Kunstlaan 24, 1000 Brussels, Belgium.

Instructions for submission

Authors interested in submitting an article should read the Editorial Guidelines and the Editorial Rules available on the MCAA Newsletter website. Articles should be submitted **exclusively** through the form available on the MCAA Newsletter website.

General requests should be sent to: news@mariecuriealumni.eu

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