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Foreword

Dear MCAA Members,

We are pleased to present the very first issue of the Marie Curie Alumni Magazine – IRRADIUM.

The name of the magazine, IRRADIUM, is a nod to Marie Skłodowska-Curie's great discovery (Radium) with a suggestion of irrigation and radiation – rather fitting terms for a publication that we hope will sow new ideas through the sharing of information ... we hope that you like it!

The aim of the MCAA magazine is to provide an overview of the purpose, activities and achievements of the MCAA. To make navigation user-friendly, it has been divided into seven themes:

- MCAA
- Actions:
- Projects
- Funding
- Events
- Research
- Alumni

Here is an overview of this first issue:

- **The MCAA has been up and running for one year!** We have created a timeline which sums up the key developments over the MCAA's first year. You'll also find interviews with Board members and Chairs of Chapters and/or Working Group: Snežana Krstić, Axelle Viré, Wuraola Akande, Riccardo Biondi and Shikar Aggarwal.
- **Horizon 2020 – A 'societal challenge' in the spotlight – Climate Action, Environment, Resource Efficiency and Raw Materials.** An introduction to the European Commission's tools in the fight against climate change.

- **Progress at the Lima United Nations Climate Conference, Next stop Paris.** Presents what was at stake in Lima, and how the results set the scene for climate change talks in Paris.
- **"Two voices" – Gender issues in research.** Two members of the MCAA, Gianna Avellis and **Antonia Hadjimichael**, discuss the state of play for gender issues in research and how concerns could be tackled.
- **Opportunities after a Marie Curie Fellowship and the coordination of a Marie Curie project – Why not a Nobel Prize?** A look at success of Stefan Hell and Edvard I. Moser, awarded Nobel prizes in chemistry and in medicine. What are the secrets behind their success?
- **The benefits of Co-funding – Beatriu de Pinós Programme.** An Alumnus, Ferran Macia, explains the advantages for a researcher of diversifying funding sources.
- **Discover a Marie Curie project – FlowAirS.** This project aims to reduce noise pollution. Learn more about it by reading interviews with Francesco Sanna, Marie Curie Fellow; Yves Aurégan, the coordinator of the project; and Joachim Golliard, Sanna's supervisor.
- **Looking forward to being awarded a Marie Skłodowska-Curie Action.** The Alumnus Christos Apostolakis presents the project he hopes will be funded as an MSCA under Horizon 2020.

Yours,

The MCAA team

MCAA News section

The Marie Curie Alumni Association (MCAA) has been running for one year!

The MCAA Board was officially elected during the first MCAA General Assembly, which took place on 23 November 2013 in Brussels, Belgium. Below is an overview of what has happened in your association since then. Check out the timeline!

February 2014: The MCAA is a legal entity

In February 2014, the MCAA was established as a non-profit organisation (an AISBL – *Association Internationale Sans But Lucratif* – under Belgian Law. The head office is registered as Avenue des Arts 24 in Brussels, Belgium.

April 2014: Definition of Association articles and constitution of the association

A first version of the Association articles was presented at the first General Assembly on 23 November 2013. Following this, the articles were further revised with the support of Belgian lawyers, and in cooperation between the European Commission and the MCAA Board Members. On 17 January 2014, the deed of constitution was signed. Following these legal formalities, the royal decree recognising the MCAA was signed on 7 February. On 7 April, the association's charter was published in the [Moniteur Belge](#).

June 2014: the MCAA attended ESOF 2014 in Copenhagen

Snežana Krstić (Chair of the MCAA), Roy Someshwar (Treasurer), Anett Kiss (Grants and Awards Working Group Lead) and Maria-Antonietta Buccheri (Secretary) represented the Marie Curie Alumni Association at ESOF 2014, in Copenhagen, Denmark. Members of the association organised activities during this six-day event, such as a poster session, the "We built bridges" promotional event and an MCAA internal meeting. An MCAA stand displaying leaflets and postcards was also available for the entire duration of the event, from 21 to 26 June. You can read more about this in the [special coverage](#) of the MCAA at ESOF 2014 in the fifth MCAA newsletter.

August 2014: Creation of new Working Groups and Chapters

As of August 2014, the MCAA has new Working Groups and Chapters, as follows.

Seven Working Groups:

- Grants and Awards (chaired by [Anett Kiss](#))
- Events and Networking (chaired by [Francesco Sanna](#))
- Communication (chaired by [Wuraola Akande](#))
- Policy on Successful Researchers (chaired by [Marco Masia](#))
- Information and Data access (chaired by [Mauricio Manfrini](#))
- Internal Governance and Chapter Management Team (chaired by [Kiran Kumar Chereddy](#))
- Gender Equality for Mobile Researchers in Science (GEMS) (chaired by [Giovanna Avellis](#))

Thirteen Chapters:

- Austrian Chapter (chaired by [Riccardo Biondi](#))
- BeNeLux Chapter (chaired by [Axelle Viré](#))
- Croatian Chapter (chaired by [Robert Vianello](#))
- Israeli Chapter (chaired by [Sharon Snitzman](#))
- Balears Chapter (chaired by [David Sanchez](#)) Pars & Île-de-France chapter (chaired by [Andrea Resmini](#))
- Sicily Chapter (chaired by [Luigi Caranti](#))
- United Kingdom Chapter (chaired by [Enrique Jose Gallego Colon](#))

MCAA News section

The Marie Curie Alumni Association (MCAA) has been running for one year!

- Northern Italy Chapter (Chair to be elected)
- Spain/Portugal Chapter (Chair to be elected)
- African Chapter (Chair to be elected)
- Nordic Chapter (Chair to be elected)
- Argentina Chapter (Chair to be elected)

October 2014: The MCAA has a logo!

A variant of the Marie Curie Programme was set up as the MCAA official logo:



The Office for Harmonisation in the Internal Market (OHIM) issued the registration certificate in October 2014.

November/December 2014: the MCAA communication Working Group (CWG) launched a video competition

Until 17 November, members had the opportunity to vote for the video they considered to best illustrate excellence achieved by Marie Curie Alumni. The winner is the producer of the "[GNSS Meteorology: Explained](#)" video, which received the largest number of votes from Alumni and the Jury combined. The second prize goes to the producer of "[Getting Students Engaged in Science!](#)".

Throughout 2014: Contacts with several external organisations

The MCAA has established contacts with external organisations to explore possible cooperation and synergies:

- [Science Europe](#):
- [European Association of Research and technology Organisations \(EARTO\)](#)
- [European Cooperation in Science and Technology \(COST\)](#)
- [European Science Foundation \(ESF\)](#)
- [League of European Research Universities \(LERU\)](#)
- [Erasmus Student Network \(ESN\)](#)

The MCAA is currently working on several follow-up actions with these organisations, including cooperation in research, reciprocal dissemination of information or joint promotion through websites and social media platforms.

As you can see, 2014 has been fruitful for the MCAA, but much more is coming... stay tuned!

Interview

Snežana Krstić
MCAA Chair

- 1. Ms Krstić, you were elected Chair of the Association on 23 November 2013. How would you describe your first year?**

The first year is always the most difficult and demanding period for any association, especially for the Board and Executive Committee. We were faced with a huge amount of administrative work. I approached my first year with much enthusiasm and hard work, and then joy after every success that the association achieved. Besides the administrative work, I invested much energy in other activities for the benefit of our members, and contributed to the visibility and reputation of the association. I delivered presentations at several events and organised MCAA sessions at ESOF, giving our members an opportunity to present their work and achievements.



Snežana Krstić

- 2. How did you organise your work and collaboration with the other Board Members?**

The work with other Board members was organised through day-to-day e-mail communication, Executive Committee and Board meetings and the dedicated working group.

- 3. Would you like to highlight a particular achievement by the Association?**

Although we are a very young association, I think that we accomplished a lot in 2014. We have officially registered the MCAA under Belgian law and solved many administrative issues that come with the early days of a new association. With only a modest budget available, we succeeded in implementing many activities that contributed to the development of the association and its members, establishing structure (Chapters and Working Groups), growing (we have almost 6 000 members now!) and providing career development opportunities for our members (different types of individual grants). Our active participation at ESOF, both at the MSCA satellite event and the ESOF main event, certainly deserves a special mention. Finally, I think one of our most important achievements was the creation of a vibrant community, ready to communicate, cooperate, share knowledge and information and take part in our activities.

- 4. What activities are foreseen for the MCAA for 2015?**

The first large activity will be the General Assembly in Porto in February 2015. Together with our Events and Networking working group we are also planning other events. We have also already been invited to take part in important European and international events. I believe that this year we will be more active in the policy arena, outreach and external cooperation, and that we will create more opportunities for career development and professional growth among our members. Geographical Chapters will continue or launch activities, and we also expect opportunities to establish new chapters.

- 5. What are your expectations for the Association in 2015?**

Growth in all directions and success! I expect that we will start collecting the fruits of our hard work and efforts invested in 2014.

Interview

Axelle Viré

Vice-Chair of the MCAA, Chair of the BeNeLux Chapter

- 1. Ms Viré, you were elected Vice-Chair of the Association on 23 November 2013. How would you describe your first year?**

The first year of an association is always a challenge because we need to set the ground for a lot of new things. It is also difficult to assess how the members will engage with our new activities. Thus, this is very much a learning curve. However, I am glad to say that the Board members are highly motivated to make the association a success and we work hard together. For example, we spend a lot of time discussing planned activities and allocating funding that benefits the career development of our members.



Axelle Viré

- 2. How did you organise your work and collaboration with the other Board Members?**

As a Vice-Chair, I am mainly involved in the tasks of the Executive Committee. For example, planning the long-term strategy of the MCAA, voting on the creation of working groups and chapters, and deciding on the allocation of micro-grants to members. We also organise the annual general assembly and discuss events in which the MCAA could participate. In terms of collaboration, we usually split the workload between ourselves (always involving at least two persons) and then reach a final decision after discussion with the entire Committee.

- 3. You are also in charge of the MCAA BeNeLux Chapter whose kick-off meeting took place on 12 September in Brussels. Can you tell us more about this event?**

I am very excited to be given the opportunity to chair the BeNeLux chapter. This is a great chance to create some synergy between members in a regional area. The kick-off meeting took place in Brussels and was a small-scale event. The main objectives of the meeting were to get to know each other, clarify the objectives of the chapter, and discuss ideas for activities in the coming year.

- 4. What activities do you foresee for the Chapter in 2015?**

We are currently preparing a workshop for the entire BeNeLux region. This will be our main event for 2015. We are also encouraging Alumni from the same university (or area) to meet informally for a drink. The chapter actually has funds to support such initiatives. So do get in touch at benelux.chapter@mariecuriealumni.eu if you are interested!

- 5. What are your expectations for the Association in 2015?**

My wish for 2015 is that we increase the overall number of members and increase the number of members actively involved in the working groups and chapters. In my opinion, the success of an association relies heavily on the involvement and motivation of its members. There are many ways to get the voice of the members heard, to improve their career development, and to start new collaborations with other Alumni. These are opportunities not to be missed!

Interview

Wuraola Akande

Ordinary Board member, Chair of the Communication Working Group, African Chapter

1. Dr Akande, you were elected ordinary Board member on 23 November 2013. How would you describe your first year?

Dealing with different groups of people from different cultural backgrounds with varying levels of experience, and taking decisions from distant locations, has made my first year on the Board of MCAA challenging and interesting.

2. You are also in charge of the African chapter of the association. Can you tell us more about its organisation and plans?

The current information about the registered MCAA members on the web portal shows that less than 1% of its registered members are either Africans by nationality or by residence. This low participation of Africans in Marie Curie Actions might be due to lack of awareness of Marie Curie programmes, hence the need to create an African chapter. This would help to foster greater public awareness of European research and foster global relationships within the worldwide research and innovation community. There should also be particular emphasis on the Marie Curie experience of international and inter-sector mobility.

The African chapter currently comprises six MCAA members who are resident within Africa and will remain resident for at least the next 12 months. The chapter, despite transportation and communication challenges, aims to cover African countries from different sub-regions, such as West, East, North, Central and Southern Africa.

We currently have three members in Southern Africa. We also have one in Tunisia and another in Egypt; and my humble self in Nigeria, West Africa.

Briefly, the plans are to increase awareness and visibility of the MCAA at a regional level and beyond, by having special corners at international conferences held in Africa. We will be writing articles for African

newspapers and magazines, organising seminars for potential students and early career researchers at master's level, PhD and postdoctoral, and explaining the opportunities within Marie Curie programmes – and what these opportunities may lead to professionally and in terms of personal development. The chapter also aims to increase networking, support initiatives, and share hints and tips between alumni within a geographical area, ultimately enhancing the MCAA identity in Africa and its sub-regions.

I represented the chapter at the 8th International Annual Conference and Workshop of the West African Research and Innovation Management Association, in November 2014, at Elizade University, Ilara Mokin in the Ondo State of Nigeria.

3. You are also the responsible for Communication Working Group CWG). Can you tell us about the Communication Working Group's activities over the past year?

Activities include raising funds to increase the networking and gatherings of MCAA members in various countries. These funds are still available for any interested members. Additional information can be accessed on the MCAA web portal.

An editorial guidance-call was also initiated by the CWG to support the publication of stories and news reports – in the MCAA newsletter – from MCAA members with personal experiences or publishable reports, during, pre/post MC fellowship. A monthly prize of €50 in the form of an Amazon voucher goes to the best article submitted.

A video competition was also organised by the CWG and the person behind the winning video was awarded €150, while the runner up received €50 in Amazon vouchers.

Interview

Wuraola Akande

Ordinary Board member, Chair of the Communication Working Group, African Chapter

4. Which activities are foreseen for the Communication Working Group in 2015?

The CWG members are working hard to meet the needs and expectations of the MCAA members by producing and providing innovative, high quality, consistent communications (both online and in print) to MCAA members. As well as informing them about the progress of the Association and many other relevant issues. In 2015, we intend to continue with all these activities and improve on all our programmes; the communications resources include newsletters, magazines, outreach activities and social multimedia. So watch out!

5. What are your expectations for the Association in 2015?

We will continue to intensify the MCAA's activities by increasing awareness about the organisation in Europe and in various countries of the African sub-regions and beyond.



Wuraola Akande

Interview

Riccardo Biondi

Chair of the MCAA Austrian Chapter

- 1. Mr Biondi, you attended last year's MCAA General Assembly, where the Association's Board was elected. How satisfied are you with the Association's activities over the first year?**

Some steps agreed at the first meeting have already been implemented and I feel the Working Groups and Chapters are working quite well within their small communities, and I really appreciate the work done by Snezana. However, I believe that communication between the Board and the MCAA members could be improved as the newsletter is not enough. There should be more interaction and more transparency regarding internal processes.

I remember seeing some questions posted in the MCAA portal that are still waiting for an answer (at least publicly). I would still like to know who approved the statute and when. Some procedures listed in the statute were not followed at all at the first GA. Furthermore, I do not see too much activity, interaction or discussion on the portal or in the Facebook group. However, I remain optimistic and hopeful that these issues will be resolved.

- 2. You are in charge of the MCAA Austrian Chapter, whose kick-off meeting took place on 16 October 2014 in Graz. Can you tell us more about this event?**

The kick-off meeting was really helpful and successful. It was held at the University of Graz with administrative support from the Wegener Center for Climate and Global Change. Out of 27 members of the Austrian Chapter, 12 registered for the event and 10 came – from 3 different cities (Graz, Linz and Vienna) and representing 8 different nationalities. Before starting the meeting we gave an interview to the University of Graz press service presenting the MCAA objectives and focusing on the MCAA Austrian Chapter objectives. The first point of our activity was the “involvement of MC Alumni in the Austrian Chapter”. We all agreed to contact the National Contact Points and the European Commission to request that they send a motivational e-mail to all the MC Alumni located in Austria to encourage them to join our group. We then discussed how to attract new MC Fellows and how to support them. We decided to create a Webinar and to publish short articles in the Uni-Webnews and campus newsletters. We also



Riccardo Biondi

agreed to support all the national institutes in organising seminars to advertise the Marie Curie Actions, and to assist them with a panel of experts.

Another point for discussion was “internal and external communication”. We think that communication is fundamental to making a group really active, for this reason we created a [Facebook group](#) and a mailing list. For external communication we elected two people in charge of maintaining contacts with local and national newspapers.

After lunch (which included a giant Pretzell!) we planned for 2015 and worked out the details for the next meeting.

- 3. What activities do you foresee for the Chapter in 2015?**

There will be another Chapter meeting in spring (the date has not yet been decided) in Vienna. We will participate as panel experts at seminars organised by each institute to advertise the Marie Curie Actions. We will also create a webinar for future MC Fellows, and present the MCAA at the European Geophysical Union (EGU) conference in Vienna in collaboration with the “Events and Network” Working Group. We also hope to publish articles in local and national newspapers to advertise the MCAA Austrian Chapter. It's likely we will hold another chapter meeting in the autumn.

- 4. What are your expectations for the Association in 2015?**

I expect that the next General Assembly will be a real MCAA members' assembly, where we can really discuss the association's issues and needs.

I hope that the good work already achieved by the Chapters will ensure MCAA members are active and increase collaboration.

Interview

Shikar Aggarwal
MCAA Northern Italy Chapter

1. Mr Aggarwal, how satisfied are you with the Association's activities over the past year?

It's been more than a year now since I became associated with the MCAA through its website. As a member, I have always been aware of the various congresses, activities, grants and competitions the association offers for its members, and its efforts to increase networking among registered members through online forums. The association has grown enormously from a small junta of people to now more than 5 000 researchers from all fields. I am very satisfied to witness the growth of the association as well as the networking opportunities it offers through its social and online channels.

2. You are in charge of the MCAA Northern Italy Chapter, whose kick-off meeting took place on 28 September in Turin. Can you tell us more about this event?

The MCAA-NI chapter started with the aim of increasing the networking of Marie Curie researchers among themselves and with renowned researchers and associations from various universities in Italy, sharing opportunities and improving the image of MCAA as such.

The kick-off meeting – our first event took place in the Conference Hall of EDISU Residence Olimpia, and we later visited the National Cinema of Museum (Mole Antonelliana) for food and drink. There was much enthusiasm from Fellows from all regions of northern Italy and Italians abroad (in the city for another Marie Curie event that day) and in total 30 members attended, including group leaders (co-ordinators and participants of ITN network). The Fellows had ample opportunities to network as well as to talk to group leaders, picking up essential tips how to apply for grants and write winning proposals. Some of the Fellows also discussed job opportunities with other group leaders present. Participants also held a discussion on budget and future activities.

Participants discussed the problem of not every member being able to attend activities organised in different cities due to their professional and personal commitments. We decided that each co-founding member will take responsibility for his/her city and will



Shikar Aggarwal

organise a networking activity in that city to engage Fellows from all areas of the chapter, as well as the distribution of funding.

3. What activities do you foresee for the Chapter in 2015?

Considering the very high cost of living in Italy and the funds needed to organise an event, we are planning a few small events in each regional city, with one big event: the Chapter General Assembly. The regional events will include a networking hang-out (dependant on approval of some additional MCAA grants) and a grant proposal-writing workshop. The chapter is also in talks with the university administration and other student bodies such as the Erasmus Student Network, TEDxTorino and cultural organisations on the organisation of specific activities and shared costs. The chapter envisages engaging Fellows through its social network.

4. What are your expectations for the Association in 2015?

I expect the association to grow, with more members registering and more events, job fairs and funding opportunities organised. This will help to establish more chapters in different regions and to reach yet more Fellows. I definitely think that the association is going in the right direction and has done a commendable job until now. Kudos to the Board and the Management team!!!!

Research

Horizon 2020 - A 'societal challenge' in the spotlight

Climate Action, Environment, Resource Efficiency and Raw Materials

Climate and environmental issues remain high on the EU agenda, with global warming representing one of the main threats for the coming decades. Global leaders met recently in [Peru](#) to debate potential solutions. A new agreement will be adopted in 2015, at the [Paris climate conference](#), and implemented from 2020. At the EU level, the framework programme for research and innovation – [Horizon 2020](#) – is funding the study of solutions to assure environmental integrity, resilience and sustainability.

Global Context

Humans influence the climate and the Earth's temperature by emitting greenhouse gases. These gases are responsible for man-made global warming.

Scientists have measured that the current global average temperature is 0.85°C higher than it was in the late 19th century. They have established that an increase of 2°C compared to the temperature in pre-industrial times would lead to the risk of dangerous and possibly catastrophic changes in the global environment. The international community has therefore recognised the need to keep warming below 2°C, and this threshold is taken into consideration by Horizon 2020 through its categorisation of "Climate Action, Environment, Resource Efficiency and Raw Materials" as a societal challenge.

Priorities under Horizon 2020

Horizon 2020 reflects the policy priorities of the [Europe 2020 strategy](#), which aims to reduce greenhouse gas emissions to 20% (or even 30%, if the conditions are right) lower than 1990 levels, to have 20% of all energy consumed coming from renewable sources, and to increase energy efficiency by 20%.

Horizon 2020's challenge-based approach will help Europe meet these objectives.

The objectives of the Climate Action, Environment, Resource Efficiency and Raw Materials challenge

The challenge is to keep global warming below 2° C, but to do this while increasing European competitiveness and raw materials security, and improving wellbeing.

Research and innovation funded under the heading of this challenge pursue the following objectives:

- achieving a resource- and water-efficiency and a climate change-resilient economy and society;
- protecting and managing natural resources and ecosystems in a sustainable way;
- supplying and using raw materials in a sustainable way, in order to meet the needs of a growing global population within the sustainable limits of the planet's natural resources and eco-systems.

Activities cover the following areas:

- fighting and adapting to climate change;
- protecting the environment, sustainably managing natural resources, water, biodiversity and ecosystems;
- ensuring the sustainable supply of non-energy and non-agricultural raw materials;
- enabling the transition towards a green economy and society through eco-innovation;
- developing comprehensive and sustained global environmental observation and information systems;
- cultural heritage.

Research

Horizon 2020 - A 'societal challenge' in the spotlight

Climate Action, Environment, Resource Efficiency and Raw Materials

Funded projects

Under the previous [Seventh Framework Programme](#) (FP7), projects tackled climate changes threats. Some provided significant results:

- The [AMAZALERT project](#) (2011-2014) proposed an Early Warning System for detecting any imminent irreversible loss of Amazon ecosystem services and key policy recommendations.
- The [AMPERE project](#) (2011-2014) explored mitigation pathways and associated mitigation costs under technology and policy limitations, and evaluated model differences and the relationship between model results and historical trends.
- The [PREPARE project](#) (2010-2014) developed advanced strategies to meet the challenges in the water supply and sanitation sectors anticipated as a result of climate change.

Materials: actions aim to support businesses in developing and bringing to the market eco-innovative solutions, and to encourage their take-up by public authorities in their procurement practices.

Diverse calls have already been published in these three categories. Three will remain open until 10 March 2015:

- [Growing a Low Carbon, Resource Efficient Economy with a Sustainable Supply of Raw Materials;](#)
- [Waste: A Resource to Recycle, Reuse and Recover Raw Materials;](#)
- [Water Innovation: Boosting its value for Europe.](#)

Maybe your next project will tackle the threats linked to climate change? Find more information on Horizon 2020 [here](#).

Work Programme 2014-2015

The [2014-2015 Work Programme](#) for the Climate action, environment, resource efficiency and raw materials challenge focuses mainly on water and waste. Three types of calls are foreseen:

- **Waste – A Resource to Recycle, Reuse and Recover Raw Materials:** this call addresses the whole production and consumption cycle, from waste prevention and the design of processes and products for recyclability, to reuse and waste management.
- **Water Innovation – Boosting its value for Europe:** activities address integrated approaches to water and climate change adaptation and mitigation; bringing innovative water solutions to the market; and harnessing water research and innovation results for the benefit of industry, policy makers and citizens in Europe and globally.
- **Growing a Low Carbon, Resource Efficient Economy with a Sustainable Supply of Raw**

Events

Progress at Lima United Nations Climate Conference, Next Stop Paris

When the history of climate change negotiations is written, the recent United Nations conference in Lima will not be the headline. While the big decisions are due to be made in Paris at the end of the year, Lima was considered a key step on the road to a globally binding treaty on reducing greenhouse gas emissions. The treaty would aim to limit the global temperature increase to 2°C above pre-industrial levels. [Calum MacKichan](#) explains what was at stake in Lima, and how the results set the scene for Paris.

The failure of the last major attempt to produce a global agreement – in Copenhagen in 2009 – was partially blamed on inadequate preparation before the conference. Lima was therefore a chance to ensure the background work was on course before the circus descends on the French capital in December 2015.

The need for an agreement has been put into stark focus by the publication of the United Nations Intergovernmental Panel on Climate Change (IPCC) 5th Assessment Report, which gave the clearest conclusion yet that climate change is unequivocal, man-made, and presents a high risk of irreversible global impact.

This broad scientific consensus is not shared at the political level; fraught talks overran by two days in Lima before an agreement was finally reached.

The biggest debate focused on a distinction made between developed and developing nations in the UN convention on climate change in 1992. The convention committed rich countries to carbon-cutting measures while poorer countries have no such obligations.

The Lima text makes no mention of this divide, but developing countries fought to make sure they are not bound by the same commitments as developed ones. They feel that industrialised countries have a greater historical responsibility for carbon emissions while poorer countries have less capacity to reduce and mitigate emissions.

The new deal takes into account the changing development status of nations, and attributes differing degrees of commitment accordingly. Analysts see this new classification as crucial to a deal that major players such as the US and China, who were on opposing sides of this issue, will be willing to sign in Paris.

A draft text of the Paris treaty was also achieved in Lima, however it leaves almost every negotiating option on the table. For example, one section ranges from cutting greenhouse gas emissions to next zero by 2050, to the much more vague option of “low-emission development strategies”.

There are many points to argue over and some analysts feel that too much has been left undecided and delayed. So, while the deal in Lima represents progress, it also emphasises how difficult negotiations in Paris will be if a global treaty is to be signed before the end of the year.

The EU has consistently been a leader in advancing climate change policy and this message remains strong in the mandate of the incoming European Commission. Last October’s announcement of an agreement to cut carbon dioxide emissions by 40% below 1990 levels by 2030 also reinforced the EU’s commitment. EU leaders hoped this commitment would catalyse progress towards a global treaty. A joint China-US agreement announcing unilateral measures to reduce their emissions by 2030 further raised optimism before Lima; however, the differences between developed and developing nations remained keenly contested.

Events

Progress at Lima United Nations Climate Conference, Next Stop Paris

In the years since Copenhagen, the so-called BASIC countries – Brazil, South Africa, India and China – have cooperated to form a common position further backed by the wider G77 group of 131 developing countries. They have aimed to protect the 1992 agreement in which emission reduction is the responsibility of only developed nations. The last two days of Lima were decisive as this chasm between the developed and developing world is now less clear, making a globally binding treaty more possible. This is likely to be the lasting achievement of the Lima deal.

Five sessions of talks are now planned, starting in February, before the conclusion in December.

The biggest challenge will be to agree upon a transparent method to measure emissions in order to globally monitor targets, a goal that remains very far in the distance.

For climate researchers, policy makers and environmentalists, 2015 will be a landmark year marked by either a historic deal or a catastrophic failure.

Alumni

“Two voices”

Gender issues in research



Giovanna Avellis

Giovanna Avellis is a senior researcher in e-learning and mobile learning at InnovaPuglia, TECNOPOLIS, Valenzano, Bari, Italy.



Antonia Hadjimichael

Antonia Hadjimichael is currently an Early Stage Researcher at the University of Girona, Spain. She is a Marie Curie Fellow within the training network SANITAS ITN.

The nature.com website published “**Women in Science**” in March 2013, leading with the statement: *“Science remains institutionally sexist. Despite some progress, women scientists are still paid less, promoted less frequently, win fewer grants and are more likely to leave research than similarly qualified men.”* Is it a statement that you share?

Antonia Hadjimichael: I share this sentiment and I have the feeling that there is a general consensus on the fact that science remains sexist. There could be some disagreements regarding the origins and the causes, and of course on how it could be tackled. But we have also to keep in mind that differences can be witnessed according to the location of women scientists, for example.

Giovanna Avellis: I also share this statement, Antonia. Last year the European Commission stated that 40% of women benefited from Marie Curie grants. This means that something is changing. Nevertheless, women are still paid less, promoted less frequently and can’t access high level positions in industry and in academia. What’s more, they are more likely to leave research than similarly qualified men because of family issues, especially after having obtained their degree.

AH: But there are some efforts in Europe to address this issue, and as you mentioned, the number of women benefitting from Marie Curie grants is evolving.

GA: We can also point out the United States and Canada, where the situation for women in science is even better compared to Europe.

Margaret Rossiter, an American historian of science, offered **two explanations** for the statistics, and explained how women in science are disadvantaged:

- **Hierarchical segregation: the higher the level, rank of power and prestige, the smaller the population of women participating**
- **Territorial segregation: female employment is often clustered around specific industries or industry categories**

At this early stage of your career, have you already witnessed “hierarchical segregation”?

GA: I agree that the concept of hierarchical segregation exists. My personal experience of industry is that women are not easily promoted to positions of high responsibility.

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Gender issues in research

It is commonly known that female managers are less numerous than male managers. In academia, the situation is the same. In the [“She figures 2012”](#) report, it stated that 15.5% of institutions in Higher Education Sector were headed by women, and just 10% of universities had a female rector whereas the percentage of women who graduate is higher.

There is a clear imbalance between women and men in decision making processes. On average in the EU-27, 36% of members of scientific and management boards are women in 2010 – a share that is likely overestimated (notably by methodological changes in the calculation of the EU-27 aggregate), as in 2007, women represented just 22% of board members.

Women are still underrepresented in private and public sectors. Consequently, with this underrepresentation, an incredible potential remains untapped.

I have felt this hierarchical segregation as I have been surrounded by men most of time.

AH: I am currently at the beginning of my PhD. At my level, I can see that there is a balance between the number of men and women at work. But this balance is lower when I look higher in the hierarchy.

But I would like to point out that if we look at how society looked 30 or 40 years ago, the roles and occupations of men and women were totally different, which could explain why some imbalances remain. I am optimistic to the extent that things are steadily changing.

GA: Yes, the situation is changing at academic level.

AH: For the moment, academia offers a more egalitarian environment compared to industry.

Your scientific fields are environmental sciences and engineering. Is there a “territorial segregation” between specific research areas?

AH: Territorial segregation is more obvious in other professions than in research. Even if the number of women researchers is lower than that of men, I don't see territorial segregation between the different scientific fields, except

in social sciences, psychology or education for example, where the number of women is much higher. Maybe territorial segregation could be due to different skills among men and women? In my opinion, territorial segregation is not as negative as hierarchical segregation.

GA: Again, according to the [“She figures 2012”](#) report, 46% of all PhD graduates were women in 2010 in the EU-27. The same year, female PhD graduates equalled or outnumbered men in all broad fields of study, except for science, mathematics and computing (40%), as well as engineering, manufacturing and construction (26%). Although the glass ceiling problem remains, I agree with you, Antonia, when you say that the proportion of female researchers is growing faster. And this should better hopefully with the [EU-rope 2020 objectives](#).

A lot of campaigns (some successful, some not) have sought to improve the participation of women in science. How would your ideal campaign look?

GA: My ideal campaign would be based on role models to disseminate stories and to give young female researchers information about career opportunities. This would foster a positive attitude towards scientific careers.

These role models should also promote career mobility, and talk about the issues facing women researcher with a partner. It is not always straightforward for the partner to follow the wife's career's path and to find work. When I was awarded my Marie Curie Fellowship and had to move to Imperial College in London, my husband followed me. He took a sabbatical from his university and integrated into the London environment. He started writing books and completely changed his field of study. We therefore both benefited from this mobility opportunity.

AH: My ideal campaign would be bottom-up and focused on young people and children. It is important to emphasise successful role models, as you, Gianna, mentioned.

The gender issue is rooted deeply in our society and we need to address it from the foundations, by focusing on children and giving them examples of success

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ful men and women in research. Targeting children and the younger generation is relevant for any kind of issue!

In the “[Women in Science](#)” article, the author argues in favour of quotas to ensure a set number of women in a company or in a project, for example. But quotas might not represent a solution if we don't have a large selection pool from the beginning. The fewer women there are interested in science, the harder it will be for them to access higher positions.

Was science promoted in your respective schools?

AH: I grew up in Cyprus. Sadly, I don't really remember being encouraged to become interested into science. But there was no encouragement for boys either!

GA: In Italy, there have been campaigns to promote science at school. For example the [eSkills campaign](#) and “[Girls in ICT](#)”.

Are prizes, medals and awards for women in science useful for women researchers? Do they help make a difference?

GA: From my point of view, medals and awards are very useful. They bring visibility to women scientists. I want to mention two associations [ITWIIN](#) and [EUWIIN](#) where I am a member. They award a prize “Best woman innovator and best woman inventor in Italy and in Europe”. At the EU level, I am also a member of the jury that elects the best innovators and best women inventors within EUWIIN. Besides visibility, the winners of such prizes increase their chances of being contacted about job opportunities. I am strongly in favour of medals, prizes and awards for women, and these should be promoted.

AH: I disagree with you, Gianna. I have some reservations about prizes and medals awarded specifically to female researchers. On the one hand, I don't like the focus on researchers because they are women, but on the other hand I like the idea on putting the work of a woman in the spotlight. I think nevertheless that this should be done on equal ground.

If we encourage girls to participate in science and research from the beginning of their studies/careers, I think that more and more women will work in this field and the representation of women will grow.

However, I agree on the fact that these awards encourage women. Gianna, you have more experience than me, and I still don't realise how important these awards for women are. I have been lucky to evolve in a very egalitarian environment so far. That could explain my optimistic point of view!

GA: I am not pessimistic! The actions led by ITWIIN and EUWIIN, promoting awards for women at Italian and European levels, are very important. Usually, the winners are contacted for interesting job opportunities in other companies. These awards are crucial for women.

AH: It is true that equality will not come by pointing out the differences, and this applies not only to men and women, but also in any field where there is discrimination. But maybe my position is too idealistic!

GA: These medals and awards don't help reinforce the differences between men and women. So far, most Nobel prize winners have been men, even if women have been awarded, like Marie Curie for example.

A working group “[Gender Equality for Mobile Researchers in Science](#)” has been created within the MCAA. Could you tell us more about the objectives and activities foreseen?

GA: The GEMS Working Group was created in September 2014. It aims to promote and to encourage mobility amongst women scientists and to foster gender equality in science.

Activities are foreseen:

- to empower women scientists in Europe;
- to fight discrimination and marginalisation;
- to promote mobility among women scientists in Europe and outside;

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- to promote gender equality and excellence in science;
- to support the representation of women in leadership and decision-making positions;
- to publish articles and to sustain the development of policies promoting gender equality and empowerment in science;
- to disseminate role models.

Networking is very much encouraged, and it would be great to have forums so that women from the association could network and discuss common issues of interest. What's more, one of the main activities is to create an e-book presenting Role Models for Women Scientists in the MCAA.

GEMS also plans to attend conferences at European and global level (like ESOF 2016, Marie Curie conferences, gender summits, etc.) to encourage networking.

We also hope to be able apply for funding under Horizon 2020, especially in the sector of mobility.

AH: I follow the activities of the group on the MCAA [webpage](#). It could be interesting to implement synergies between the networking working group and GEMS.

Giovanna Avellis, you recently posted a [call for contributions for the e-book](#) on Role Models of Woman Scientists of MCAA. How relevant are role models in your respective careers? Who is your role model?

AH: I couldn't mention one model. But I believe that having successful women as models is essential. I always had an interest in science and it has always been a pleasure, when attending conferences and events, to meet successful women. In my opinion, these models are important to showcase, even if I personally never had a model to develop my interest in science.

GA: To me, role models have always been important in my career and in mobility. Women often need to overcome a lot of challenges especially when mobility is at stake. It will take time to reach gender equality in sci-

ence. These models have been a way to improve my scientific profile and to disseminate projects results. I had to cope with a new environment when I moved from academia to industry and had to fight against the brain-drain of researchers from Italy. My role model has always been Marie Skłodowska-Curie.

Have you heard of the [Finkbeiner test](#)? It is a checklist proposed by Christie Aschwanden to help journalists avoid gender bias in articles about women in science. Articles about women scientists should not mention:

- the fact she's a woman;
- her husband's job;
- her childcare arrangements;
- how she nurtures her underlings;
- how she was taken aback by the competitiveness in her field;
- how she's such a role model for other women;
- how she's the “first woman to...”.

Are you in favour of such a list? If yes, is there something that you would add to the list?

AH: This list reminds me the [Bechdel test](#). It asks if a work of fiction features at least two women who talk to each other about something other than a man. It also reminds me of an [interview](#) with Yelena Serova, a Russian cosmonaut, which was published in September. She was indeed asked how she would take care of her hair on board the International Space Station! In response, she asked the journalist why the question wasn't addressed to her male colleagues as well. It is true that sometimes an article aims to showcase the success of a woman in science and “falls into the trap” by mentioning childcare arrangements or their appearance for example. So yes I think that it is important to keep this list in mind before drafting an article about women in science, I would be in favour of such a list.

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GA: I am not in favour of such a list. “How she’s such a role for other women” and “How she’s the first woman to” shouldn’t be on this list, as these elements are still important.

AH: Maybe the list should be adapted according to the context. It is true that some of these issues, for example “being a role model for other women”, are not so discriminating. In the case of Yelena Serova, for example, it was important to mention that she was the first woman female cosmonaut in 17 years.

GA: I would definitely shorten the list to the first five elements.

How do you see the future for women in research?

AH: I am very optimistic about the future for women in research. I am convinced the situation will improve. Society is changing and mentalities are evolving, so is science.

GA: I agree with you, Antonia. The future for women in research seems brighter than it was in the past. But we are still far from reaching gender equality. Nevertheless, young women are more aware of the difficulties that they face and some gaps are reducing slowly. Again, according to “[She figures 2012](#)”, on average in the EU-27, women represent 40% of all researchers in higher education, 40% in the government sector, but merely 19% in the business sector. And the number of women researchers is growing. Gender equality is a concept in implementation, but it is not completely followed and it is our duty to monitor the implementation of gender equality plans. This is part of the Europe 2020 strategy.

I would also like to point out the concept of [responsible research and innovation](#) (RRI), currently being promoted and implemented. An RRI conference took place in Rome from 19 to 21 November 2014 and a call for action was published in the [final declaration](#). Under Horizon 2020, one of the aims of the European Commission is also to strengthen the gender dimension.

There is also a question that I would like to ask: “Is there a gender dimension in EU research?”. Some opinion polls suggested that “Women are less interested in innovation than men” and I find it difficult to accept this statement. The reality is that women are not taken into account in analysis, as most of time, they are based on male standards. In reaction to this situation, the Expert Group “Innovation through Gender” has published the “[Gendered Innovation report – How gender analysis contributes to research](#)” to help develop the gender dimension in EU research. To me, the future for female researchers should take into account gendered innovation.

Conclusion

GA: We need more women in science. Awareness must be raised at school then continued throughout the career of women scientists through the promotion of role models. The gender dimension and gendered innovation are crucial.

AH: I am very optimistic about the future of women in science. We will work on this.

Alumni

Opportunities after a Marie Curie Fellowship and the coordination of a Marie Curie project Why not a Nobel Prize?

You probably already know, but last December, a former Marie Curie Fellow and a Marie Curie project coordinator were awarded Nobel Prizes. [Stefan W. Hell](#) (Germany) received the Nobel Prize for Chemistry, whereas [Edvard I. Moser](#) (Norway) was given the Nobel Prize for Medicine. Let's take a look at their career paths to see whether there is a clear recipe for success!

Stefan W. Hell "For the development of super-resolved fluorescence microscopy"

Professor and one a director of the [Max Planck Institute for Biophysical Chemistry](#), Hell shares the Nobel Prize in Chemistry with Eric Betzig and William E. Moerner. The three winners are pioneering researchers in the field of ultra high resolution fluorescence microscopy. According to the [Max Planck Institute's press release](#), "Stefan Hell succeeded in radically overcoming the resolution limit of conventional optical microscopes – a breakthrough that has enabled new ground-breaking discoveries in biological and medical research."

Hell received his diploma in physics 1987, followed by a doctorate in 1990, from the [University of Heidelberg](#), Germany. He then worked at the European Molecular Biology Laboratory; as a senior researcher at the University of Turku, Finland; and as a visiting scientist at the University of Oxford, UK. In 1997 he was appointed to the Max Planck Institute for Biophysical Chemistry in Göttingen, where he built up his current research group dedicated to sub-diffraction-resolution microscopy. He established the department of Nanobiophotonics in 2002.

Hell has received support throughout his career from the Marie Curie Actions. He was an MSCA Fellow at the University of Turku from 1996 to 1997, and then scientific coordinator for three MCA individual Fellowships. His most recent Marie Curie project ended in May 2014 and was managed by the [Research Executive Agency](#) (REA).

In an [interview](#) with *Sveriges Radio* (a Swedish station), Hell emphasises the role that the Marie Curie Actions played in his success, saying "If I hadn't gotten that I

would probably have dropped out". He also stresses the role that education played in his life. Originally from Romania, he was allowed to leave the country with his parents, but having to leave behind him his house and previous life "Only education matters because this is what you bring with you." The first key to the doors of success?

Edvard I. Moser "For the discoveries of cells that constitute a positioning system in the brain"

The 2014 Nobel Prize for Physiology or Medicine was awarded to May-Britt Moser and Edvard I. Moser, and to John O'Keefe, for their discoveries of cells that constitute a positioning system in the brain. Grid cells are neurons that act like a GPS in the brain, and are found deep inside it. According to the [Guardian](#) "All three scientists awarded the prize have dramatically changed how we understand the brain's navigation and memory systems. [...] O'Keefe speculated that place cells would need information akin to latitude and longitude in order to map space. Where this signal was located remained mysterious until 2005 when May-Britt and Edvard Moser discovered 'grid cells' in a brain region known as the medial entorhinal cortex." Moser said he and May-Britt (his wife) were inspired by O'Keefe's discovery of place cells.

Moser is the director of the [Kavli Institute for Systems Neuroscience and Centre for Neural Computation](#) at the [Norwegian University of Science and Technology](#) (NTNU) in Trondheim. He has coordinated two Marie Curie projects "Elucidating the role of the entorhinal cortex through precise optogenetic and pharmacogenetic manipulations" (2012-2014) and "Spatial representation in the entorhinal neural circuit" (2009-2011).

Moser says that the key to success is not elite schools, but fostering teachers who can recognise and encourage students with exceptional talents. He adds in the [Gemini article](#) "I believe that if we want to cultivate academic talents, we need to allow teachers to differentiate between students."

Having taken this advice into consideration, we wish the Marie Curie Alumni equal success in their research!

Funding

The benefits of Co-funding Beatriu de Pinós Programme

When scientists and researchers diversify their sources of funding, they preserve their independence. Here is the story of Ferran Macia, who combined support from the EU's COFUND and the [Beatriu de Pinós Programme](#) for a research project in Barcelva.

I wanted to go to Barcelona for three reasons that were equally compelling: to work with Prof. Tejada and his group, to come back to Europe to develop my research, and to join my wife in her new position.

First I contacted the group I wished to work with at the University of Barcelona. The leader was an experienced scientist with an outstanding career. He was not the ambitious leader seeking fast publications with high impact factor, he resembled instead a recently graduated student with plenty of energy for new projects. He told me he had some funding to hire me but insisted that I should apply for my own project and get my own funding — you have to preserve your independence and grow as a scientist, he said. I confess that his words delighted me; but mainly with respect to getting hired immediately rather than preserving my independence as a scientist.

Oriol introduced me to the COFUND program. A young scientist I had met in New York, he had received funding to conduct his research at the University of Barcelona under the [Beatriu de Pinós Programme](#) (from Autonomous Government of Catalonia). The COFUND action supports existing or new regional, national, and international fellowship programmes and aims at supporting the career development of promising, experienced researchers by letting them choose a research topic and an appropriate host organisation — exactly what Prof. Tejada had encouraged me to do.

I immediately gathered information about how to apply, which topics could be funded, and what the funding covered. Both the university and the funding agency (from Autonomous Government of Catalonia) were responsive and helpful in pointing me towards the appropriate call — I believe that the regional nature of the programme was the reason everyone at the university knew about it.

I spent about a month shaping the project I wanted to present. I spent time and resources (coffee, muffins, and beers) so that I could put forward my ideas to as many colleagues as possible. I received comments from people who — maybe without noticing — polished some project activities or sharpened some impact points. Applying for a fellowship is always challenging but there is always something that works: I asked Oriol for advice — and for a copy of his proposal. The [Beatriu de Pinós Programme](#) programme has a similar application structure to that of the individual Marie Curie fellowships: thanks to this I came across countless tips and tricks in online forums, especially regarding how to structure each application section and stress the key points. My proposal was awarded funding and I began my project and dream in Barcelona.

Working independently within a scientific group means you can choose what directions to follow or what people you collaborate with. I soon realised that this was not indeed a choice but a responsibility. I had an excellent relationship with members of the group and I tried to involve them all, as many as possible, in my project: experiments, simulations and theory. It was too ambitious. Once we started to get results I ran into trouble with crediting people for what they had — or had not — done.



Ferran Macia

Funding

The benefits of Co-funding

Beatriu de Pinós Programme

Although the funding did not cover lab or office supplies, the university and the group I joined helped both me and visiting collaborators from other universities settle in. I missed however guidance on establishing new collaborations and applying for grants, as well as having my own research budget.

I'm still developing my work at the University of Barcelona, but it is now time to find projects that allow me to think more than two years ahead. COFUND has raised my awareness of belonging to a large community of young researchers that has expertise, a network, and plenty of ideas.

If I had to say something to an undecided COFUND applicant, I would say that if you want to preserve your independence, as Prof. Tejada told me a few years ago, and develop collaborative projects, you should go for it: talk to the group you wish to work with and discuss your project and ideas with people — even if they work in a different field.

Projects

Discover a Marie Curie project FlowAirS

The Silent Air Flows in transport, buildings and power generation (FlowAirS) project is an Initial Training Network (ITN) in the field of duct acoustics aiming to reduce noise pollution. Francesco Sanna (from Italy), an ordinary Board Member of the MCAA, is one of the Fellows working on this project in Delft, the Netherlands.

Stakeholders

FlowAirS gathers 11 partner institutions from both academia and industry.

Project overview

Methodology

Research activities are organised around three themes: noise production mechanisms and noise propagation; the development of innovative noise reduction techniques; and the improvement of prediction methodologies.

These activities are divided into work packages (WP):

- WP1: air-moving devices (e.g., fans, compressors, turbo-chargers and gas-turbines);
- WP2: methods and models developed to predict the occurrence and amplitude of flow-induced pulsations;
- WP3: the use of metamaterials in silencers;
- WP4: the simulations performed for academic and industrial use;
- WP5: the latest technologies in noise radiation and propagation;
- WP6: methods of system identification;
- WP7: dissemination of activities;
- WP8: management and training activities.

The FlowAirS project started in December 2011 and will last four years.

Projects

An interview with Francesco Sanna Marie Curie Fellow working on the FlowAirS project

1. Could you describe your project?

The project I work for is based at the department of Heat Transfer and Fluid Dynamics of [TNO](#), the Dutch research centre, in Delft. Its main goal is understanding and evaluating the effects of multiphase flows on acoustics in different configurations of pipes.

Acoustic resonances in ducts with closed side branches can result in an excitation of strong pulsations, so-called Flow Induced Pulsations (FIPs). This is relevant especially for engineering applications – the resonances are often encountered in transport systems, compressor installations, electric power stations and chemical plants. In gas transport systems, for instance, they can impact operations significantly, especially the production and transport of gas, as well as safety.

Acoustic resonances must therefore be considered during the design of piping layouts. Intense noise with discrete frequencies, alteration of relief valves, mechanical stresses (severe structural vibrations), and possible fatigue failure are some of the consequences of the resonances.

Over the last 70 years, this phenomenon and its drastic effects have been experienced in several fields. But in investigating this phenomenon, only studies involving dry gas have been conducted.

The aim of this PhD is to increase understanding of how the simultaneous presence of two phases (water and air in my case) affects acoustics in pipes. It therefore brings together the two branches of fluid dynamics: acoustics and multiphase flow.

2. How did you choose your project?

TNO proposed the topic and the final goal of the project. Being interested in what TNO does, I accepted.

3. How are you organising your work?

My work is mainly experimental and is in line with Dutch culture. It is based around regular meetings to update the collaborators, to propose solutions to

problems encountered and new ideas for the evolution of the work. There is also feedback aimed at evaluating the quality of each project milestone, helping us to execute tasks more effectively and ensuring transparency.

4. What stands out about an application for an ITN? Could you tell us about the application process?

In my case, I applied for the position because I was interested in it. I contacted my supervisor, Dr Golliard, and had a first interview with him and with the Human Resources department. After a few days, I was asked to go to Amsterdam and sit an exam involving mathematical, physical, psychological tests. I then had a final meeting in Delft where we talked about the work and I had a tour of the labs. Then I was hired! TNO was also efficient in that sense: in 10 days I finished all the process and on 2 October 2012 I received the news that I would start my activities from 15 October 2012.

5. How did you choose your partners?

I contacted one of the partners to ask them to join the project.



Francesco Sanna

Projects

An interview with Dr. Joachim Golliard Francesco Sanna's supervisor

1. Mr Golliard, could you tell us about your role within the FlowAirS project?

I am the scientist in charge at TNO, supervisor of Francesco and I support him in performing his research at TNO

2. You represent the Netherlands Organisation for Applied Scientific Research TNO. What is the role of this organisation within the FlowAirS project?

TNO is the Dutch research centre and it is involved in the Work Package on Flow-Induced Pulsations. Flow-Induced Pulsations are one area of expertise of the department of 'Fluid Dynamics', recently renamed 'Fluid Dynamics and Heat Transfer'. At the same time, part of the group has expertise in multi-phase flows. The idea behind Francesco's research is to investigate at the interface of these fields of research: How do droplets of liquid influence acoustic propagation and flow-induced pulsations in gas flows. There are very few studies which combine these two disciplines.

3. As Francesco Sanna's supervisor, how is your collaboration organised?

Although Francesco is always free to knock on the door and to come and ask any question, we also organise formal meetings with other colleagues to guide him and review his progress. It is important for the development of the project that everything is clear both to Francesco and to us. In addition, Francesco is also asked to present his work to the department from time to time.

4. You produced two papers in collaboration with Francesco Sanna. Do you plan to publish other papers? What would be the topic(s)?

Yes, of course. He is about to submit another paper for a conference in Boston.

5. What added value do you think the Marie Curie Actions add to the FlowAirS project?

The Marie Curie Actions have two main added values. First, creating a knowledge base common to all the Fellows allows them to conduct research on their own topic, and more importantly to communicate with one another about it, even if they have different fields of interests. Furthermore, by meeting regularly, with social activities "after the classes", the Fellows form a group. As I have seen in earlier projects, this group of Fellows becomes a professional network after the project

Projects

An interview with Dr Yves Aurégan Coordinator of the FlowAirS project

- 1. Mr Aurégan, you're the coordinator of the FlowAirS project. Could you tell us more about your role?**

My first role in the project was to prepare the proposal and to liaise with the European Commission during the negotiation phase. Now that the project has started, my role is to ensure that the project will be successful by making sure that the training of the Fellows is done correctly and that they can construct a network – both academic and industrial – in the field of acoustics.

- 2. How is the collaboration between academia and the private sector organised?**

The private sector plays two roles in the consortium. Some of the industrial partners are 'full partners', i.e. they participate directly in the training of Fellows by hosting them within their own research teams. Other industrial partners are 'associated partners', who advise on the applicability of the research conducted by the consortium and welcome the Fellows for short visits to industrial sites.

- 3. The research programme is organised around 8 work packages. Are you coordinating all of them? How?**

I am the leader of two work packages (WPs): one on training and management and one scientific WP. Other members of the consortium lead the other WPs.

- 4. You contributed to several FlowAirS papers. How is the publication process organised?**

The work of each Fellow is showcased through publications, mainly in scientific journals but also in conference papers. We also try to develop collaborative research between the partners of the consortium by seconding Fellows to different institutions. In this case, cross-publications are possible.



Dr Yves Aurégan

- 5. The outcomes of the FlowAirS project will help tackle noise pollution in the European Union. Do you think the project could bring added value on a global scale?**

I think that the scientific results of the project will increase knowledge within both academia and the private sector and this knowledge will be used to reduce noise pollution. But for me, the most important thing is that, in this project, we will train a new generation of young researchers in the range of multi-disciplinary skills required to tackle the novel technical challenges faced by industry.

Actions

Looking forward to being awarded a Marie Skłodowska-Curie Action

*We are currently in a transition period, during which some of the projects financed under the **Seventh Framework Programme** are still ongoing, whereas the first **Marie Skłodowska-Curie Actions** financed under Horizon 2020 will start very soon. We met **Christos Apostolakis** (from Greece) who hopes to receive funding for his project. Are you in the same situation?*

New funding opportunities

Apostolakis has been following the EU's research funding programmes since 2009. Since the new framework programme – **Horizon 2020** – was launched, he has been particularly interested in the new Marie Skłodowska-Curie Actions. He has been working on a project proposal, hoping to benefit in 2015.

Conception of the project

The proposal has been shaped according to:

- Apostolakis' research interests;
- entrepreneurship and innovation aspects;
- EU research guidelines.

A new project in economics

Apostolakis' field is economics. His project proposal, **"Strategic Entrepreneurship for Community Innovation and Wealth Creation – Lessons from a Brazilian Approach"**, would be based in Bournemouth, United Kingdom.

Through this project, he aims to develop a strategic framework and potential processes to encourage strategic entrepreneurship within the wine sector in Santa Catarina and Rio Grande Do Sul, Brazil. Some company case studies will be identified and compared with those of counterparts in the UK (and possibly the EU).

Strategic entrepreneurship is relatively new as a research area. According to Apostolakis, it has been widely accepted that implementing strategic entrepreneurship is rapidly becoming an organisational imperative for companies competing within the modern innovation-driven global economy. Collaboration can be a tool in achieving this imperative. Building on collaboration, learning and resource-based view collaboration can provide innovation for communities directly and indirectly linked to the sector.

Apostolakis has identified the following areas of strategic management as research priorities:

- collaboration and cooperation between varied participants;
- impact on local enterprises and their strategies;
- innovation and wealth and how to measure them, along with the Resource-Based View;
- strategic entrepreneurship;
- aspects of global strategy (based upon a comparison between Brazil and the EU).



Christos Apostolakis

Actions

Looking forward to being awarded a Marie Skłodowska-Curie Action

He would also like to focus on the following areas:

- positive contribution to success;
- provision of decent livelihoods;
- provision of ecosystem services and public goods;
- overcoming economic difficulties: new ideas, strategies and – potentially – governance structures for Brazil (and Europe);
- provision of knowledge and tools for effective decision making and public engagement of the communities involved;
- supporting innovative policies and societal changes (e.g. with regard to green economy).

Hopes for the future

In his Alumni data, Apostolakis recommends the following to researchers wishing to apply for funding under a Marie Skłodowska-Curie Action: *“resilience and persistence if you are a researcher and you feel it. In my case, success has not come yet, but it will.”* We wish him every success!