

COSIMENA Clusters of Scientific Innovation in the Middle East and North Africa**German Science Week 2020****Sunday, Sep 13th until Thursday, Sep 19th****Introduction**

“Continuing my academic carrier in Germany has undoubtedly helped me to achieve my academic and professional goals”. From the Faculty of Engineering in Mansoura University to the Technische Universität Berlin in Germany, Dr. Mo'men Elsoudani's story, DAAD alumni, represents an inspiring example of a growing experience at the academic, professional and personal level abroad.

As in Dr. Elsoudani's case, many Egyptian young scientists and researchers have benefited from the various set of DAAD's services to continue their academic and professional career in Germany. Manifestly, the DAAD regional office in Cairo has been a leading institution for the promotion of scientific exchange, guided by the motto “change for exchange”. Since 1925, DAAD has supported Egyptians in the pursuit of their academic and professional projects in Germany by providing scholarships for the best, structures for internationalisation and expertise for academic collaboration.

Within the scope of COSIMENA (Clusters of Scientific Innovation in the Middle East and North Africa), this year DAAD organized the first digital “German Science Week 2020” from September 13th until September 17th. Throughout this five-day conference, the DAAD and German Universities and Institutions offered information about academic career opportunities and the research landscape in Germany. The event also intended to intensify scientific collaboration and increase the visibility of networks between researchers and universities in Germany and countries of the Middle East and North Africa. “In times of distress the only way to come out is in global solidarity” Ms. Isabell Mering, director of the DAAD Cairo, stated in the opening remarks, highlighting the necessity to continue promoting global scientific exchange especially during the challenging context of the current global pandemic.

Throughout each session of the German Science Week, young Egyptian scientists could therefore receive detailed information about the German scientific landscape and the different opportunities available. In addition to informative sessions, the event included soft-skills modules, scientific talks, Alumni-reports and Q&A time which created a rich, a diversified and stimulating environment for exchange.

First day_ September 13th

On Sunday, September 13th, director of the DAAD regional office Cairo, Ms. Isabell Mering, opened the German Science Week 2020 with a presentation of the programme of the conference accompanied by a clarification of DAAD's mission and activities. Specifically, she highlighted DAAD's long-standing commitment to connect researchers from Germany and the MENA region for the benefits of science.

The day continued with a detailed presentation of the German research landscape by Ms. Ann-Kathrin Schwarz from the DAAD, an overview of the DAAD and its Funding Mechanisms (for PhD & Postdoc) by Mr. Mohamed Fathy from the DAAD, a soft-skills module on "How to contact a supervisor/Professor?" by Dr. Eng. Hassan Elmouelhi from TU-Berlin and a space for Q&A between the participants and speakers.

Ms. Ann-Kathrin Schwarz's presentation offered useful information about the German research landscape and the industries, institutions and universities for research there. She explained in detail each of the numerous opportunities of research in Germany in addition to the ones affiliated with universities. Namely, the so-called "Big-Four" -Fraunhofer, Max Planck Society, Leibniz Association, Helmholtz- which receive private and public funding, are particularly attractive thanks to their numerous institutes and research centers, a considerable budget and a high percentage of international staff.

Ms. Schwarz also listed a variety of funding institutions including research funding institutions –e.g. DAAD, DFG, Alexander von Humboldt-, research performing institutions –e.g. Fraunhofer, Max Planck Society, Leibniz Association, Helmholtz- and private/public foundations –e.g. VolkswagenStiftung, Fritz Thyssen Stiftung, Stifterverband. Moreover, the presentation mentioned additional non-university research opportunities such as in the case of Federal Research Institutions, departmental research –e.g. Robert Koch Institute-, "Länder" research institutions –e.g. Institute for Bee Research- and Academies of Sciences and Humanities. Additionally, it is possible to find as a participant in the German research landscape research infrastructures, which are publicly funded and have a basic research approach. Research infrastructures combine climate research infrastructures, platforms for social, cultural and humanities researchers, Life Science networks, research vessels and operate with structured decision-making processes for large-scale projects.

In addition to presenting the various opportunities and institutions for research, Ms. Ann-Kathrin dedicated time to explain the German research policy and its goals. Primarily, Germany is motivated to invest in research to provide funding for future-oriented issues, to cultivate a network involving all participants, to create an innovation-friendly research environment, to provide researchers with good working conditions and to promote internationality. Over the last years, Germany has developed a solid internationalisation strategy through various instruments such as funding bilateral research projects, transnational research projects, internationalisation of leading-edge clusters/networks, mobility and research marketing campaign like "Research in Germany". Finally, Ms. Schwarz referred to a list of useful websites for students to find the most suitable programme to continue their academic career in Germany. Among others, she mentioned PhD Germany (www.phdgermany.de), Research in Germany (www.researchingermany.org/jobs), EURAXESS (www.euraxess.de), Academics (www.academics.com).

This general overview of the German research landscape opened the way for more specific information in order to best organize the continuation of the academic career in Germany. To that purpose, the second intervention by Mr. Mohamed Fathy from the DAAD focused on funding opportunities at the DAAD. Before outlining the funding opportunities for PhD and post-doctoral students at the DAAD, Mr. Fathy clarified the difference between the individual PhD and the structured PhD. While the first type of PhD implies an individual research under the supervision of a German professor and without the obligation to attend additional courses, the second type requires the researcher to be committed to attend a structured programme composed of lectures and seminars and to conduct the research under the guidance of a supervisor or a supervising committee. Mr. Fathy

also presented the additional option in Germany to do a PhD project in cooperation with a company. Depending on the project, the duration and the type of funding available vary. In Germany, there are generally no tuition fees. However, it is necessary to be able to manage the living costs, which are estimated to be around 918 EU, through individual funding, support from either the supervisor or host institution, and a scholarship. In this context, Mr. Fathy presented some examples of funding options such as the DRL-DAAD research fellowships, international visiting researchers at Max Plank Institute, Research Grants for one year or short-term projects, bilateral exchange academics, the Fraunhofer Attract, the Georg Forster Research Fellowship for postdoctoral researchers, the Humboldt Research Fellowship for postdoctoral researchers, Postdoctoral Researchers International Mobility Experience (PRIME) and re-invitation programmes for former scholarship holders. Finally, Dr. Fathy complemented the numerous information provided in the presentation with additional sources available online to best plan the research project in Germany –e.g. the brochure “Funding your research in Germany” (www.research-in-germany.org/funding-programmes), and some websites (<http://www.funding-guide.de>, <http://www.gerit.org>, <http://www.higher-education-compass.de>, http://www.dfg.de/en/research_funding/excellence_strategy/index.html).

In addition to understand the available funding options, the other fundamental step that young scientists must take is to find a supervisor. For this reason, the DAAD organized a specific soft-skill module on “How to contact a supervisor/Professor?”. During this session, Dr. Eng. Hassan Elmouelhi from TU_Berlin highlighted the necessity to understand how to approach a Professor in order to find a suitable supervisor for the research. Before contacting any Professor, Dr. Elmouelhi advises young scientists to clarify some main elements of the research projects. Primarily, young scientists should first know their own field of research, then they should search and identify relevant faculties, institutes, doctoral programmes and they should further identify relevant research fields and potential supervisors. Afterwards, it is recommended to read scientific papers of potential supervisors, to tailor the applications and to finally prepare a motivation letter, a complete Curriculum Vitae and a short research proposal. Bearing in mind this preparatory process, students should then focus their attention on writing an attractive email to the potential supervisor. Referring to his own experience, Dr. Elmouelhi highlighted the importance of preparing clear, precise and concise research proposals without any mistake and a formal register of language. He also listed some common mistakes he has observed during his academic career which must be avoided. Particularly, students should refrain from contacting a professor who is not related to the topic, sending documents in Arabic, sending emails with language mistakes, addressing the professor with the first name and without title and asking personal questions like “How are you?”. On the contrary, an attractive email should be written in a correct and formal register of language and should include in attachment a shorter version of the project –preferably from one to three pages -and an optional longer version upon request- together with all the other necessary documents. In general, Dr. Elmouelhi encouraged students to follow these basic guidelines to get in contact with professors in order to attract their attention and set the basis for a fruitful research under their guidance. During an individual interview after his presentation, Dr. Elmouelhi further explained some elements that are fundamental to have a successful research experience in Germany. In his view, dedication and passion must be combined not only with some scientific skills but also with soft skills including communication and presentation skills. “Networking and building trust with new partners is also something that enhances and supports the academic career”, he concluded.

Second day_ September 14th

With a general overview of the German research landscape and the first necessary steps to find suitable research programmes in Germany, during the second day the participants were ready to delve into more specific sessions. As Ms. Mering explained in the opening remarks of the day, the second part of the conference was intended to go deeper into the content of the conference with presentations of two German universities and institutions in combination with a soft-skills module about critical thinking, a scientific talk about the topic of “Economy and Employment” and a testimonial from one of DAAD alumni.

The day therefore started with a comprehensive presentation of the Alexander von Humboldt Foundation by Professor Dr. Moemen Hanafy, Ambassador Researcher of the foundation who explained the objectives and values of the foundation as well as its programmes and application requirements. Since 1953, the Alexander von Humboldt Foundation connects academic excellence worldwide. Guided by this founding objective, the foundation manages different areas of work including the sponsorship of international academics as part of foreign cultural and educational policies, strengthening cutting-edge research through internationalisation and advancing development through academic cooperation. To that purpose, Dr. Hanafy clarified that the sole selection criteria is academic excellence, without quotas for countries and disciples the foundation provides sponsorship of people with the free choice of their academic host in Germany. He also briefly outlined the key sponsorship programmes divided between those for academics from abroad and those for academics from Germany. Most importantly, the foundation offers prestigious sponsorships and awards such as the Humboldt Research Award of the value of 60.000 EU. After announcing the numerous awards offered, Dr. Hanafy identified the benefits provided. They include a fellowship, a travel lump sum, language courses, benefits for families, allowance for research costs for the host institute as well as personal and individual mentoring in Germany and abroad by personal contacts at the foundation, study tours, network meetings, annual meetings, return fellowship for specific regions and alumni sponsorship. Dr. Hanafy continued his presentation by specifying the application procedure that can be done at any time of the year directly to the foundation. The application will then be assessed by independent expert reviewers and the final decision will be taken by independent selection committees within a timeframe of four and up to seven months. Among the various opportunities available, Dr. Hanafy highlighted the International Climate Protection fellowships and further Alumni sponsorship instruments to support alumni either in Germany or back in their home countries or through cooperative projects. Similarly, to the previous day, some information about how to look for a host in Germany and how to best connect with the supervisor and the German institution were offered.

The detailed explanation of the Alexander von Humboldt Foundation was followed by the presentation of the example of the Technische Universität Berlin (TU-Berlin) university by the Head of TU Berlin Liaison Office in Cairo, Ms. Ingy Nafie. She offered general information about TU, the largest university of technology in Germany, and the various opportunities for research there. As a center promoting intensive cooperation between science and industry, TU hosts more than 30.000 students and over 600 doctorates. Many programmes are in English, which results in an international environment and a diversified offer of programmes stretching from Humanities, Economic and

Management, to Engineering. Moreover, TU has a campus in El-Gouna with five master programmes available including Business Engineering Energy, IT for Energy, Energy Engineering, Water Engineering, Urban Development. TU Berlin also includes three clusters of excellence and numerous partnerships. After reviewing major steps to take for the application process and the identification of the supervisor, Ms. Nafie helped the participants to understand how to navigate the website and how to research the various opportunities online.

The conference then proceeded with a stimulating soft-skills module about “Critical Thinking” led by Mr. Mohamed Taha. In order to best prepare young scientists for their academic experience in Germany, Mr. Taha offered an overview of the role of critical thinking in developing a successful research project. He first outlined the necessary steps for an effective critical thinking process starting from identifying the problem, proving that the problem exists, searching for its causes to then analysing its future consequences and assessing whether the impact of that problem is crucial. He also offered insights on the types of support systems involving reasons, examples, expert opinion, and research results. In parallel, Mr. Taha identified major errors to be avoided such as falling into irrelevant reasons, circular reasoning, hasty generalizations, unidentified experts, inappropriate experts, unidentified research and outdated research. In an interview following his presentation, Mr. Taha further explained the requirement of critical thinking in the German research environment. In his view, Egyptian students going to Germany face two main challenges, one cultural and one pedagogical. “In Egypt and in the Middle East students are used to study by heart or rather copy-paste ideas. In Germany, there is a more individualistic and independent type of study which involves critical thinking”, he explained referring to the existing pedagogical challenges. He therefore invited Egyptians who desire to continue their academic carrier in Germany to constantly stimulate their critical thinking and apply it in their everyday life.

Furthermore, the conference included a detailed scientific talk on “Economy & Employment” by Prof. Axel Börsch-Supan, Chair of Economics of Aging from TU-München. During this presentation, Prof. Börsch-Supan provided a detailed analysis of the economic and employment consequences of the current global pandemic. He took the different contexts of Germany and Egypt under scrutiny and he compared the two situations. Mainly, the number of COVID-19 cases as well as the procedures applied to face the pandemic are different. Specifically, he highlighted the challenges for Egypt connected to a fragile healthcare system and the alarming economic situation further worsened by the global pandemic, as proven by the fall in GDP’s growth to 0.5 % in 2020. The tourism sector has also been deeply affected. Nonetheless, the economy continues running thanks to large public construction projects and a boom in the telecommunication sector. Germany has equally faced additional challenges because of the pandemic, namely the rise of corona-related insolvencies, the fall of the tourism sector and a higher unemployment. By referring to a graph, Prof. Börsch-Supan explained the negative consequences of shorter working hours and the distribution of the lost labour volume due to the short employment. Other possible consequences of the pandemic in Germany include the possibility of having no inflation, lower interest rates and asset price bubble. In Egypt, the main risk is related to the increase in external debts for which it will be difficult to find finance. To conclude, Prof. Börsch-Supan summarised the major challenges for Egypt and Germany after the pandemic. In his view, in the short-term Germany will be characterized by a short-term employment and Egypt will face an insolvency moratorium while continuing developing public projects. In the long-term, Germany will face a situation with very low interest rates and inflation, little evidence for asset bubble and the diminishment of disposable income due to debt repayment through taxes, while in Egypt the main challenge will involve the repayment of debt.

The day concluded with the inspiring testimony from one of DAAD alumni, Dr. Mo'men Elsoudani. He described his successful experience between Egypt and Germany and the different stages of his academic carrier. His story involves a path that started in the faculty of Engineering at Mansoura University and, through different stages, continued in Germany. In fact, his experience abroad first started with some international workshops for the master's degree in Algeria and Tunisia. After these experiences of exchange between people from different countries and from various educational systems, in 2010 Dr. Elsoudani participated into a study trip to Germany funded by the DAAD. He then took the decisive step to apply for the competitive German Egyptian Research Long-Term Scholarship (GERLS) in order to have a PhD fund program in Germany. In light of his experience at the TU-Berlin in the School of Planning Building Environment and Institute of Architecture, Dr. Elsoudani tried to explain why it is important to study abroad. According to him, it stimulates the development of new perspectives through the meeting with new teachers and students resulting in a rich exchange. Moreover, his programme abroad opened the path for numerous new opportunities such as workshops, conferences, multicultural networking, activities and trips, various master courses and awards. After finishing his PhD, the question whether to continue working in academia or in the professional field arose. Dr. Elsoudani finally decided to become an architect and has continued working on numerous projects until today, like the organization of the first architecture day in Egypt. During an interview following the conference, Dr. Elsoudani offered some advice for young scientists going for the first time to Germany. "You should be very open at many levels;" he stated, "be socially open, open-minded, see the many opportunities in front of you, attend workshops, go to events, learn the language". He also suggested travelling around Europe, visiting different cities, getting to know different cultures. He highlighted the importance of developing a routine and of organizing the time between working on the PhD and relaxing. "Doing sports, attending events and engaging into activities will be overall beneficial for the research as you will have further motivation in your work" he stated. Finally, he advised to identify your priorities and main targets while living in Germany and to organize the time accordingly. For example, if the main target is to finish the PhD on time, then it is necessary to set a precise working-schedule and to stay in constant contact with the supervisor. It is also advisable to make the most of the research time in Germany by further publishing papers in parallel with the PhD research.

Third day_ September 15th

The third day of the German Science Week offered further useful information on research opportunities in Germany as well as stimulating presentations on current topics. The session included the presentation of the German University TU-München, a scientific talk on "COVID-19 and the City: Experiences from Germany & Egypt", a soft-skills module on "Ethics in Science" and it concluded with another testimonial from one of DAAD alumni.

Ms.. Neele Meyer, from TUM ForTe – the Office for Research and Innovation, presented the Technische Universität München (TUM) and its various international programmes. As in the previous presentations of universities and institutions, Ms.. Meyer explained the different research tracks and the available programmes. She then delved into the specificities of the TUM doctoral model which implies an independent research as well as integration into the TM research environment and interdisciplinary networks. The university offers a variety of services including helping to identify suitable funding programmes, proposal feedbacks, events and workshops for postdoctoral students. She also clarified the application and funding options, such as applying for open positions on the

website, applying for your own funding and applying for TUM internal funding. Moreover, the TUM regularly organizes the TUM Research Opportunities Week, which represents a unique opportunity to get to know the research environment at TUM, to expand the international network and to exchange with professors of the field of interest. For the participants of the Research Opportunities Week, it is also available the TUM University Foundation Fellowship. In addition, TUM offers the EuroTechPostdoc2 Programme involving 70 fellowships for 2-year positions for postdocs at the EuroTech universities. Ms. Meyer equally invited the participants to consult the website and contact the university for further information and questions.

The day proceeded with a soft-skills module on a key topic for young scientists, "Ethics in Science". Dr. Tarek Tawfik explained the gravity of scientific misconduct and offered precious instructions on how to avoid falling into it. He started from defining the ethics of science as a code of honour to which the members of the scientific community are bound. In his view, the development of an ethical code of science has played a crucial role in giving scientists their respected and valued position in the community. For this reason, any scientific misconduct including infringement of property rights, plagiarism, publication and falsification of data must be punished. Among the most serious cases of scientific misconduct, he identified different types of plagiarism, from complete plagiarism, near-complete plagiarism, patchwork plagiarism to the less serious cases of unintentional plagiarism and self-plagiarism. Dr. Tawfik invited students to consult specific books and a website useful to understand how to avoid plagiarism (owl.english.purdue.edu). Other scientific misconduct behaviours include acts of sabotage against research projects, damaging or manipulating experiments, equipment, documents, hardware, software, maliciously displacing or removing books and data files, maliciously making books, data files and documents unusable and the removal of primary data. To further prove the necessity to stick to the ethical code of science during the academic career, Dr. Tawfik referred to examples of notable people who were revoked their academic and scientific title, had difficulty in finding a job and had to resign from their jobs as a result of scientific misconduct.

Later in the conference, Prof. Dr. Rudolf Schäfer from TU-Berlin and Dr. Eng. Hassan Elmouelhi from TU-Berlin Campus El-Gouna held an animated scientific talk on the topic of "COVID-19 and the City: Experiences from Germany & Egypt". Undoubtedly, the COVID-19 pandemic had a strong impact on the urban development in both countries in addition to deep economic and social consequences. For this reason, after a brief introduction of the context of the COVID-19 pandemic and its economic and social effects, this presentation focused on the new demands arising in the field of urban planning and development. Remarkably, a huge transformation of the houses and the public space is occurring as a consequence of the necessity to work from home and maintaining social distancing. The house is now the working place for many people, which leads to a reorganization of the internal space for both work and confinement. Additionally, people increasingly value open spaces in the cities such as parks, green areas, sidewalks and bicycle tracks. The problem of high population density and overcrowdings stands out today, especially in countries like Egypt. While Egypt has taken effective procedures to avoid gatherings and the spread of the virus by imposing a curfew, closing airports, cafés and restaurants, cancelling events, the social and economic consequences lead to long-lasting problems. For this reason, it is urgent for the academic community to develop new research and ideas to best face the current challenges deriving from the pandemic. Moreover, the presentation highlighted the primordial role of cooperation, both internal and international. Thanks to an effective collaboration between states and the different communities inside each country such as the civil society groups, NGOs, and the academic world, new and creative solutions can be found.

The day ended with an engaging testimonial from Ms. Marwa Schumann, a former DAAD scholarship holder. After obtaining her BA degree in Medicine at Alexandria University, Ms. Schumann obtained a DAAD scholarship and carried out a research project evaluation in “Integrated medicine curricula” at the University of Mannheim. In presenting her own experience, Ms. Schumann offered some advice to effectively apply for a scholarship. First, she recommends starting the application at least 6 months in advance. In her case, the most difficult step was to find a professor in Germany. Then, she researched about the medical sector in Germany and she finally worked on writing her scientific proposal. She explained that she encountered major challenges in contacting professors and universities, as she needed to send several emails without necessarily receiving an answer. In her case, she found it useful to directly contact by phone the people of interest as emails are always neglected. The next step involved preparing for the interview and then wait for the result of the application process. Ms. Schumann considers important to open a bank account in advance, to find a suitable apartment as soon as possible, to buy the tickets for public transportations in order to be settled to dedicate energy to the research project. While acknowledging the challenges related to studying in Germany at the scientific level as well as at the cultural and linguistic levels, Ms. Schumann highlighted the numerous benefits of such an experience. According to her, doing a research project in Germany represents a unique opportunity for growth as it pushes people to go out of their comfort zone. There are numerous positive experiences such as trips around Europe, scientific exchange, the approach to a new culture, the expansion of network of students and professors among others.

Fourth day_ September 16th

The German Science Week proceeded in the following day with a variety of interventions including the presentation of the German University of Marburg University, a scientific talk on “Water Resource Management”, a soft-skills module on Intercultural Training and another report from one of DAAD alumni.

The day therefore started with the presentation of the research opportunities at Philipps-Universität Marburg by Ms. Irene el Khorazaty from the Cairo Liaison Office. After providing a general overview of the university and its study programmes, which include 35 bachelor programmes and 64 master programmes, she highlighted the existence of a stimulating international environment as well as of numerous dedicated spaces for study and intellectual exchange. The University counts 11 Nobel Prize winners and continues standing as a place of excellence both at the national and international level. International cooperation with other universities around the world is also a defining characteristic of Marburg University, with more than 300 cooperation agreements with international universities in 24 countries. In addition to the faculties, the University of Marburg offers a variety of study programmes in academic centers such as in the field of Social Sciences, Natural Sciences and Medicine. Ms. el Khorazaty proceeded by presenting the individual post-doctoral, PhD and research projects at Marburg University. In order to conduct either individual or structured research at Marburg University, students must demonstrate to have excellent scientific records and must develop advanced research proposals. In addition, they must be ready to leave Egypt for three to five years in case of a PhD and a minimum of six months in case of a postdoctoral research. Notably, they must also be willing to adapt to another scientific and cultural environment in cooperation with a diverse team and the supervisor. She further provided some insights on how to write a good research proposal. In her opinion, a complete research proposal should clearly define

the subject, methods, work packages and timetable and should include a list of references for a total maximum length of ten pages. As in the cases of the aforementioned programmes at other universities, the main steps for starting a research project at Marburg University involve first finding the suitable professor for the field of study of interest, then handing in the required documents and finally waiting for acceptance and funding. With regards to the costs, Ms. el Khorazaty clarified that there are no tuition fees but it is necessary to pay 300 euros per semester, in addition to the visa fees and living costs which are relatively cheap. She concluded by providing a list of useful links to further understand the available opportunities online. Among others, she mentioned the Promotion of Junior Researchers by the (DFG), the European Researcher's Mobility Portal, GERIT German Research Institutions and DAAD Egypt.

The scientific talk of the day touched the subject of "Water Resource Management". Dr. Maria Vracholi from TU-München University offered an overview of the problem of water scarcity both in the world in general and in the specific case of Egypt. As the water is manifestly a mobile element, whose property rights are difficult and expensive to establish and enforce, water supply is unavoidably variable and erratic. She highlighted how the water scarcity problem is increasing as in many parts of the world there is an excess in demand for water, which causes great distress. Specifically, groundwater levels have been declining in many areas due to intensive pumping and there has been an increasing competing use of water among the agricultural, industrial, energy, municipal and recreational fields. The decreasing quality of water represents also a major problem especially in countries like Egypt, where the contamination of water is worryingly affecting the agricultural, industrial and recreational sectors. Considering the current situation related to water distress and scarcity, it is estimated that a further increase in population will bring the water distress problem to an extreme by 2040 especially in the MENA region and South-East Asia. Dr. Vracholi therefore explained the necessity to organize an efficient allocation of scarce water. In the specific case of Egypt, 55% of the water resources come from the Nile and the country must face many challenges especially due to the limited rainfalls, population explosion, inefficient irrigation and pollution. Dr. Vracholi therefore presented one among the existing initiatives to address the water scarcity problem in Egypt. The SIGMA Nexus project, Sustainable Innovation and Governance in the Mediterranean Area for the WEF Nexus, which targets two case studies from Egypt and one from Greece, aims to develop climate resilience in the Mediterranean region by proposing sustainability pathways within the WEF Nexus framework. This ambitious initiative has set three main objectives including identifying the key technical, economic and ecological features that promote resilient and productive agro-ecosystems, implementing training programmes that facilitate knowledge-transfer and support decision-making, cross-sectoral governance, scalability and stakeholder participation and developing a WEcoF digital innovation portal that promotes the co-design of Nexus-initiatives and acts as a capacity-building tool. During a successive interview, Dr. Vracholi put the accent on the effect of the construction of the Grand Ethiopian Renaissance Dam (GERD) for the water resource management in Egypt. In this context, she explained the need to not only take the quantity of water under consideration but also its quality in order to develop a comprehensive and accurate study of water resource management. She finally highlighted the diversified opportunities in Germany for people interested in this field. Firstly, she clarified that Germany does not face the issue of water scarcity but rather of water quality. Nonetheless, in Germany many students focus their research on other countries, such as Egypt, India, Nepal, Australia, South America etc. As research about water resource management is connected to numerous other fields, scholars and professionals in related areas of studies can offer precious

contributions. “We need economists, engineers, hydrologists, ecologists, geologists and social scientists to comprehensively carry out research on the water resource management field” she concluded.

After acquiring precious information about the urgent issue of water scarcity of our time, the participants were offered another stimulating session on the subject of intercultural competence. During this soft-skills module on “Intercultural training”, Ms. Sonja Drewes, a freelance business cultural trainer and self-development coach, explained the meaning of intercultural competence and its importance. Drawing from the example of a case of discriminatory behaviour in Germany, where a person from Morocco forgot to put the mask in the restaurant and was scolded out loud with a particularly aggressive tone, Ms. Drewes highlighted the role of everyday life experiences in developing intercultural competence. Particularly in the current globalized context, we all live in an intercultural world and intercultural competence is increasingly required both in the personal and professional life. In her words, intercultural competence implies being very knowledgeable of other countries, cultures, customs, traditions and languages. Nonetheless, she mentioned the difficulty in precisely defining the term “culture” which is composed of many aspects, some clearly observable and some more hidden as the iceberg model illustrates. Similar to the case of culture, intercultural competence is an articulated concept composed of different elements involving knowledge, skills and attitudes. Ms. Drewes then offered some guidelines to develop intercultural competence and she shared a document with a questionnaire where people can test their level of intercultural competence. She revealed that knowledge, skills and attitudes lead to internal outcomes such as developing flexibility, adaptability, empathy, open-mindedness and self-monitoring. Then, these internal outcomes lead to external outcomes like possessing an observable behaviour. Therefore, she highlighted the necessity to go through a process involving the person, the social environment, intercultural confrontation, intercultural experience, intercultural learning, intercultural understanding and intercultural competence.

Undoubtedly, the development of intercultural competence is a life-long process with many obstacles and challenges. It therefore requires commitment, openness and curiosity. In an additional interview, Ms. Drewes shared her ideas about the specific challenges that Egyptians might encounter when living in Germany. In particular, she explained that the German culture implies starting to be self-responsible in many ways. People in Egypt tend to be told what to do and how to do things and do not act independently because of the great power distance between people and their boss. Moreover, there is a tendency to try to find someone to blame while not assuming responsibility. ” This is not the case in Germany, where people have to act responsibly and independently” Ms. Drewes stated. Nonetheless, Ms. Drewes knows many successful stories of adaptation from Egyptians studying in Germany, especially those involved in the programme with a scholarship from the DAAD. Learning the language of the target country is a primordial step to take in order to adapt to the new culture. “Learning the language plays a key role in overcoming the intercultural differences,” she affirmed. “Without doubt, the language is the key to the culture”, she concluded.

The fourth day of the German Science Week concluded with the testimonial of the academic and professional experience in Germany from the DAAD alumni Dr. Eng. Hassan El-Mouelhi from TU-Berlin Campus El-Gouna. After his two previous interventions in the German Science Week, Dr. El-Mouelhi prepared a last presentation to share his story and to explain the projects he could develop thanks to the DAAD support. In fact, Dr. El-Mouelhi got the scholarship to study in Germany in 2009, which allowed him to continue his research in the field of architecture and urban planning abroad.

This was a turning point in his academic career, as going abroad is particularly beneficial for the result of research in his field. “Urban development is a field of study which involves cities and, my focus is studying the relation between the city and the people’s culture. Therefore, it is interesting to study it from various perspectives, in different cities and on different societies. Through an international academic programme, it is possible to learn from others’ cultures, put into perspective, reflect, discuss to enrich the research path” he stated in a successive interview. The city of Berlin was an interesting place to live, where urbanism mixes with nature and the comparison with Cairo was fascinating. As part of his PhD programme, Dr.El-Mouelhi joined a group of students into a research trip in Egypt in order to study the informal sector in Cairo. Together, they conducted some field work in the Egyptian Ashawayiyat. His academic experience also involved a variety of activities such as conferences, workshops and summer schools, as he believes that academia does not only involve studying but it equally necessitates a practical and diversified approach. In light of his positive research experiences abroad, Dr. El-Mouelhi encouraged Egyptians to continue studying in Germany and offered some advice. He stated that dedication and passion are fundamental prerequisites for starting this kind of experience. “Besides to the scientific skills, based on my experience, I would say that other soft skills are not less important, including communication and presentation skills. Networking and building trusts with new partners are also something that enhances and supports the academic career” he added in an interview following the conference.

Fifth day_ September 17th

After four days rich of informative presentations, stimulating debates and inspiring testimonials, the German Science Week concluded on Thursday, September 17th with a last presentation of one of the German Universities available to conduct research followed by a panel discussion to provide further guidelines for continuing the academic career in Germany.

Ms. Hoda El Maghoub, head of the Cairo Liaison Office of FU Berlin, presented Freie Universität Berlin (FU-Berlin). As a prominent international university with more than 500 partnerships worldwide, the FU-Berlin offers several opportunities for research in different departments including Law, Economics and Social Sciences, Humanities and Cultural Studies, Natural sciences, Veterinary Medicine, Medicine together with some institutions like the Institute for East-European Studies. FU-Berlin is also characterized by specific programmes such as the excellence initiative with five clusters of excellence where scholars and scientists work together in cooperation to research innovative solutions. Moreover, FU-Berlin hosts the distinguished Research Campus Berlin-Dahlem where scholars intensively collaborate in research joint junior research groups. Ms. El Maghoub equally underlined the favourable environment of the city of Berlin, which enables Egyptians choosing to do their research in Germany to engage into an enriching experience. She concluded the presentation by repeating the necessary steps in order to start a research project in Germany and the various available funding opportunities, which can be also found on the FU-Berlin website.

The core of the last session consisted into a lively panel discussion where various speakers were answering fundamental questions to understand how to best engage into a research programme in Germany.

“From your perspective, what are the advantages for Egyptian scholars and researchers in pursuing their academic career in Germany?” Ms. Mering, director of the DAAD Cairo was asked. She highlighted the outstanding research landscape of Germany and the commitment from the DAAD to

ensure the highest quality of research while offering opportunities for internationalisation and personal growth. “Going abroad generally is always beneficial for the individual career” she concluded.

Secondly, Ms. Johannes Moes, head of the TU Berlin oDOC-Office, was questioned about the characteristics that German universities’ professors are looking for while choosing a candidate to work with. Mr. Moes explained the importance to have the highest possible level of expertise in the field of choice and to possibly prove it with excellent master’s degrees and publications. In this regard, he reminds students of a fundamental point that was already highlighted by previous colleagues during the GSW: “First you should do research on the professors worldwide who do research in the field of interest and only then you will pick up the university for the PhD, but not the other way around”. He also clarifies that professors in Germany generally look for expertise, master’s degree holders, with an average age between 25 and 30 years old and students who are able to take over some work with the professor during the research.

The panel discussion proceeded with a more specific question on what are the basic academic qualifications required for a doctoral research. Zizheng Zangh, deputy director for the National Research Center at TU-Munich, listed a couple of essential elements, namely holding an outstanding master’s degree in a related subject. Moreover, some soft-skills are required such as being very active, being able to work and think independently, having high intercultural competence, self-management and self-motivation. Previous international experiences are advisable as well as learning the German language.

In a successive intervention, Dr. Michael Groll from the German University in Marburg further expanded on the specific requirements for candidates applying to German institutions. He confirmed the importance of having a good master’s degree in combination with high grades. He added the importance of communication and language skills, especially in order to effectively communicate with the supervisor and the team. Moreover, he offered some practical advice to catch the attention of professors by preparing all required documents in a well-structured and professional-looking way. Finally, he highlighted the importance of conveying strong motivation and passion for science, which will definitely make a good first-impression in the eyes of the professors.

Moreover, the panel discussion tackled the question of the major challenges that Egyptians face in doing their PhD in Germany. In light of his personal experience, Dr. Moemen Hanafy, Ambassador Researcher of the Alexander von Humboldt Foundation identified the funding issue, the language barrier and homesickness as the main difficulties young Egyptian scientists might face. Some cultural and environmental differences, such as the climate may also require further effort to adapt. Time management and a good work-life balance will be beneficial to overcome the challenges. This view was confirmed by other DAAD alumni in successive interviews after the conference. For example, DAAD alumni Dr. Mo’men Elsoudani advised any Egyptian willing to study in Germany to start learning German. He also highlighted the possible challenges in socializing and the need to open yourself and be curious. “Keep smiling, keep networking because this is the key to open your network; understand the culture, learn lessons in life and in your discipline” he concluded.

Later in the conference, Ms. Mering shared additional advice for submitting a successful application. As it is often the case that students do not receive answers to their emails, she suggested submitting very convincing proposals. which must catch the attention of professors. Starting early the research of supervisors and the application process are also fundamental elements to keep in mind as well as

being very specific in the email given the overload of work most German professors have. Dr. Michael Groll from the University of Marburg added the importance of showing the applicant's added value to the research in case of a collaboration in a team of research.

In addition, the panel discussion shed the light on key research topics for which Egyptian and German cooperation is beneficial. Mr. Philippe Maupai, Head of Science and Protocol from the German Embassy in Cairo highlighted the primacy of the environmental field, especially research and development in water resource management and alternative energy. A couple of other fields have been traditionally at the center of German-Egyptian scientific cooperation such as engineering and the medical field.

Moreover, Dr. Florian Kohstall from FU-Berlin highlighted the long-standing tradition of scientific exchange between Germany and Egypt. He explained the way Egyptian universities are increasingly moving towards internationalisation and the challenges they are facing because of the current global pandemic. While developing an efficient internationalisation system at the academic and administrative level, Egyptian universities have difficulties in promoting mobility. Therefore, there is an urgent need to rethink the concept of internationalisation and mobility, which was probably too exaggerated before the global pandemic. He mentioned the example of professors using a transatlantic flight to give a five-minute speech in a conference and the necessity to reconsider the impact this kind of mobility had on the environment. On the contrary, exchange programmes for students necessitate mobility and the digital options for studying cannot represent a permanent effective solution.

Finally, Ms. Mering was asked about the benefits for Egyptian institutions from encouraging research in Germany. She highlighted the high standards of German research institutions, which will inevitably lead to high standards research results. Therefore, the internationalisation strategy at the national level will also benefit from these exchange programmes in addition to the scholars directly involved into it. She equally reminded the numerous successful stories of DAAD alumni, as expressed during the entire German Science Week, both at the academic, professional and personal level.

Conclusion

Even though the character of this year edition of the German Science Week was transformed because of the exceptional circumstances of the global pandemic, the DAAD has been able to provide a various, stimulating and rich event in a digital format. "It is a very precious initiative for Egyptian students because they can have more information about the German system and understand the benefits and challenges of learning and researching in the German academic environment", Mr. Mohammed Taha, one of the speakers of the conference, explained. "This week should be a necessary annual event on the agenda of Egyptian scholars", he concluded. The director of the DAAD Cairo, Ms. Isabell Mering, also shared her thoughts on the outcome of the event, that the first digital German Science Week 2020 has been a great success. We tried to shed some light on the pathway to proceeding the academic career in Germany for Egyptian young scholars and researchers which is stated DAAD's mission "change by exchange".

Overall, the digital edition of the "German Science Week 2020" succeeded in offering a space for exchange, networking and intellectual development beneficial for all those ambitious Egyptian scholars who desire to continue their academic carrier in Germany.

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