

HORIZON 2020 – WIDESPREAD-2018-01-TEAMINGPHASE2 EMME-CARE | GRANT NO. 856612

D2.5. Mid-term Report on the R&D Mobility Programme

Date: February 2025











Deliverable Number	Deliverable Title	Lead Beneficiary	Туре	Dissemination Level	Due Date (in months)
D2.5	Mid-term Report on the R&D Mobility Programme	1 – CYI	Report etc.	CO	M66

Version	Date	Changed page(s)	Cause of change	Partner
V1	01/01/2025	Initial version		CYI
V2	27/02/2025	Final Version		CYI

Disclaimer. The information in this document is subject to change without notice. Company or product names mentioned in this document may be trademarks or registered trademarks of their respective companies.



The document is proprietary of the EMME-CARE Consortium Members. No copying or distributing in any form or by any means is allowed without the prior written agreement of the owner of the property rights.

This document reflects only the authors' view. The European Community is not liable for any use that may be made for the information contained herein.





Table of Contents

I. Introduction	4
I.1. R&D Mobility Programme as per the EMME-CARE DoA	4
I.2. Additional R&D Mobility activities to mitigate the impact of regional crises	5
I.2.1. Regional context	5
I.2.2. Additional R&D Mobility activities	5
II. The EMME-CARE Professorship Programme (Task 2.4.a)	6
II.1. Concepts	6
II.2. Programme update	6
II.3. Achievements of the EMME-CARE Professorship Programme Phase I	7
II.4. The EMME-CARE Professorship Programme Phase II	7
III. The EMME-CARE Living Lab Programme (Task 2.4.b)	8
III.1. Concept	
III.2. Programme update	
IV. The Cyl Affiliation Programme (Task 2.4.c)	
IV.1. Concept	10
IV.2. Programme Update	10
V. Additional R&D Mobility activities	
V.1. Extension of regional R&D mobility to new EMME countries.	12
V.2. Engaging regional collaborators into European and Internationally funded projects	13
V.3. Institutional Collaboration framework promoting mobility.	14
V.4. The regional Climate Change Initiative	15
V.5. Leveraging EU funding opportunities to promote R&D mobility	15
V.6. Promoting Trans-National Access scheme	16
VI. Late submission of D2.5 : Added value and Positive impact	16
VII. Conclusion and prospect	17
VII.1. R&D Mobility Programme in the EMME	17
VII.2. R&D Mobility Programme in Europe	18
Annex I: Joint publications with EMME-CARE Professors	
Annex II: List of ERAMUS+, COST Actions, MSCA Fellowships	





I. Introduction

I.1. R&D Mobility Programme as per the EMME-CARE DoA

The CARE-C Centre of Excellence established on 1st of January 2020 under the Grant Agreement of the "**Eastern Mediterranean Middle East – Climate and Atmosphere Research**" Project (*EMME-CARE, H2020 GA no.856612*) provides scientific, technological and policy solutions through the establishment of a world-class Centre of Excellence focusing on environmental challenges.

The **Deliverable D2.5**. at hand, as per the GA, represents the "*Report on the R&D Mobility Programme; mid-term*", outlining the status of the CARE-C CoE activities in regards to Task 2.4 led by CyI, as detailed below which summarizes the structure of WP2. In addition to being pertinent to the EMME-CARE Project's activities, this report also presents R&D mobility in relation to the CARE-C Centre overall.

Work package number	2	Lead Beneficia	СуІ		
Work package title	HR Recruitment and Mobility Programme				
Participant number	1	2 3	4		
Short name of participant	Cyl	MPIC CEA	UHEL		
Person months per	120	9 9	9		
participant:					
Start month	M1	End month	M84		

Objectives: This WP will be the responsibility of the HR Office of the CoE in close collaboration with the Cyl HR Office and Advanced Partners. The HR Office will support the new CoE in substantially expanding staff (up to 100) to attain critical mass in pursuing excellence in its research thrusts. It will support the CoE in creating a thriving environment so that senior scientists and their teams may develop along a similar trajectory to institutions with established traditions in excellence. It will also support the **implementation** of the R&D Mobility Programme and enhance the CoE's regional connectivity.

Description of work

Task 2.1 HR Strategy for Researchers (Lead: Cyl) (M1- M18)

Task 2.2 Open, Transparent and Merit-based Recruitment (Lead: Cyl) (M3-M84)

Task 2.3 Working Environment, Performance Evaluation and Career Development (Lead: Cyl) (M3-M84)

Task 2.4 R&D Mobility Programme (full description in Section 1.3.6.1) (Lead: Cyl) (M3-M84)

a. Recruitment of the EMME-CARE professors: phase I (M6-M24) (e.g. from top institutions already identified in Greece, Lebanon, Kuwait, UAE) and phase II (M36-M60) (from institutions to be engaged from Israel, Jordan, Turkey, Syria, Iraq, Saudi Arabia, Qatar, Iran).

b. Implementation of the EMME-CARE Living Lab Programme. Joint research contracts with Advanced Partners (M6); recruitment of technical/research staff (M6-M48)

c. Implementation of the Affiliation Programme (M6-M84) with the Advanced Partners and high-profile researchers/technical specialists (from the EMME region).

Deliverables

D2.4: Report on the R&D Mobility Programme; mid-term (M54) and final (M84)

Promoting R&D mobility involves creating an environment where researchers, scientists, and innovators can easily move across borders, collaborate, and exchange knowledge. As per the DoA (Section 1.3.6.1. "R&D Mobility Programme"), "...in order to further enhance the attractiveness of the new





CoE and foster international exchange, three mobility support programs will be rapidly implemented and will be maintained after the duration of the initial seven-year H2020 period".

- 1. The EMME-CARE Professorship [with Regional Partners] & Cyl Affiliation Programmes
- 2. The EMME-CARE Living Lab Programme [with Advanced Partners].

These Programmes have been implemented from the very start of EMME-CARE and their progresses until Feb. 2025 are detailed in the following sections.

I.2. Additional R&D Mobility activities to mitigate the impact of regional crises

I.2.1. Regional context

Several additional activities (not initially planned in the EMME-CARE DoA) have been considered as extra support measures to better achieve the goals of the EMME-CARE R&D Mobility Programme and mitigate *"force majeure"*, which could not have been considered at the time of the drafting of this DoA.

The "force majeure" relate to two major types of incidents:

- i. The COVID-19 pandemic and associated strong mobility restrictions across Europe and the further closure of national borders in the EMME region (ca. from Spring 2020 to Autumn 2022), drastically limiting regional mobility opportunities in the first 2-3 years of EMME-CARE.
- ii. The societal, economic, and political instabilities that have persisted in the region since the establishment of the CoE, along with recent escalating tensions in the Middle East. This has hindered the establishment of collaborations, and/or has led to the abrupt pausing of collaborative activities between the CoE and organisations in Qatar, Israel, Lebanon, Iran, and Syria. For the latter, it is also worth noting that there is also an issue of lack of expertise, as to the best of our knowledge, there is currently no scientific experts in Syria working on Air Pollution & Climate Change with which a collaboration could be pursued.

I.2.2. Additional R&D Mobility activities

In response to the above, the additional support measures of the R&D Mobility Programme, which were considered at CARE-C level (i.e. in addition to the specific EMME-CARE R&D Mobility Programme) here include:

A. Redirect our regional R&D mobility from EMME countries initially planned in the DoA which remained and/or became "unsafe" or difficult to collaborate with (Syria, Israel, Iran) towards more "safe" countries (UAE, Saudi Arabia), in which scientific collaborations were not established so far.

B. Engaging regional collaborators (Greece, Lebanon, Egypt, Jordan) into European and Internationally funded projects (Horizon Europe, INTERREG, World Bank) in order to provide additional R&D activities to further develop the regional footprint of the CoE.

C. Provide institutional frameworks such as MoU (Memorandum of Understanding) to promote regional collaborations through bilateral agreements, formulating and formalizing strategies to use mobility (field campaigns, visits) in order to achieve EMME-CARE Research, Innovation, and Educational Objectives.
D. Leverage the re-launched EMME Climate Change Initiative of the Cyprus Government and associated networking activities as a support mechanism for the EMME-CARE R&D Mobility Programme.

E. Engage CARE-C faculty and researchers in participating (as coordinators or beneficiaries) into EU funding opportunities featured to promote R&D mobility (e.g. MSCA, ERASMUS+, COST Actions).

F. Engage CARE-C research facilities and staff into Trans-National Access scheme in order to 1) physically access to cutting-edge research facilities to enhance the CoE R&D portfolio and capacity, 2)





promote international collaborations and networking (associated mobility), further develop career of young researchers with international experience, 3) with extra benefits related for instance to Open Science and data sharing.

Each of these support measures (A to F) are presented in the following (section V) as part of the midterm evaluation of the EMME-CARE R&D Mobility Programme. Perspectives are given in the end, how this R&D Mobility Programme is likely to progress until the end of EMME-CARE and beyond.

II. The EMME-CARE Professorship Programme (Task 2.4.a)

II.1. Concepts

As per the DoA, "In recognition of the need to develop regionally-oriented scientific knowledge of climate change impacts and to better integrate current and future national interests and policies within the EU framework, the EMME-CARE Professorship Programme will develop a Mediterranean and Middle Eastern science and policy strategy on climate change, one which will address issues relevant to economic sectors and society as a whole. The programme will be a cornerstone of the new Impact and Policy Department and will act as a multiplier of regional resources with mutual benefits, using Cyprus as a bridge between regional partners and the EU.

In each participating country identified during EMME-CARE phase I (Greece, Lebanon, Egypt, Kuwait, UAE), EMME-CARE will co-fund one full-time (or several part-time) tenured faculty position(s), within a leading university or research centre, on scientific activities related to climate change "Impacts & Policies". It will support their research activities, which will be pursued in collaboration with their 'parent' institution and Cyl. This could either involve recruiting a new faculty member or endowing an existing professor. The selection committee will be equally composed of members of the CoE's management board and the selected university or research organisation.

II.2. Programme update

While a total of five (5) Professorships were initially planned (Greece, Lebanon, Kuwait, Egypt, UAE), we have been able to implement two at the early stage of EMME-CARE (before the COVID pandemic):

• Prof. Costas Cartalis from the National & Kapodistrian University of Athens, Greece (NKUA, <u>https://www.cyi.ac.cy/index.php/care-c/about-the-center/care-c-our-people/itemlist/user/1121-</u> <u>constantinos-cartalis.html</u>)

• **Prof. Charbel Afif from University St Joseph, Beirut** (USJ, <u>https://www.cyi.ac.cy/index.php/care-c/about-the-center/care-c-our-people/itemlist/user/962-charbel-afif.html</u>)

Specific MoUs with the National Kapodistrian University of Athens (NKUA) and University Saint Joseph (USJ) were signed to frame the research collaboration of these two (2) EMME-CARE Professors.

The reasons why this programme was not fully implemented with more EMME-CARE Professors so far can be summarized as follow:

1. The above mentioned "force majeure" and regional crises which hindered the regional development of this Programme.

2. More specifically, the discussions with Kuwait Institute for Science and Research (KISR, Kuwait) did not materialize because they found out that the EMME-CARE project has in its plan (DoA) to collaborate with Israeli scientists. Our proposition for bilateral collaboration (CyI-KISR) was not accepted. We have reactivated this collaboration after COVID, but still with no success. With the support of regional collaborators, we will re-explore it again before the end of EMME-CARE.





The establishment of the UAE and Egyptian Professorships is currently under progress. We did not find a suitable (internationally renowned) Egyptian Professor with expertise relevant to EMME-CARE. But we did find a suitable (internationally renowned) UAE (Associate) Professor with capacities to engage in collaborations with Cyl (see later below section II.4.).

As mentioned above, and to compensate the difficulties met to engage many EMME-CARE Professors, several support measures were taken. These are presented hereafter (see section V).

II.3. Achievements of the EMME-CARE Professorship Programme Phase I

Our two (2) EMME-CARE Professors have been key in achieving the following:

1. Establishing the first Joint PhD between Cyl / CARE-C and a top Greek University (NKUA) funded by EMME-CARE (K. Koutroumanou-Kontosi; https://www.cyi.ac.cy/index.php/care-c/about-thecenter/care-c-our-people/itemlist/user/1262-konstantina-koutroumanou-kontosi.html).

2. Engaging actively CARE-C (as Associate Partner) into the Greek Flagship "CLIMPACT" Project (Science at the service of the State and Society for tackling Climate Change, https://climpact.gr/main/) 3. Jointly disseminating scientific results; e.g. seven (7) Joint peer-reviewed scientific publications on Air Pollution in Lebanon/Cyprus (See list in Annex I).

4. Engaging CARE-C in the provision of services to the Egyptian Ministry of Environment (financially supported by the World Bank Group): 3 ongoing service contracts on Air Quality over the Greater Cairo (https://emme-care.cyi.ac.cy/care-c-of-the-cyprus-institute-and-egypt-ministry-of-environment-Area join-forces-to-better-air-quality-in-cairo/)

5. Organizing and chairing the Annual Online Scientific Workshop on "Climate & Atmosphere Research & Innovation in the Eastern Mediterranean & Middle East" (https://emme-care.cyi.ac.cy/3rd-emmeclimate-workshop/) which has brings annually >250 participants from >30 different countries.

6. Engaging CARE-C in new regional collaborations such as participating to the POLCAIR project with field deployment of scientific instruments to monitor air pollution in Greater Cairo (see more at https://cao.cyi.ac.cy/cairo/).

7. Co-supervision of Cyl PhD students (Aliki Christodoulou, Elie Bimenyimana, Emeric Germain-Piaulenne) and therefore co-authoring their scientific publications (see Annex I).

II.4. The EMME-CARE Professorship Programme Phase II

As per the DOA, EMME-CARE Professorship Programme has a Phase II (M36-M60) to engage institutions from Israel, Jordan, Turkey, Syria, Iraq, Saudi Arabia, Qatar, Iran. As mentioned above, the successive regional crises and current socio-economic/political context, we cannot realistically implement this Phase II for Israel, Syria, and Iran.

The update for the other countries is as follow:

 Egypt: In the framework of the POLCAIR project (joint field campaign in Cairo beginning of 2020), we have established several good collaborations with the NRC (https://www.nrc.sci.eg/) (Dr. Ali Ahmed Wheida, Prof. Dr. Salwa Kamal, Dr. Mostafa Mahmoud El-Nazer, Dr. Mohamed Mahmoud Boraiy) and Cairo University (Prof. Mohamed Magdy Abdel Wahab) leading to joint publications. However, we did not establish any of them as an EMME-CARE Professor, as the added value for CARE-C was not clear and none of them appeared as with international profile and good potential to develop within the CoE. Egyptian colleagues will be engaged through a different scheme (e.g. direct collaborations with MoUs, participation in research funded calls, etc).

 United Arab Emirates: We recently initiated several research activities with the ENGEOS team of Assist. Prof. Diana Francis (https://www.ku.ac.ae/college-people/diana-francis) from Khalifa University (KU, https://www.ku.ac.ae/), Abu Dhabi. A MoU is under preparation with this university. Prof. Francis





will co-supervise with EMME-CARE Coordinator (J. Sciare) a PhD student of the MSCA DUST-DN project (see more information in section V). CARE-C will also establish two atmospheric monitoring stations for GHG and Aerosols in Abu Dhabi (Khalifa University premises) and the desert region of this Emirate (a co-supervised PhD position will open at Khalifa University to scientific exploit this data). Joint affiliation (from both sides Cyl and KU) have been discussed as well.

Kingdom of Saudi Arabia: we have recently identified a potential candidate (Sergey Osipov; https://atcm.kaust.edu.sa/people/detail/sergey-osipov from the prestigious King Abdullah University of Science & Technology, KAUST, 1st world ranked Arabic university, https://www.kaust.edu.sa/en/) with publications (e.g. which we have already joint scientific Osipov et al., 2022; https://doi.org/10.1038/s43247-022-00514-6). A MoU with KAUST is in preparation to formalize this collaboration.

• **Qatar:** we have initiated joint scientific collaborations (with MoU) with the Qatar Energy & Environment Research Institute (QEERI, <u>https://www.hbku.edu.qa/en/qeeri</u>) and Hamad Bin Khalifa University (<u>https://www.hbku.edu.qa/en</u>) (Christos Fountoukis, <u>https://www.hbku.edu.qa/en/staff/christos-fountoukis</u>).

• **Iraq:** In December 2023, the Cyprus Institute welcomed the President of Iraq (more information <u>here</u>). While active (international renowned) scientific experts on Air Pollution & Climate Change from Iraq could not be located, an agreement was signed between the government of Iraq and the Cyprus Institute to support (through scholarships) Iraqi students in pursuing their research and education at the CyI. This mechanism will be leveraged as soon as we identify competitive Iraqi students ready to get enrolled.

• Jordan: Despite a MoU signed with the University of Jordan (Prof. Tareq Hussein) and several attempts to engage this university in regionally funded projects (H.E. Cluster 5, INTERREG Next MED), we did not manage to make significant progress in developing scientific collaborations in this country that will help us to identify a competitive researcher / faculty who could be engaged with CARE-C. Prof. Hussein relocated in Finland and discussions to perform field measurements in Jordan did not materialize yet (e.g. current restrictions to fly our drones in Jordan). Nevertheless, we will continue to investigate possible collaborators in Jordan.

III. The EMME-CARE Living Lab Programme (Task 2.4.b)

III.1. Concept

As per the DoA: "With four EU member states involved in the H2020 Teaming, EMME-CARE has a clear international dimension aiming at establishing a world-class CoE in the EMME region. Acknowledging the need for an efficient and sustainable collaborative working environment within the Teaming Consortium, the new CoE will launch from its very beginning an ambitious "Teaming Living Lab" research mobility programme. Inspired by the successful CNRS "International Associated Laboratory" programme, this laboratory "without walls", will establish a pool of mobile researchers working part-time in at least two organisations from the Teaming Consortium. They will feed the CoE with a new generation of researchers and provide a truly international research and innovation culture."

III.2. Programme update

At first, we had to align the above strategy with the Cyprus Institute working contract policy which does not allow for two (2) employments at the same time. The EMME-CARE project enabled collaboration with colleagues at Advanced Partners, which raised the visibility and attractiveness of CyI/CARE-C as an employer. Therefore, when new positions were advertised at CARE-C, advanced partner colleagues were motivated to apply. Through the CyI competitive recruitment process, a total number of 12 staff who were previously employed at EMME-CARE Advanced Partner Institutions (CEA, UHEL, MPIC)





were recruited in CARE-C; half of them with long-term contracts (and prospects); herewith contributing and sustaining to the expected transfer of scientific and technical skills and knowledge to the CoE. We present below a brief summary of the research & technical staff who underwent this scheme and how their transfer from the Advanced Partners has benefited CARE-C.

Faculty and Researchers: Two junior Cyl Faculty (E. Bourtsoukidis and T. Jokinen) were initially employed by our Advanced Partners (MPIC and UHEL, respectively) as researchers / Postdoctoral fellows at the start of EMME-CARE. Discussions were initiated to assess their interest to relocate their research at the CoE and whether their research would align with the EMME-CARE research, innovation, and educational objectives. Outcomes of these discussions were positive. Both applied to our Faculty position opening end of 2021 and were selected / recruited at the Cyprus Institute beginning of 2022 as Assistant Professor following the Cyl competitive recruitment process.

In addition, we recruited in 2023 (again through a competitive process) a part-time (25%) Professor (Philippe Ciais) from CEA in order to further develop GHG emissions scientific activities, which are strategic to develop for the EMME region which is the third and fourth global emitter of CO2 and CH4, respectively.

<u>Added value & positive impacts:</u> Retrospectively, the recruitment of the junior two Faculty (who originally performed their research with our Advanced Partners) had the strongest impact on the rapid development of new research thrust at CARE-C in the field of VOCs and New Particle Formation, which scientific topics are closely interconnected. Both recruitment have significantly enhanced collaborations with MPIC and UHEL through 1) technical staff exchange (training at Advanced Partners laboratories), 2) joint publications (reported annually in EMME-CARE / WP9 / DEC deliverable), 3) joint participation in field measurement campaigns in the EMME (using state-of-the-art Advanced Partners' scientific instruments), 4) joint participation in internationally funded research projects, and 5) access to international collaboration networks of MPIC/UHEL. One the most positive outcomes of these two recruitments is the prestigious ERC Starting Grant won by one of the two in 2023.

The recruitment of the more senior Faculty (P. Ciais) allowed to get involved (as beneficiary) into many EU projects on GHG emissions (H2020 "CoCO2", ESA "WOREM", H.E. Hop-On "AVENGERS), herewith gaining expertise, visibility, and reputation. P. Ciais is also actively co-supervising PhD students with CARE-C in the framework of the H.E. Edu4ClimAte projects (2 PhD students) and co-signed with CARE-C Faculty/Researchers numerous publications in top ranked journals.

Graduate Research Fellows (PhD students): Together with the CEA (Advanced Partner), CARE-C has co-supervised so far four (4) joint PhD students (+ one under recruitment). Three (3) have already graduated (Y. Liu, A. Rey-Pommier, E. Germain Piaulenne). These students were registered both at the Cyl Graduate School (EEAS Doctoral program) and University Paris-Saclay (1st EU university in the Shanghai world ranking). Under this scheme, each student is funded 50% by CEA and 50% by CARE-C. They spend 50% of their time at CEA (LSCE, Gif/Yvette, France) and 50% at Cyl (Nicosia, Cyprus). Specific Joint PhD agreements are signed to formalize several aspects such as administrative, financial, and educational.

The success of this joint PhD scheme with CEA was recently extended to UHEL (another Advanced Partner) who initiated two (2) joint PhDs with CARE-C (F. Schmid-Ott, N. Deot). It was not possible to implement this scheme with MPIC due to complex administrative issue with University of Mainz.

<u>Added value & positive impacts:</u> This joint PhD scheme with obtention of two PhD diplomas allows to attract very competitive students; e.g. the top ranking of University Paris-Saclay contributes also to the success (attractiveness) of this scheme. The very broad scientific topics of the PhD projects have benefited to many Research Groups at CARE-C; they include UAV-based measurements of greenhouse gas (GHG) emissions, satellite-based estimates of NOx emissions over the EMME region (Qatar, Egypt, Cyprus), source apportionment of methane emissions in Cyprus and around the Arabic



Peninsula, earth system model of land surface processes driving dust emissions, etc. Knowledge accumulated by the CoE through this joint PhD scheme has therefore benefited to a large extent to all Departments.

Research Technical Scientist: CARE-C has recruited (through competitive process) at the beginning of EMME-CARE (2020) two (2) technical experts from CEA (A. Orgun, P.-Y. Quéhé) with strong expertise in GHG measurements, which knowledge was highly strategic but completely missing at CARE-C. For both cases, their contract with CEA was ending and could not be renewed. More recently (2024), a new staff from UHEL (Rima Baalbaki) joined CARE-C as a senior technical staff to strengthen our skills on aerosol measurements.

<u>Added value & positive impacts:</u> This transfer of technical expertise had many great benefits for CARE-C including 1) the establishment of the INEIA atmospheric supersite (west of Cyprus) which performs for the first time in Cyprus (and for the last 2 years) high quality GHG observations complying with international (ICOS) standards. This technical staff play a critical role in supporting research of young researchers (PhDs, Post-docs). They have developed unique UAV-GHG technology which is exploited within several new (recently funded) EU research projects.

IV. The Cyl Affiliation Programme (Task 2.4.c)

IV.1. Concept

As per the DoA, "EMME-CARE's regional connections and networks will be supported at institutional level by both the Professorship and the Living Lab Programmes. These will be complemented by a broader programme, already implemented at Cyl for adjuncts and affiliates with engagement (and possible remuneration) of up to 20% FTE. This programme has proved to be extremely beneficial for the Atmosphere and Climate Division, which currently has 10 affiliates. They are closely involved in a variety of activities including: R&D projects (the PIs of successfully funded projects), teaching and co-supervising students on the masters and doctoral programmes, pursuing scientific dissemination activities (contributing to peer-reviewed publications, addressing international conferences) along with active regional networking and outreach work. This programme will enhance EMME-CARE's regional network, which is critical for the achievement of its research, innovation and educational objectives."

IV.2. Programme Update

The current list of CARE-C affiliates is presented below with the start of the affiliation contract with CARE-C. Note that EMME-CARE Professors (C. AFIF, C. CARTALLIS) are listed here since they also benefiting from this affiliation scheme.





Last Name	First Name	Employment Date	Position	Contract Expiry Dat	Nationality
Afif	Charbel	01/01/2018	Adjunct Professor	31/08/2025	LBN
Cartalis	Constantinos	01/07/2020	Adjunct Professor	30/06/2025	GRC
Charalambous	Demetris	01/01/2018	Senior Research Affiliate	31/12/2024	СҮР
Constantinides	Christos	01/09/2024	Research Affiliate	28/02/2025	СҮР
Keleshis	Christos	01/09/2024	Research Affiliate	28/02/2025	СҮР
Koutras	Nikolas	01/09/2020	Senior Research Affiliate	31/08/2023	GRC
Martinou	Angeliki	01/07/2018	Research Affiliate	30/06/2025	СҮР
Michaelides	Silas	16/09/2015	Adjunct Professor	31/12/2024	СҮР
Paris	Jean-Daniel	01/07/2020	Senior Research Affiliate	30/06/2025	FRA
Roland	Sarda Esteve	02/09/2019	Research Affiliate	31/08/2025	FRA
Schmidt-Ott	Andreas	01/10/2016	Adjunct Professor	30/06/2025	DEU
Tymvios	Filippos	01/01/2018	Senior Research Affiliate	31/12/2024	СҮР
Vlachou	Dina	01/10/2013	Adjunct Assistant Professor	31/08/2022	GRC
Williams	Jonathan	01/06/2012	Adjunct Professor	30/09/2024	GBR
Pozzer	Andrea	01/04/2022	Adjunct Associate Professor	31/03/2025	ITA
Fakhri	Nansi	01/08/2023	Research Affiliate	31/07/2024	LBN

As highlighted in this table, we have affiliated several researchers from both CEA and MPIC (total of 4) with the objective to foster knowledge and technology transfer from Advanced Partners to the CoE with the ultimate goal to have sufficient capabilities, capacities, and legitimacy to lead new regional (EMME) activities.

<u>Added value & positive impacts:</u> All these Advanced Partners' affiliates bring a major contribution to the development of the CoE. More specifically,

• **R. Sarda-Estève (CEA)** is operating the long-term observations of bioaerosols (spores, bacteria, pollen) in Cyprus, which observations are critical (the only one on the island; Cyprus being the only EU country with Ireland without nationally supported bioaerosol monitoring programme). His past/current contribution (with scientific instruments) concerns field measurements in Cyprus, Egypt, UAE, which allow CARE-C to further develop its regional collaboration networks and foster its scientific production

• J.-D. Paris (CEA) has co-supervised at CEA two out of the three graduate joint PhD students with CARE-C (see above), herewith co-authoring several publications with the CoE. He has engaged the UAV-GHG technology developed by CARE-C into large EU projects (e.g. H.E. IM4CA, H.E. HYWAY). He is leading the GHG Research Group under the Environmental Observations Departments (4 research staff) and he is also teaching several lessons in our ES Master Programme.

• **J. Williams (MPIC)** is also teaching lessons in our ES Master Programme. He is supporting the CARE-C VOC Research Group (led by E. Bourtsoukidis, see above) with scientific instrumentation, field measurement campaigns, and scientific dissemination (joint publications)

• **A. Pozzer (MPIC)** is the most recent Advanced Partners' affiliate. He is engaged in reinforcing the atmospheric modelling component of CARE-C (Environmental Predictions Department) with transfer of knowledge on these models and joint publications.





All Advanced Partners' affiliates come regularly (in person) at the Cyprus Institute for teaching, performing field measurements, training and co-supervising students, and overall reinforce the role of Advanced Partners' mission to support the CoE and sustain its excellence.

As noted in the table, and as of end of February 2025, we currently have a large number of affiliates from the region (1 from Greece, 2 from Lebanon, 3 from Cyprus).

• **D. Charalambous, S. Michaelides, and F. Tymvios** (affiliations ending in Dec. 2024 for DC and FT, April 2025 for SM) are employees of the Cyprus Department of Meteorology (DoM) (located 3km away from the Cyl campus in Nicosia). Their main contribution here concerns 1) the teaching of MSc (Meteorological track aligned with the WMO BIP), 2) the participation in several ongoing/past research projects of CARE-C, 3) the liaison between CARE-C and DoM for the various collaboration activities between the two institutions (Direct Assignment to build a web portal for historical Cyprus meteorological as per EU directive, co-operation of automated weather stations across Cyprus, access to the Cyl HPC for national forecasting, etc). This collaboration with DoM is maintained (through MoU) but does not engage anymore affiliates.

• **N. Fakhri (USJ, Lebanon),** is supporting the implementation of our three World Bank multi-year contracts with the Egyptian Ministry of Environment to support them in upgrading the Greater Cairo Air Quality Monitoring/Forecasting capabilities. She is fluent in Arabic which is of great support when it comes to train on-site Egyptian staff on experimental / modelling tools.

• **C. Constantinides & C. Keleshis** are former Cyl employees and remain affiliated to CARE-C in order to provide support in drone technology and allow CARE-C to sustain this strategic activity through transfer of knowledge and training of new staff. These affiliates will terminate their contract in 2025.

• **N. Koutras** has been affiliated with CARE-C in the first years of EMME-CARE (until 31/08/2023) to better connect our drone activities with industrial applications. Collaborations with N. Koutras are still ongoing in various projects.

• **D. Vlachou** (affiliation ended end 31/08/2022) and **A. Martinou** (ongoing affiliation) have been / are supporting the "One Health" Research Group of the Impact & Policy Department.

V. Additional R&D Mobility activities implemented in CARE-C

V.1. Extension of regional R&D mobility to new EMME countries.

Along the development of EMME-CARE and to mitigate the above-mentioned regional crises, CARE-C has widened its regional R&D mobility from EMME countries which remain and/or became "unsafe" (Syria, Israel, Iraq, Iran) towards more "safe" countries (UAE, Saudi Arabia) in which scientific collaborations were not established so far.

United Arab Emirates (UAE)

• EAD: Leveraging the new research vessel of the Environmental Agency of Abu Dhabi (EAD), we signed with them a MoU in December 2022 and perform two (2) oceanographic cruises (AREAD and THOFA campaigns) with the active participation of many Cyl scientific and technical staff. (https://www.cyi.ac.cy/index.php/cyi-news/ead-in-partnership-with-care-c-and-max-planck-institute-for-chemistry-complete-world-first-offshore-atmospheric-research-expedition.html). These two campaigns (part of a joint PhD project with CEA) has led to important scientific exploitation and publications. See press release at : https://www.cyi.ac.cy/index.php/cyi-news/ead-in-partnership-with-care-c-and-max-planck-institute-for-chemistry-complete-world-first-offshore-atmospheric-research-expedition.html). These two campaigns (part of a joint PhD project with CEA) has led to important scientific exploitation and publications. See press release at : https://www.cyi.ac.cy/index.php/cyi-news/methane-emissions-in-the-mediterranean-and-middle-east-new-research-led-by-the-cyprus-institute-reveals-gaps-in-regional-emission-inventories.html



• **Ajman Municipality:** In October 2024, the Cyl (CARE-C) and the Emirate of Ajman (next to Dubai) signed a MoU which will promote research collaborations (and staff mobility) between the two institutions. Press release at : <u>https://www.cyi.ac.cy/index.php/cyi-news/cyi-and-municipality-and-planning-department-of-ajman-uae-sign-mou-on-environmental-sustainability-and-clean-energy.html</u>

• **RICARDO**: CARE-C partnered with RICARDO (a world leader in Air Quality consulting, <u>https://www.ricardo.com/en</u> with offices based in UAE) to deliver Air Quality services (PM chemical analyses) to EAD, herewith building regional capacities, with on-site technical training (October 2024).

• Khalifa University (KU): Scientific collaborations were initiated with Prof. Diana Francis in order to foster our scientific activities in the UAE. A MoU is getting finalized between CyI and KU (signing ceremony planned in Spring 2025). D. Francis will co-supervise with EMME-CARE Coordinator (J. Sciare) a joint PhD student recently funded in the framework of the Marie-Curie Doctoral Network "DUST-DN" (https://dust-dn.cyi.ac.cy/), which is coordinated by CARE-C. Scientific equipment is currently shipped to KU in order to initiated long-term observations of GHG and Aerosols in UAE (urban and desert sites) with the prospect of further scientific exploitation and co-supervised PhD students.

Kingdom of Saudi Arabia (KSA)

• National Centre for Meteorology (NCM): the Cyprus Institute partnered with a local company (Kent PLC) to support NCM in operating a desert storm early warning system network of 8 atmospheric stations across the Kingdom. On-site training of NCM staff (with mobility between Cyprus and KSA) is part of this collaboration. Discussions are undergoing for an extension of this collaboration to develop a network of atmospheric supersites financially supported by the GCC (Gulf Cooperation Council, https://gcc-sg.org/en/Pages/default.aspx). Scientific dissemination activities are also part of this collaboration with NCM (see press release at : https://emme-care.cyi.ac.cy/the-director-of-care-c-contributed-to-the-first-international-conference-on-sand-and-dust-storms/).

• National Centre for Environmental Compliance (NCEC): NCEC is the governmental body in charge of Air Quality monitoring in the KSA. Discussions have been initiated in February 2025 to enhance collaborations with CARE-C and provide guidance / build technical capacities as currently done with Egyptian Ministry of Environment (World Bank contracts, see above).

V.2. Engaging regional collaborators into European and Internationally funded projects

CARE-C is engaged in a very large portfolio of (EU funded) research projects with a major regional footprint aligned with EMME-CARE Research, Innovation, and Education objectives, herewith naturally promoting the overall R&D mobility of CARE-C.

For example, the ongoing H.E. Edu4ClimAte (coordinated by CARE-C, Project No.: 101071247) will lead capacity-building actions in Cyprus and Greece, the strengthening of their Higher Education European networks and their cooperation with surrounding national ecosystems, on research & innovation activities to address challenges relating to air pollution and climate change in support of the EU Green Deal, with a specific focus on the Eastern Mediterranean and Middle East (EMME). A large suite of R&D Mobility activities are allocated in this project such as joint PhD projects, summer schools, conferences, etc. More information at (<u>https://edu4climate.cyi.ac.cy/</u>).

Specific tools (such as the INTERREG Next Med, <u>https://www.interregnextmed.eu/</u>) have also been shaped by Europe to engage (non-European) regional collaborators. We are actively engaging in such



funding opportunity under the Priority 2 – "A greener, low-carbon and resilient Mediterranean" (subobjective "Promoting climate change adaptation and disaster risk prevention, resilience taking into account eco-system based approaches") by engaging collaborators from Greece, Lebanon, Egypt, Jordan, and Cyprus in developing early warning systems for desert dust storms. (Proposal not funded in 2024 and resubmitted in 2025).

Since end of 2024, CARE-C of the Cyprus Institute is partner of '*Innovative Solutions across the MEDiterranean for mitigation of Climate change-related heaLth rlsks and enhancing health systeM resilience*' (<u>ISMED-CLIM</u>), a new Horizon project (Project No. 101156653), which aims to engage and mobilize regional stakeholders across the Mediterranean, in implementing a wide array of adaptation solutions to mitigate the health effects of climate change, and provide evidence for their feasibility, user acceptance and efficacy. ISMED-CLIM, involving 27 actors from 7 countries, started on 1 November 2024 and will run for 4 years. The project proposes solutions and applications to be tested in European countries across the Mediterranean, Cyprus, Greece, Italy, Cyprus, Italy, Spain and Portugal, which are strongly affected by the impacts of climate change.

In the framework of its "Greater Cairo Air Pollution Management and Climate Change Project" (more information here), the World Bank Group projects coordinated by CARE-C have also been used to engage regional collaborators (Greek and Lebanese partners from four (4) different institutions) into regional activities. With a total of three (3) World Bank projects granted through competitive tender process, covering the 4-year period 2023-2027, CARE-C is providing support to the Egyptian Ministry of Environment to upgrade the Greater Cairo Air Quality Monitoring Network with new observations and forecasting tools. (More information, here). These projects include mobility activities which are promoting R&D mobility of CARE-C staff such as 1) staff exchange (visit of Cairo University staff in Cyprus, audit of CARE-C experts in Cairo), 2) Conferences.

V.3. Institutional Collaboration framework promoting mobility.

In order to facilitate regional R&D mobility, CARE-C has been very active in providing institutional framework such as MoUs (Memorandums of Understanding) to promote regional bilateral scientific collaborations. Lessons learned from implementing these MoUs are that it can be a very long process; typically, between 6 to 12 months with governmental bodies in the UAE (we were the first institution from abroad signing a MoU with the Environmental Agency of Abu Dhabi). The vast majority of our regional partners are not experienced establishing such MoU; they often process then as "service provision" (e.g. with non-sharable IP and strong clauses on confidentiality), herewith being not aligned with the spirit of a MoU which is all about cooperation, mutual understanding, and good faith between the parties involved.

Despite these constrains, it was deemed necessary to go through this process to formalize our institutional collaborations and justify further research collaborations, on-site visits, access to facilities for research, joint communications and publications, etc. Overall, and <u>since its establishment (Jan. 2020)</u>, CARE-C has secured an impressive list of collaborations and MoUS as illustrated in the map <u>below</u>. Although not all MoUs have led to important scientific developments, many have allowed to set a necessary institutional collaboration framework which has facilitated the implementation of many research activities, including mobility.







Map of <u>active</u> scientific collaborations established by CARE-C since its establishment (01/01/2020). Collaborations with Israeli universities are currently stopped since the beginning of the war with Hamas (October 2023).

V.4. The regional Climate Change Initiative

Following the very successful International Conference on Climate Change in the Eastern Mediterranean and Middle East (EMME) organized by CARE-C in 2018, The EMME Climate Change Initiative (EMME-CCI, <u>https://emme-cci.org/</u>) was initiated in March 2019 by H.E. the president of the Republic of Cyprus and has matured into an ambitious scheme striving to coordinate a concerted effort by the countries of the region to address the climate crisis. This Initiative has been widely described in several Deliverables of EMME-CARE (e.g. Deliverable 7.6: Report on legal and policy aspects of (inter)national climate initiatives submitted in Aug. 2023).

The new President of the Republic of Cyprus (Nikos Christodoulides) has relaunched this Climate Change initiative during its intervention at COP29 in Baku (November 2024, more information <u>here</u>). The Cyprus Institute is responsible for the Interim Secretariat of this Initiative with state fund supports allocated to promote it regionally. CARE-C will play an important role here in further developing a Scientific Alliance of regional institutions (universities, research centres) to build capacity and exchange knowledge and expertise on Air Pollution and Climate Change. The construction of this Alliance will promote cross-border cooperation and therefore will foster the EMME-CARE R&D Mobility Programme.

V.5. Leveraging EU funding opportunities Sto promote R&D mobility

Beyond the typical Horizon Europe pillars/clusters and ERC/EIC funding schemes, there is a large suite of EU funding mechanism promoting mobility for which CARE-C has actively engaged in order to enhance its R&D Mobility Programme. Among these tools, several are particularly well featured for this purpose. Namely:

Marie Skłodowska-Curie Actions (MSCA): Part of Horizon Europe, the MSCA program funds researchers at all stages of their careers and encourages international, intersectoral, and interdisciplinary mobility. They include Individual Fellowships (IF), Doctoral Networks (DN), Staff Exchanges, and COFUND programs that support researcher mobility across Europe and globally.





More specifically, the objective of Doctoral Networks is to implement doctoral programmes by partnerships of organisations from different sectors across Europe and beyond to train highly skilled doctoral candidates, stimulate their creativity, enhance their innovation capacities and boost their employability in the long-term. Therefore, such EU funded projects appear as a perfect fit for our R&D Mobility Programme while achieving many other educational and research objectives of EMME-CARE as per DoA.

Eramus+: Erasmus+ is the EU's programme to support education, training, youth and sport in Europe. Erasmus+ for Researchers supports academic mobility, including PhD students and early-stage researchers and it facilitates short- and long-term mobility opportunities in universities and research institutions.

COST Actions: A COST Action is an interdisciplinary research network that brings researchers and innovators together to investigate a topic of their choice for 4 years. The main networking tools supported by COST are: 1) Meetings, workshops and conferences, 2) Short-term scientific missions (STSMs), 3) Training schools, 4) Dissemination activities, 5) Conference grants.

We provide a non-exhaustive list of competitive projects which received fundings that have enabled (or still enables) the regional (EMME) and European development of CARE-C activities on Air Pollution & Climate Change activities through mobility (list of MSCA, ERASMUS+, and COST Actions undertaken by CARE-C are reported in Annex 2).

V.6. Promoting Trans-National Access scheme.

Transnational Access (TNA) is an EU-funded mechanism that allows researchers to access research infrastructures (labs, facilities, data centres, etc.) in different countries, promoting cross-border collaboration and knowledge exchange.

Either accessing EU research facilities or offering access to CARE-C labs (through EU funded projects) allows CARE-C scientific and technical staff to enhance international exposure to competitive R&D. It is key to establishing new knowledge and skills within the CoE and promote strategic collaborations and scientific activities.

CARE-C has been very active in participating, as Beneficiary, into several EU H2020 and H.E. projects which have funded TNA access to its ACTRIS National Facilities (CAO and USRL) and offered opportunities to CARE-C staff to access similar facilities across Europe. The projects are: 1) H2020 "ACTRIS-IMP", 2) H2020 "ATMO-ACESS", and more recently 3) "H.E. "IRISCC".

<u>Over 15 TNAs were supported by these Projects over the last 5 years</u> (since the establishment of CARE-C) and attracted in Cyprus a wide variety of international colleagues (France, Finland, Germany, UK, Greece, ...) from both academic and private institutions.

VI. Late submission of D2.5: Added value and Positive impact

The R&D Mobility programme has been shaped to develop as a continuous flow all along the EMME-CARE project and beyond. Therefore, the late reporting of this Deliverable (Feb. 2025 instead of Feb. 2024) is mostly adding more achievements under the different components of this Programme. Namely:

• Recent developments in the EMME-CARE Professorship Programme in the UAE and KSA (see section II.4).

• New staff (Joint PhD, Technical Expert) recruited as part of the Living Lab Programme (e.g. Siqing Xu, R. Baalbaki) (see section III.2).

• New Cyl affiliates (C. Keleshis, C. Constantinides) supporting knowledge transfer (see section IV.2).

Very promising governmental and academic collaborations initiated in the UAE and KSA (see section V.1) which will foster mobility in these countries (visits, trainings, campaigns).



- New regionally funded projects (World Bank contracts engaging Greek/Lebanese/Egyptian institutions) (see section V.2) fostering mobility in Cairo, Egypt.
- New MoUs signed with regional partners (e.g. Ajman Municipality in the UAE) with prospects for joint collaborations (see section V.3)
- Relaunching the EMME-CCI Initiative (November 2024) with important state funds to support the development of a regional Science Alliance on Climate Change (networking activities) (see section V.4).
- MSCA DUST-DN doctoral network coordinated by CARE-C (see section V.5).
- New TNA opportunities for CARE-C with the recently funded H.E. IRISCC project (see section V.6).

VII. Conclusion and prospect

VII.1. R&D Mobility Programme in the EMME

Beyond all the above mentioned obstacles (regional context depicted in section 1.2.1), it has been more difficult than expected to develop regional collaborations for many additional reasons such as 1) the lack of a strong regional network of internationally renowned scientific experts on Air Pollution & Climate (e.g. with the exception of the Cyl, there is no post-graduate studies in the EMME to form students on Air Pollution); 2) the poor scientific collaboration culture within regional universities (the vast majority of them are highly bureaucratic, making difficult to get MoUs with acceptable collaboration terms); 3) Administrative issues such as access to eligible funds to support travel expenses outside Europe and difficulties at borders to perform field observations in the EMME¹); 4) the lack of financial resources in many Eastern Mediterranean countries (e.g. Lebanon, Egypt) to sustain competitive scientific research; 5) the huge difficulty to engage regional collaborators in Open Science (all our collaborations with regional governmental bodies go with strict confidential terms); 6) the general lack of interest and support of regional institutions to establish multilateral scientific collaborations in EMME (most of them have national interests, not beyond).

Nevertheless, and despite these obstacles, we believe that CARE-C is the most advanced Research Performing Organization in the EMME having developed a dense regional scientific collaboration network on Air Pollution and Climate Change (see map in Section V.2); herewith significantly achieving to the long-term vision of EMME-CARE to establish in Cyprus a regional hub of knowledge.

Future prospects: We envision our regional Mobility Programme to continue to develop at the same pace for the next 18 months (until the end of EMME-CARE) and beyond. But <u>it remains highly strategic</u> for CARE-C to better structure and its regional network (the EMME-CCI can potentially provide the tools and resources for that). There are huge (R&D Mobility) benefits to coordinate such network and link it better to those already operating across Europe. Many opportunities have not been explored yet (e.g. ERAMUS MUNDUS funding mechanism for regional Education on Air Pollution & Climate Change).

Following the COP28 in Dubai, we have noticed a momentum in countries such as the UAE and KSA to further develop their Environmental Research (mostly at governmental level), which CARE-C is already benefiting from (e.g. see section V.1). At the same time, these countries are putting major (financial) efforts to develop their regional influence through structures such as the Gulf Cooperation Council (GCC). Strategic decisions will have to be made soon whether CARE-C should further develop its R&I activities in these countries.

¹ Scientific equipment blocked at the Egyptian custom in Cairo for >2 months inducing extra cost of 20k€ of storage fees before clearance; Scientific equipment blocked at the Qatar custom for > 1 month with storage fees >15k€ and no possibility to get it cleared (field campaign aborted and equipment repatriated in Cyprus), ...



VII.2. R&D Mobility Programme in Europe

The strong engagement of CARE-C in many EU funded projects which represent > 90% of soft funds received by the CoE (see Deliverable D1.11 "*Fifth Annual Report on the CoE's Operation*") and the extensive use of EU Mobility schemes (see section V.5) have paved the way to strong R&D mobility of CoE staff across Europe. The very specific EMME-CARE R&D Mobility Programme towards Europe (i.e. Living Lab with Advanced Partners, Affiliation scheme) have also been critical to fostering this Mobility (see sections III, IV).

The implementation of this Mobility Programme in CARE-C has been further facilitated by many factors such as 1) access to grants (see above on the large fraction of EU funding), 2) Regulatory & Legal barriers (e.g. travel for EU citizens), 3) travel policy at the Cyl which allows for sufficient flexibility. In this respect, very few obstacles have been identified in this R&D Mobility Programme in Europe. The main one is related to Regulatory & Legal barriers set by the Cyprus governmental regulation on student VISA for third country (i.e. non-EU) nationals. Cyprus is not in the Schengen area where students can travel across Europe with one single (Schengen) VISA. The student VISA in Cyprus does not allow mobility in Europe (an extra Schengen VISA is required for this purpose). The student VISA in Cyprus is delivered every year (not possible to have it for more). It needs to be renewed ca. 2-3 months BEFORE expiration, and it takes 2-3 months to obtain. Once this is obtained, CARE-C students need to obtain the Schengen VISA to travel in Europe. Therefore, for a period of > 6 months per year, student of CARE-C from third countries cannot travel abroad (e.g. in Europe and beyond). We hope that Cyprus will become soon (2026?) part of Schengen. This would solve this major problem.

Future prospects: We do not foresee major challenges in further implementing our mobility programme in Europe within the next 18 months (end of EMME-CARE). We need to pay a special attention to actively engage (beyond EMME-CARE) our Advanced Partners which are important contributors in this mobility programme. Our engagement in EU Mobility Programmes is good and should be maintained (e.g. with new opportunities such as ERAMUS Mundus, as mentioned above).





Annex I: Joint publications with EMME-CARE Professors

Fadel, M., Courcot, D., Seigneur, M., Kfoury, A., Oikonomou, K., Sciare, J., Ledoux, F. and Afif, C., 2023. Identification and apportionment of local and long-range sources of PM2.5 in two East-Mediterranean sites. Atmospheric Pollution Research, 14(1), p.101622.

Fakhri, N., Fadel, M., Öztürk, F., Keleş, M., Iakovides, M., Pikridas, M., Abdallah, C., Karam, C., Sciare, J., Hayes, P.L. and Afif, C., 2023. Comprehensive chemical characterization of PM2. 5 in the large East Mediterranean-Middle East city of Beirut, Lebanon. Journal of Environmental Sciences, 133, pp.118-137

Fadel, M., Ledoux, F., Seigneur, M., Oikonomou, K., Sciare, J., Courcot, D. and Afif, C., 2022. Chemical profiles of PM2. 5 emitted from various anthropogenic sources of the Eastern Mediterranean: Cooking, wood burning, and diesel generators. Environmental Research, 211, p.113032<u>https://doi.org/10.1016/j.envres.2022.113032</u>.

Fakhri, N., Fadel, M., Pikridas, M., Sciare, J., Hayes, P.L. and Afif, C., 2023. Source apportionment of PM2. 5 using organic/inorganic markers and emission inventory evaluation in the East Mediterranean-Middle East city of Beirut. Environmental Research, 223, p.115446

Christodoulou, A., Stavroulas, I., Vrekoussis, M., Desservettaz, M., Pikridas, M., Bimenyimana, E., Kushta, J., Ivančič, M., Rigler, M., Goloub, P., Oikonomou, K., Sarda-Estève, R., Savvides, C., Afif, C., Mihalopoulos, N., Sauvage, S., and Sciare, J.: Ambient carbonaceous aerosol levels in Cyprus and the role of pollution transport from the Middle East, Atmos. Chem. Phys., 23, 6431–6456, 2023

Christodoulou, A., Bezantakos, S., Bourtsoukidis, E., Stavroulas, I., Pikridas, M., Oikonomou, K., Iakovides, M., Hassan, S.K., Boraiy, M., El-Nazer, M. and Wheida, A., 2024. Submicron aerosol pollution in Greater Cairo (Egypt): A new type of urban haze? Environment international, 186, p.108610.

Farah, E., Fadel, M., Mansour, G., Fakhri, N., Hassan, S.K., Boraiy, M., El-Nazer, M., Wheida, A., Abdelwahab, M., Oikonomou, K. and Sauvage, S., 2024. Unveiling the organic chemical composition and sources of organic carbon in PM2. 5 at an urban site in Greater Cairo (Egypt): A comprehensive analysis of primary and secondary compounds. Environmental Research, p.120118.

Koutroumanou-Kontosi K, Cartalis C, Hadjinicolaou P, Constantinidou K, Agathangelidis I. Modelling the Urban Thermal Environment through the Combined Use of WRF and the Local Climate Zones Approach: Case Study for Nicosia. Environmental Sciences Proceedings. 2023 Aug 25;26(1):53.



PageZ



Annex II: List of ERAMUS+, COST Actions, MSCA Fellowships received by CARE-C

ERAMUS + PhD Student Mobility of EMME-CARE funded staff

Name	Supervisor	Dual / Joint Degree	Semester of	Status	Erasmus Mobility -	Erasmus Mobility -
-	v	v	Enrollment 🔹	•	Destination	Duration 🔹
Aliki Christodoulou	J. Sciare	IMT Lille	Fall 2018	Alumni	IMT Life Douai (CERI Energy	25.02-25.04.2019
					& Environment), France	
Anna Tzyrkalli	Panos Hadjinicolaou		Spring 2023		National and Kapodistrian	01.03-28.03.2024
					University of Athens,	
					Greece	
Constantina Rousogenous	Jean Sciare		Spring 2020		University of Bremen,	12.03-12.04.2024
					Germany	
Giandomenico Vurro	Salvatore Carlucci		Fall 2021		CIEMAT, Spain	05.04-05.07.2024
	Panos Hadjinicolaou					
Neha Deot	Tujia Tokinen	University of Helsinki (Not	Fall 2022		University of Helsinki,	27.02-10.03.2023
		yet finalized)			Finland	
Roubina Papaconstantinou	George Biskos		Fall 2020		Laboratoire des Sciences	26.02-22.03.2024
					Du Climat & De l'	
					Envrironment, France	

Other ERAMUS + Mobility of CARE-C staff

ERASMUS REGISTRY OF MOBILITIES								
Center	Name of Beneficiary	Nationality	Gender	Host Organisation	Country	Year of mobility	Mobility Period	
CAREC	Pierre-Yves Quehe	French	м	National Observatory of Athens	Greece	2022	16.05-18.05.2022	
CAREC	Marina Manoura	Greek	F	The Max Planck Institute for Chemistry	Germany	2022	18.07-20.07.2022	
CAREC	Maria Kezoudi	Cypriot	F	UK	UK	2022	19.09-22.09.2022	
CAREC	Franco Marenco	Italian	М	Technical University of Darmstadt	Germany	2024	03.04-05.04.2024	

MSCA Grants

PROJECT TITLE	ACRONYM	PROGRAMME / ACTION / TYPE	TOTAL BUDGET (Euros)	CYI BUDGET (Euros)	CARE-C Role	PRINCIPAL INVESTIGATOR (and co-PI if any)	Start date	End date
CLOUD Doctoral Network	CLOUD doc	ITN HE MSCA	€2,673,000	€235,080	Partner	Theodoros Christoudias	01/10/2022	30/09/2026
DUST-DN Doctoral Network	DUST-DN	HORIZON-TMA- MSCA-DN	€3,343,198	€861,960	Coordinator	Franco Marenco	01/11/2024	31/10/2028





COST Actions

 ${}_{\text{Page}}21$

Name of COST ACTION	Website	Duration	CARE-C Participants	
SMILES: Enhancing Small-Medium IsLands resilience by securing	https://cost-smiles.eu/	Sep 2022 – Sep 2026	George Zittis (MC member)	
the sustainability of Ecosystem Services				
FutureMed: A TRANSDISCIPLINARY NETWORK TO BRIDGE	https://futuromodoction.ou	Oct 2022 Oct 2027	Coorse Zittie (MC member) Niki Baiai	
CLIMATE SCIENCE AND IMPACTS ON SOCIETY	https://futuremedaction.eu	0012023-0012027	George Zitus (MC Member), Niki Palsi	
MEDUSSE: Seasonal-to-decadal climate predictability in the	https://www.cost.eu/actions/C	Oct 2024 - Oct 2028	George Zittis (MC member) Panos Hadiinicolaou (MC member)	
Mediterranean: process understanding and services	<u>A23108/</u>	0002024 0002020		
FAIRNESS: FAIR NEtwork of micrometeorological measurements	https://www.fairness-	Oct 2021 - Oct 2025	Panos Hadiinicolaou (MC member)	
(COST Action CA20108)	<u>ca20108.eu/</u>	0002021-0002025		
NERO: european Network on Extreme fiRe behaviOr (COST Action	https://poro.potwork.ou/	Oct 2022 Oct 2027	Theodores Christouries (MC member)	
CA22164)	https://nero-network.eu/	0012023-0012027	(includios chilistodulas (includinter)	
MedCyclones: European network for Mediterranean cyclones in	https://modevelopes.ou/	Oct 2020 Oct 2024	Loni Kushta (MC Mambar, WC Loador, Crant Holder Scientific Poprosontativa)	
weather and climate	https://meucyclones.eu/	0012020-0012024	John Rushia (MC Member, WG Leader, Grant Holder Scientific Representative	
InsectAI - Using Image-based AI for Insect Monitoring &				
Conservation	https://insectai.eu/	Oct 2023 - Oct 2027	Kelly Martinou (MC Member), Pantelis Georgiades, Kamil Erguler	
International network for harmonisation of atmospheric aerosol				
retrievals from ground based photometers (COST Action				
CA21119)	https://harmonia-cost.eu/	Oct 2022 - Oct 2026	F. Marenco, J. Sciare (MC Member)	
Chemical On-Line cOmpoSition and Source Apportionment of	https://www.cost.eu/actions/C			
fine aerosoL (COLOSSAL) (COST Action CA16109)	<u>A16109/</u>	OCT 2016 - OCT 2021	J. Sciare (MC Member)	
International Network to Encourage the Use of Monitoring and				
Forecasting Dust Products (inDust) (COST Action CA16202)	https://cost-indust.eu/	Nov. 2017 - Nov. 2021	J. Sciare (MC Member)	
Profiling the atmospheric boundary layer at European scale				
(PROBE) (COST Action CA18235)	https://www.probe-cost.eu/	Oct 2019 - Apr 2024	F. Marenco, J. Sciare (MC Member)	

