EMME-CARE

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D9.6 Third Annual Report contents of the PDER, knowledge and data management, and IPR protection, communication, outreach & public engagement

August 2022

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9.6	Third Annual Report contents of the PDER, knowledge and data management, and IPR protection, communication, outreach & public engagement	1 – CYI	Report	Public	36

Version	Date	Changed page(s)	Cause of change	Partner
V1	15/07/2022	Initial version		CYI
V2	07/08/2022	Edits throughout document	Review	CYI
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1.Introduction

This document refers to Deliverable "**D9.6: Third Annual Report contents of the PDER, knowledge and data management, and IPR protection, communication, outreach & public engagement**", as continuation of the D9.4 and D9.5 related to the First and Second Annual Report respectively and discusses activities that occurred during M25 – M36 (August 2021 – August 2022).

More specifically, this deliverable addresses the above in relation to the contents of the 'PDER – Plan for the Dissemination and Exploitation of Results', which is linked to Task 9.1.c: "Monitoring the different contents of the PDER (led by the Cyprus Institute [CyI])", knowledge and data management, and IPR protection linked to Task 9.2 of the same name (led by CyI), and communication, outreach & public engagement linked to Task 9.3 of the same name (also led by CyI).

1.1 Summary of Deliverables and Milestones

During M25 - M36, the Consortium continued to work for the implementation of activities related to the Tasks9.1, 9.2 and 9.3, and in addition to the completion of this deliverable (D9.6), the EMME-CARE Consortium has achieved Milestone:

- **MS37 Publication of 100 scientific articles by the CoE (led by CyI)** - *The Milestone is associated with activities within the Plan for the Dissemination and Exploitation of the Project's Results (PDER) of Task 9.1, and in particular with the publishing of Scientific articles and publications.*

Further supporting information and links to the CoE's detailed list of publications can be found in section 2.1 of this deliverable.

1.2 Impacts and implications from the COVID-19 pandemic

As already noted in D9.4 and in D9.5, the unfolding COVID-19 situation has had an impact on the format of the Consortium's activities, with a big shift towards primarily online or hybrid events. During the reporting period of this deliverable M25 – M36, when circumstances allowed, face-to-face activities have been restored allowing the participation of the CoE team and the Consortium to a number of workshops/conferences and other activities. Details in in the upcoming sections of this deliverable.

2. Contents of the PDER

This section outlines the Third Annual Report on the contents of EMME-CARE's PDER as these link to the CyI-led **Task 9.1.c: Monitoring the different contents of the PDER**, which includes:

- Scientific articles and publications, conferences and workshops.
- Brochures, leaflets and e-Newsletter.
- Website: consolidation and upgrading from Teaming-Phase-I into CoE, and annual maintenance.
- Dissemination activities related to national and regional clusters, and R&D and student mobility programmes.

In the context of the above, the Third Annual Report also includes mentions of any other relevant activities undertaken during the reporting period (M25 – M36).

2.1 Scientific articles and publications, conferences and workshops.

Scientific Articles and Publications

As already clarified in previous reports, (see in D9.4 and in D9.5) for consistency purposes, the

reporting convention followed by the CoE for scientific articles and publications is being conducted in line with the reporting timelines and requirements set forth by the Cyprus Institute. Accordingly, the CoE gathers information on scientific articles and publications in two intervals each year: January – June, and July – December. More specifically, for the numbers quoted in this section, information quoted for years up to 2021 represent scientific articles and publications for each respective *calendar* year, whilst for the year 2022 scientific articles and publications reported in this deliverable represent the period January – June 2022.

Regarding peer-reviewed scientific publications, as already stated in the Grant Agreement (section 2.2.2) and D9.3 Data Management Plan (Open Data Pilot) the CoE continues to prioritize Open Access in line with Open Science principles.

Publications through the years:

In 2019, the CoE has reported sixty (60) scientific articles and publications, while in 2020 it reported seventy-four (74) scientific articles and publications.

In 2021, the CoE has reported ninety-seven (97) EMME-CARE scientific articles and publications out of which eighty-seven (87) were from CARE-C CoE. When examining this overall (2009 – 2021), **over 60% of publications in 2021 have been published in top-25 cited journals** (according to the Scimago Journal & Country Rank). It should also be noted that all three of EMME-CARE's Advanced Partner PIs were recognized amongst the world´s Highly Cited Researchers in the 2021 list announced by Clarivate / Web of Science.

For reference, a bar chart visualizing this information for 2009 – 2021 is included below.

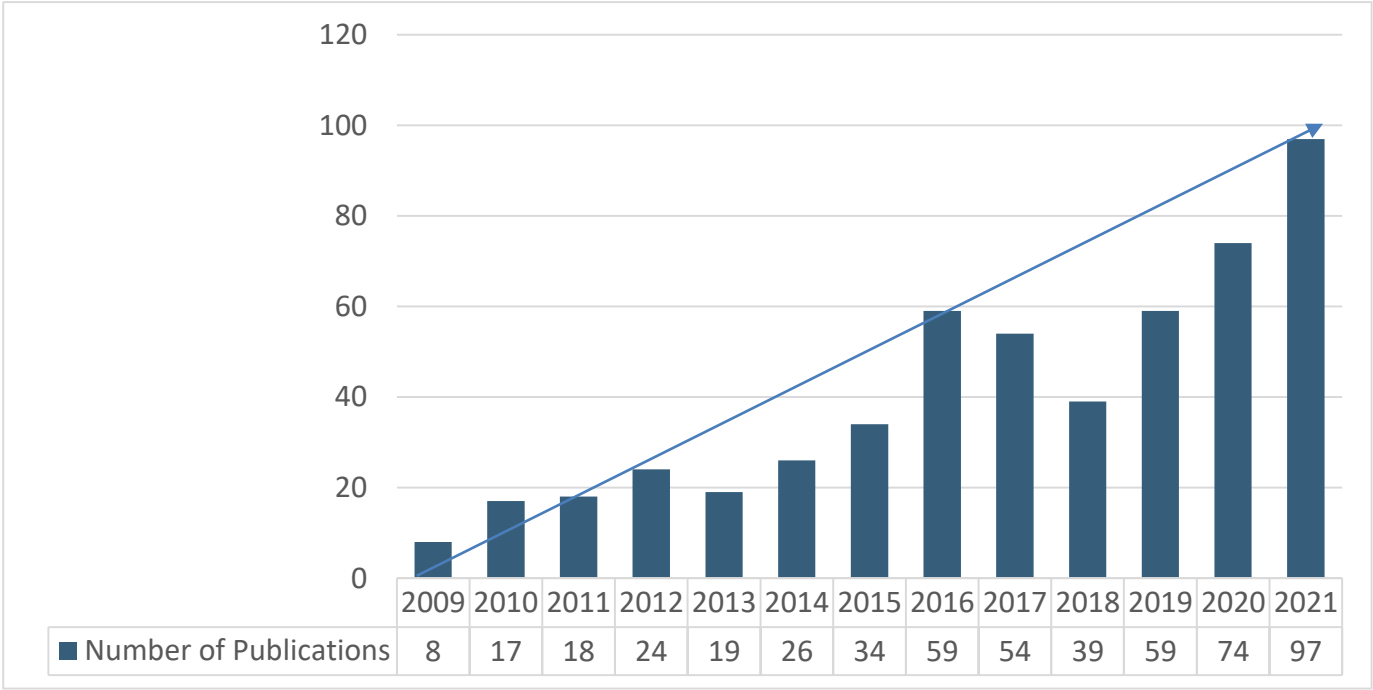


Figure 2.1.1: Publications through the years.

So-far in **2022** (January – June), EMME-CARE counts 42 publications, out of which 38 from CARE-C contributing publications in Journals / Book Chapters and Conference Papers, Proceedings and Reports.

The list of publications for the CoE per full year can be found on the dedicated webpage on the EMME- CARE website (https://emme-care.cyi.ac.cy/publications/). This ensures that the latest information about CoE publications are openly accessible by all interested, and organized by year in

a user-friendly way. The website also allows the user the functionality of searching through publications, hence enhancing their findability.

MS37 Publication of 100 scientific articles by the CoE (due M30 – led by Cyl)
Based on the above reported numbers, the CoE has officially **achieved Milestone MS37** – **Publication of 100 scientific articles by the CoE** (led by Cyl).

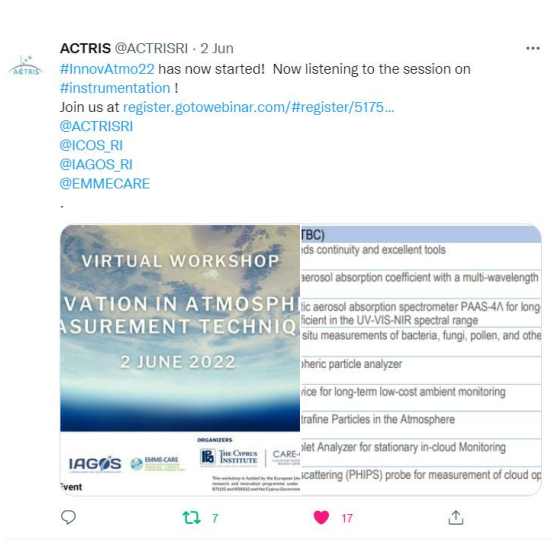
Conferences and Workshops
During the reporting period (M25 – M36) the CoE has presented and participated in **twenty (27)** *scientific* conferences, workshops and trainings, out of which a total of **fourteen (14)** took place in 2022 (January – June), contributing to the dissemination activities of the Center. The detailed list of these can be found in the Annex. The CoE has also successfully organized and hosted workshops and trainings aimed at raising the profile of the CoE and enhancing its visibility, network and reach within scientific and other specialist communities. Some highlights are included below.

Virtual Workshop: Innovation in Atmospheric Measurement Techniques, 2 June 2022

On June 2nd, 2022 EMME-CARE in collaboration with 3 EU RIs ACTRIS, ICOS and IAGOS co-hosted the 2nd Workshop on Innovation in Atmospheric Measurement Techniques, as a Partner Event of the EU 2022 Green Week. The event was organized by the Climate and Atmosphere Research Center (CARE-C) of the Cyprus Institute with the support of the University of Helsinki, the Max Planck Institute for Chemistry in Mainz (MPIC), the French Alternative Energies and Atomic Energy Commission (CEA).

Through a full day of sessions and talks, this workshop brought together atmospheric science communities to discuss the latest innovations in atmospheric measurement techniques. Participants had the opportunity to discuss and find out about new technologies, products, services, and instrumentation and access visibility of opportunities for R&D collaborations. The Workshop gathered over 300 participants from 30 countries, and created a unique platform for networking and knowledge-exchange between key contacts from academia, private companies, the public sector and NGOs.

Figure 2.1.2: Slide of Innovation Workshop in Atmospheric Measurement Techniques.



Figures 2.1.3 & 2.1.4: Screenshots of tweets from participants of Innovation Workshop in Atmospheric Measurement Techniques

CARE-C presents at 1st MENA Climate Week Side Event, 30 March 2022

CARE-C further strengthened its commitment and contributions to shaping regional climate action by participating in UNFCCC's 1st Middle East and North Africa (MENA) Climate Week that was held in Dubai March 28 – 31, 2022. Hosted by the government of the United Arab Emirates, the event was organized in collaboration with UN Climate Change, UN Development Programme, UN Environment Programme and the World Bank Group.

The CoE's delegation actively participated in the Conference's sessions and meetings in Dubai, and presented a side event on the 30th of March, which was attended by participants in-person and online. The side-event titled "Coordinating Climate Action in the Eastern Mediterranean and Middle East: Initiatives in Research & Innovation and Policy", presented new initiatives within these remits, which aim to accelerate climate actions in the EMME, for the benefit of the MENA and expected impacts globally. Initiatives discussed covered the subjects of High-resolution regional climate projections and weather extremes; Innovative technologies for Greenhouse Gas emissions monitoring, verification and reporting; New tools to monitor and better predict severe air pollution events and dust storms: and the scientific findings and political accords of the Eastern Mediterranean and Middle East Climate Change Initiative (EMME-CCI), a regional Initiative launched in 2019 by the council of Ministers of the Republic of Cyprus.

Presentations were made by Prof Jos Lelieveld · Director, Max Planck Institute for Chemistry in Mainz Institute Professor, The Cyprus Institute; Prof Philippe Ciais · Research Director, Laboratoire des Sciences du Climat et de l'Environnement (LSCE) and Institute Professor, The Cyprus Institute; Prof Jean Sciare · Director, Climate and Atmosphere Research Center (CARE-C), The Cyprus Institute; and Prof Thanasis Hadzilacos · Adjunct Professor, The Cyprus Institute.

Side-event participants were able to find out more about the new ambitious initiatives and solutions developed and discuss opportunities for cooperation to further enhance and accelerate collaboration with regional actors.

Figure 2.1.5: Banner of CARE-C session at MENA Climate Week

1st Annual Workshop: Climate and Atmosphere Research & Innovation in the Eastern Mediterranean & Middle East (EMME), 11 & 12 October 2021

On 11 & 12 October, 2021 EMME-CARE hosted the 1st "Climate and Atmosphere Research & Innovation in the Eastern Mediterranean & Middle East (EMME)" Online Workshop. Through two full days of sessions, talks, and activities the workshop brought together EMME regional and international scientific communities to discuss the latest concerning the science of climate change and air pollution, as well as related challenges, impacts and potential solutions for the EMME region. The Workshop's welcoming address was given by Prof Jean Sciare, Director of CARE-C and Coordinator of EMME-CARE. The event included an exciting program, reporting the latest concerning the science of climate change and air pollution in the form of 7 invited talks and a selection of 38 oral and 21 virtual PICO presentations on recent relevant advances in the field. Presenters came from universities, research institutions and private companies from across the EMME and beyond. The Workshop brought together over 250 participants from 36 countries, including 12 countries of the EMME region, and created a unique platform for networking and knowledge-exchange between key contacts from academia, private companies, the public sector and NGOs.

The workshop was organized by EMME-CARE, within the framework of the 2nd International Conference "Climate Change in the Eastern Mediterranean & Middle East".

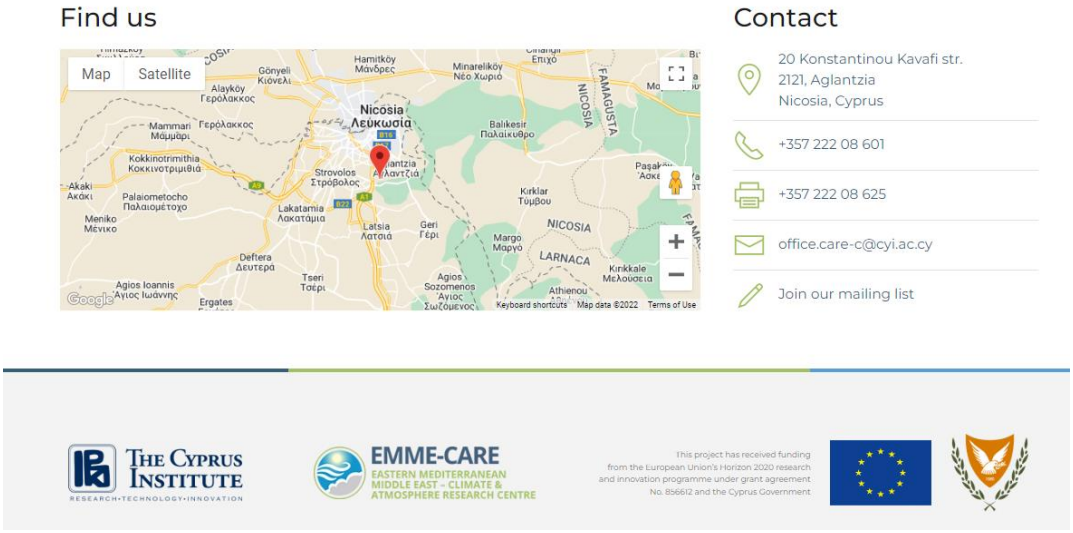
Figure 2.1.6: Banner of EMME R&I Workshop.

2.2 Brochures, leaflets and e-Newsletter.

As already reported in D9.4 and D9.5, the CoE has already produced a variety of print and video material. Leaflets, brochures and videos of the CoE are accessible at all times in digital format through the CoE website (https://emme-care.cyi.ac.cy/news/ - Brochures & Reports, Gallery).

e-Newsletter

As already reported in D9.4 and D9.5, the EMME-CARE newsletter is prepared and circulated to the EMME-CARE mailing list, and includes articles, news items and updates from the CoE and its Advanced Partners. All issues of the e-newsletter are accessible at any time through the CoE website at https://emme- care.cyi.ac.cy/news/#nl. A mailing list sign-up form has also been added to the landing page of the EMME-CARE site to further encourage sign up.



Figures 2.2.1.: Screenshot of the EMME-CARE newsletter sign up link on the website landing page

2.3 Website

Further to the upgrades and developments mentioned in D9.4 and D9.5, the dedicated website (https://emme-care.cyi.ac.cy/) of the CoE, continues to be updated regularly in technical and content aspect, allowing to increase the impact to the general public as well as to promote its objectives and work to the scientific community and researchers on the field.

This section outlines:

a) Website Performance Metrics

b) Annual maintenance upgrades (M25– 36)

a) ***Performance metrics of the CoE website***

As already outlined in D9.4 and in D9.5, the CoE tracks website traffic and related visitor metrics for its site, that are analysed to optimize the CoE's approach to marketing, user experience and server performance. Indicatively, during the M25-M36, the analysis shows that the site has been visited by

1858 new users, allowing the CoE to determine the visits to the website that can be compared with CoE promotional activities, contributing to measuring and assessing their impact, and adjusting them in real time for maximum effect.

In line with GDPR the functionality of this tool is covered in the Privacy Policy and Cookie Policy readily available and easily accessible at all times through the footer of the EMME-CARE site.

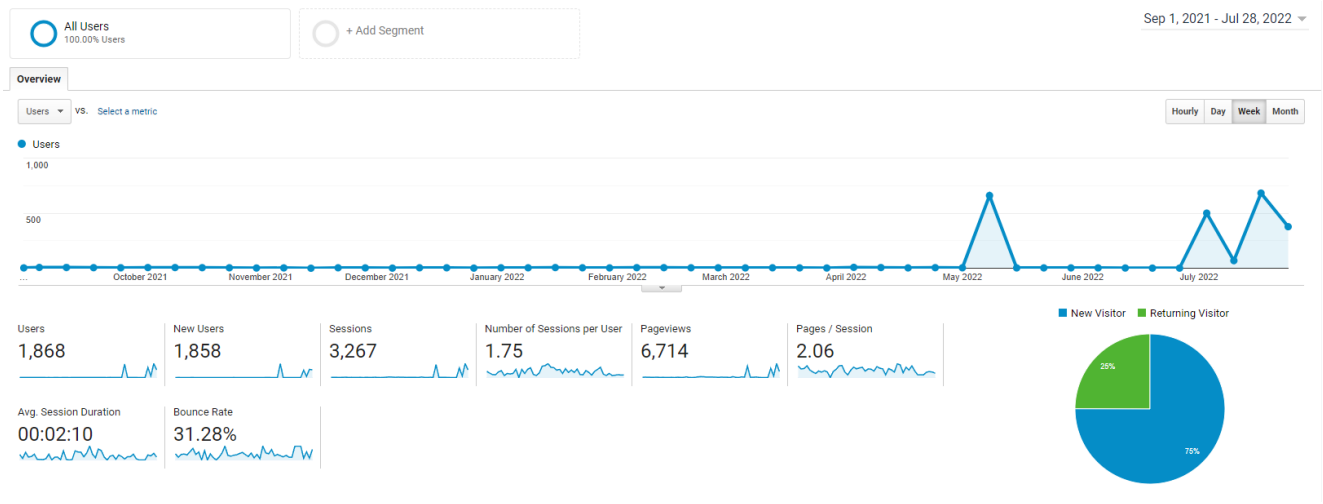


Figure 2.3.1: Screenshot of CoE website traffic metrics dashboard

b) *Annual maintenance upgrades (M25 – M36)*

During M25 - M36, the website has been undergone an update on the “Opportunities” section which has been redesigned in order to accommodate the deployment of a new HR platform (also mentioned in section 4.4).

Figure 2.3.2: Screenshot of CoE website-HR

2.4 Other dissemination activities related to national and regional clusters, and R&D and student mobility programmes.

During the reporting period for this deliverable (M25 – M36), the CoE has further strengthened and expanded its growing network of national, regional and international clusters with a variety of stakeholders from academia, the public and private sectors as well as NGOs and International Organizations, as these were first established and reported in D9.4 (for M1-M12) as well as in D9.5 (for M13-M24). Relevant updates below.

Updates on EMME-CARE National Clusters

Beyond what has already been reported in D9.4 and D9.5, during the reporting period, the CoE has expanded its network of national eco-innovation clusters through innovation activities as these were reported in submitted deliverable D8.1. It has also expanded its support of Cyprus Government Departments, including through an agreement with the Department of Forests within the framework of the implementation of Investment 9, and more specifically the Investment Action C2. 1I9: Protection of forests from wildfires, of the Resilience and Recovery Plan, for the provision of Unmanned Aerial Vehicle (UAV) services for the period 2022-2025, through CARE-C's Unmanned Systems Research Laboratory (USRL).

Updates on Regional and International Clusters

EMME-CARE Regional Professorship Programme

As mentioned in D9.5, EMME-CARE's Regional Professorship Programme aims to strengthen, expand and enhance collaboration networks in the EMME region to tackle air pollution and climate change and their impacts, through the establishment of collaborations with top Universities in the countries of the EMME region. Further, during the referenced period, the CoE has been strengthening its collaboration with:

1) the Israeli Meteorological Service (IMS) (through MoU) for High Resolution regional climate change projections (collaboration initiated in the framework of the Climate Change Initiative.

2) the Qatar Energy Environment Research Institute (QEERI) (through Scientific Collaboration Agreement) with collaborative work on air pollution (emissions, measurements, models) planned early 2022 in Doha (Qatar), and

3) Cairo University (CU) (through MoU) for the establishment of educational programs (under/post-graduate curriculum on Air Pollution) in collaboration with the World Bank.

Please see submitted deliverable D1.8 (section 3.2.2) for more details.

Other International Networks

In addition to networks already reported in D9.4 and D9.5, during the reporting period the CoE added CERN to its network, with participation in CLOUD experiment, that was published in Nature with co-authorship from CARE-C Faculty (Wang, M. et al., 2022). The CoE has also more actively engaged with European Research Infrastructures ICOS and IAGOs, within the framework of organization of the 2nd Innovation Workshop on Innovation in Atmospheric Measurement Techniques. Other networks, in which the CoE remains engaged are featured below.

Figure 2.4.1.: Creating a bridge between top R&I network and the EMME Region

Student Mobility Programmes

As already mentioned in D9.4 and D9.5, and outlined in section 1.1.4.2 of the Grant Agreement, and in accordance with the scope and objectives of WP3 Education and Training, with the support of its Advanced Partners, the CoE aims to become a regional hub for student exchanges between EU and the EMME region, as well as promote wider international exchanges. During M25-M36, the CoE is working continuously to build on establishing new networks and collaborations as well as to promote international mobility.

Particularly International Dual Degree PhD (Cotutelle) currently with 3 PhD students engaged in Joint Degrees with University of Paris-Saclay and University of Helsinki. Also, training opportunities: leveraging existing networks, such as COST actions and ERASMUS+ (supported by the CyI Graduate School). Relevant examples for the period August 2021 to June 2022 include the staff mobility visit of Pierre-Yves Quehe to the National Observatory of Athens between 16-18 June 2022. The objective of the training was to familiarize and get trained on mobile platform operations for monitoring atmospheric pollutants and greenhouse gases. The added value of this mobility is to extend the geographic monitoring capabilities of CARE-C and to assess the need for long-term monitoring in specific locations in Cyprus and beyond.

Stakeholder Mapping

As reported in D9.5, the Consortium has created a template format that has allowed it to review and categorize its relations with all actors (beyond the Consortium) that are *directly* engaged with the CoE and the EMME-CARE project. This functions as a “live record” regularly reviewed and updated by the Consortium in line with relevant EMME-CARE reporting periods. As such, it also serves as a tool for ensuring relevance and efficiency of audience segmentation and planning of DEC efforts.

For mapping purposes, stakeholders were organized in the following categories:

- **Consortium Partner**, partners in funded project
- **Partner**, have signed an MoU
- **Collaborator**, purpose-driven collaboration / collaboration agreement
- **Regional Professorship Program**, part of the EMME-CARE RPP
- **Service users**, recipients of CoE services or products
- **Other**, any other type of relationship for stakeholders directly engaged with EMME-CARE

At the time of writing of this deliverable, EMME-CARE's directly engages with stakeholders from **137 organizations** (20 more than August 2021), across **33 countries**, from academia, international organizations, public sector & government, third sector / NGOs as well as private companies. An updated breakdown per type of organization is included below.

Type of Organization	**Number per Organization type**	**Percentage per Organization type**
Academic	64	46.72%
Public	40	29.20%
Private	22	16.06%
NGO	8	5.84%
International Organizations	3	2.19%

The above information is guiding the dissemination, and exploitation activities of the Consortium in planning its activities for the next reporting period, while it will also act as a helpful basis in further developing its exploitation plan within the context of WP8 activities.

3. Knowledge and Data Management and IPR Protection

This section outlines relevant updates relating to **Task 9.2 Knowledge and Data Management, and IPR Protection**, led by the Cyprus Institute**.**

3.1 Data Management Plan and FAIR Strategy

D9.3: Data Management Plan (Open Data Pilot)

D9.3: Data Management Plan (Open Data Pilot), is describing the overall approach for producing, collecting and processing research data for EMME-CARE and the Research Departments and Infrastructure Units that have been consolidated in the context of the CoE, including the CoE's FAIR Strategy. The DMP submitted in March 2021 is considered to be up to date. During the reporting period, the following improvements and additions have been made at the technical aspect of Data Management:

- Custom Matlab scripts have developed to produce complex colormaps that are displayed in EMME CARE websites
- Four additional instruments have been imported into the database
- CAO server has been moved in dedicated chassis in order to improve performance
- VPN network has expanded
- "Worker" instances have been created that handle data monitoring and uploading. By implementing this worker – microservice architecture, we can provide near - real time (60-90 minutes after data capture) data access, while we can expand our infrastructure's capacity and computational power by simply adding more hosts as soon as it becomes necessary
- Additional servers have been procured in order to expand the Center's capacity and provide cold storage and data duplication [under procurement] and to assist scientists in their efforts to monitor and manage the quality of the gathered data.
- A Grafana installation has been internally deployed for monitoring raw data and instrument status/performance
- Several VMs have been deployed in order to assist scientists handle the data curation process
- Two live web cams feeds have been activated in two CAO stations in order to visually monitor weather conditions

3.2 Formulation and revision of IPR strategy, specifically in the context of exploitation activities (incl. commercialization, spin-off creation etc.)

As already reported in D9.4 and D9.5, the CyI Consortium and its Advanced Partners have drawn up a comprehensive Consortium agreement, which has determined the rights and obligations of the parties related to background and results and the management of intellectual property (GA – section 3). This has determined all arrangements relating to: confidentiality, background or pre-existing IP brought into the Consortium, foreground IP, especially relating to ownership and/or joint ownership of the project's results, side ground IP, relating to intellectual outcomes generated parallel to the activities of the project, legal protection of results, settlement of disputes, and commercial exploitation of results and relevant access rights.

As recommended in the framework of the EMME-CARE RP2 Review process, in addition to what has been foreseen in the Consortium Agreement, this section provides an update on the project's IPR strategy, the principles to be applied and the rules to be followed.

In the framework of the CoE's innovation and research & development activities, a number of protection measures are examined to support exploitation, including patents, copyright, design rights, database rights and rights in the nature of copyright, know how, rights in proprietary and confidential information and any other rights in inventions. Strategic intelligence specifically regarding patents is gathered to determine freedom to operate and any potential barriers to commercial exploitation, to find relevant research and/or other commercialization partners, and to identify licence-in opportunities, as they relate to the expected CoE products and/or services.

This process is managed through the CoE's RISO Unit (as per its scope outlined in submitted deliverable D8.1) and with the support of CyI's Innovation & Entrepreneurship Office. As appropriate to each case, the CoE will also seek expert advice to help determine whether, and how best to protect project results, such as from the European IP Helpdesk, and taking advantage of the resources available through the Innovation and Knowledge Transfer Offices of the Consortium Partners. This also links to that the CoE acknowledges that that registration and commercial exploitation of IP is often a long and costly process, so aims to base such a decision on a solid business case, to ensure exploitation in a viable manner, that will contribute to the sustainability of the CoE.

Specific conditions in regards to IP that govern the ownership rights emanating from research of and/or materials produced by the Cyprus Institute's employees and postgraduate students, that apply to the CoE, are also outlined within the framework of the CyI's Intellectual Property Policy .

When it comes to new projects or related activities involving the CoE and partners beyond those involved in the EMME-CARE Consortium (including SMEs), the CoE's approach to managing IPR, knowledge transfer and exploitation builds on the principles and guidelines described in the European Commission Recommendations on the management of IP in knowledge transfer activities and Code of Practice for universities and other public research organisations, and also considers the policies of the private entities and the stakeholders that are part of each respective consortium. Further, consortium beneficiaries are required to indicate the owner(s) of the results, in the form of a results ownership list, at project end.

4.Communication, Outreach & Public Engagement

This section outlines the Third Annual report on EMME-CARE Communication, Outreach &

Public Engagement as these link to **Task 9.3 Communication, Outreach and Public Engagement**, led by the Cyprus Institute. More specifically, this includes:

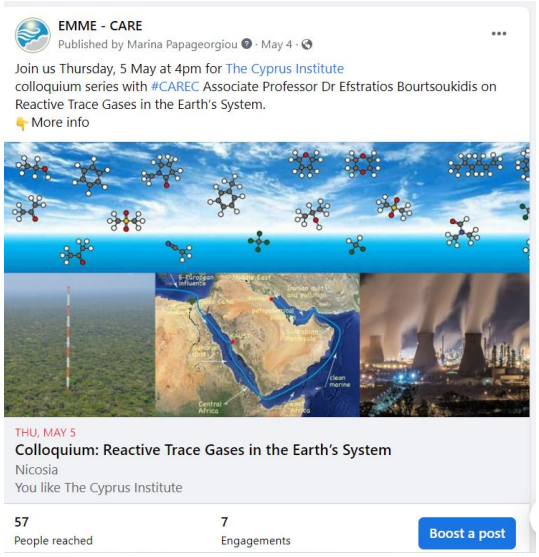
- Creation and updating of the CoE's social media profile and public forum.
- Creation and updating of giveaways, memorabilia and distribution of promotional material.
- Organisation of climate change conference series (see section 4.3) every two to three years.
- Creation and update of web and mobile app, with real-time weather and air quality monitoring.
- Implementation of boost projects
- Establishment and continued function of permanent and interim exhibition halls

In the context of the above, the Third Annual Report also includes a variety of other communication, outreach and public engagement activities including press releases and features.

4.1 Creation and updating of social media profiles and public forum

As already reported in D9.4 and in D9.5, CoE social media accounts were created from the first months of the project and continue to be active, aiming to speak to various stakeholders across Facebook, Twitter, LinkedIn and Research Gate.

The CoE's efforts have culminated in a steady expansion of its online community, with 1,686 followers for CoE social media platforms which the CoE aims to continue to grow. Indicatively, at the time of writing (August 2022) the EMME-CARE twitter account has attracted 105 new followers during the period reported in this deliverable, bringing the total follower count to 650 followers. Similarly, the CoE's Facebook Page has gathered a sizeable support of 711 followers, an 11,6% increase since August 2021.



Figures 4.1.1 & 4.1.2: Screenshots of CoE social media posts on Facebook (left: Colloquium: Reactive Trace Gases in the Earth's System, 5/5/2022) and Twitter (right: Virtual workshop on Innovation in Atmospheric Measurement Techniques, 2/6/2022)

4.2 Giveaways, memorabilia and distribution of promotional material

The CoE continues to make good use of the promotional material created (see D9.4) to continue to develop the impact and visibility of the CoE, including through the creation of "briefing packs" to delegations of formal visits to the CoE as well as distribution in formal meetings with external contacts, and in the context of other events hosted by the CoE as appropriate.

4.3 Organisation of Climate Conference series

Hybrid Conference: 2nd international Conference "Climate Change in the Eastern Mediterranean & Middle East", 13 & 14 October 2021. *(Part of the climate change conference series)*

Hosted in Cyprus and online with the participation of more than 150 participants in Cyprus and c. 600 online. The Conference was co-organized by EMME-CARE along with the Cyprus Institute, the Eastern Mediterranean and Middle East Climate Change Initiative of the Cyprus Government, and the European Commission Representation in Cyprus.

The event, was held both with physical presence and online and was attended by leading environmental scientists, as well as officials from Cyprus, Greece, EU and Middle East countries. During the conference, prominent policymakers and scientists from all over the world reviewed the manifestations of the climate crisis in the EMME region, and discussed the priorities and the main elements of a Strategic Plan for Climate Change mitigation and adaptation.

Figure 4.3.1: International conference banner

4.4 Outreach and Public Engagement Events

Over the period reported in this deliverable, the CoE has organized, actively participated and attended a number of outreach and public engagement events to enhance its visibility and impact.

These contributed to the growth of the public forum created with the EMME-CARE stakeholder community and the wider public at large, primarily through interaction in digital events (due to the pandemic) and in conversations taking place on social media platforms during, and following said events. When circumstances allowed, representatives of the CoE participated also in face to face events and activities enhancing the promotion of the Center in physical presence as well.

More information and selected highlights from outreach and public engagement events the CoE has organized or participated during the reporting period of this deliverable, are outlined below. The latest

information about upcoming CoE events as well as previous participation/organization of events, can be found on the dedicated webpage of the website (https://emme-care.cyi.ac.cy/news/#ue) .

BioBlitz Akrotiri, 20 – 22 May 2022

On 20-22 May, CARE-C researchers working on detecting invasive alien species in the protected wetland of Akrotiri Cyprus, participated along with citizens, at the Cyprus BioBlitz which was held at the Akrotiri Environmental Education Center. The event took place simultaneously in 12 other European countries, in the framework of the COST Action Alien-CSI (Increasing understanding of alien species through citizen science) European BioBlitz.

Figure 4.4.1: Poster of the BioBlitz event

Colloquium: Reactive Trace Gases in the Earth's System, 5 May 2022

On Thursday, 5th of May 2022, at CyI premises – face to face and online the Colloquium: Reactive Trace Gases in the Earth's System, took place the colloquium which focused on Volatile Organic Compounds(VOC) and their importance in atmospheric chemistry, their utility in emission source and chemical sink identification. Dr. Efstratios Bourtsoukidis, Assistant Professor at CARE-C, and main speaker of the Colloquium, explained how the combination of naturally occurring VOCs and the anthropogenic activities can have a negative impact on air quality, human health and climate. He further explained, how this combination reflects overall on Earth's System and specifically over the EMME region, which is the most affected. Evaluating the models of the VOC emission and atmospheric chemistry, will help to predict atmospheric and environmental implications related on climate change. The Colloquium ended with an open discussion by the audience.

Figure 4.4.2: Photo from the Colloquium: Reactive Trace Gases in the Earth's System, 5 May 2022

CARE-C Participation at sCYence Fair 2022 – April 2022

Three teams of CARE-C researchers, representing different activities of the Center, including the showcase of Unmanned Research System technologies, took part in Cyl's sCYence Fair which was held on 15 – 16 April 2022, in Skali Aglatzias in Nicosia. The event took place under the auspices of the Minister of Education Culture, Youth and Sports and the Chief Scientist for Research and Innovation of the Republic, and attracted participation from 60 student teams comprised of students at all levels from 50 schools across the private and public sector in Cyprus, including 3 schools from abroad (Italy, Greece and the Czech Republic) attending virtually.

Colloquium: Policy Implications of a Global Assessment of Oil and Gas Methane Ultra-Emitters - 10 March 2022

Professor Philippe Ciais, Institute Professor, The Cyprus Institute, & Research Director, Laboratoire des Sciences du Climat et de l'Environnement and EMME-CARE Advanced Partner PI, provided a talk as part of the Cyl's Colloquim series on Oil & Gas Methane Ultra-Emitters. Methane emissions from oil and gas (O&G) production and transmission represent a significant contribution to climate change. These emissions comprise sporadic releases of large amounts of methane during maintenance operations or equipment failures not accounted for in current inventory estimates. Prof Ciais' team collected and analyzed hundreds of very large releases from atmospheric methane images sampled by the TROPOspheric Monitoring Instrument (TROPOMI) over 2019 and 2020 to quantify emissions from O&G ultra-emitters.

"Young Journalists for the Environment" with Aglantzia High School, December 2021 – March 2022

In December 2021, CARE-C researchers were interviewed by a group of 18 Aglantzia High School students taking part in the "Young Journalists for the Environment" Program. The students were interested in climate change and how it relates to forest fires, as well as the technologies being developed by the Center relating to fire prevention, detection and monitoring, as they focus their efforts in protecting their local environment. As a follow-up to this effort, in early 2022, the students visited the CARE-C premises, including a tour of the Unmanned Systems Research Laboratory (USRL) and a meeting with Dr George Zittis to learn about climate projections.

Webinar: 3D Printing – a New Route to Scientific Aerosol Instruments: From Fast Prototyping to Instruments for Routine Measurements, 22 February 2022

CARE-C Associate Research Scientist, Dr Anne Maisser provided an overview of how 3D printing has proven itself to be an asset for the development of scientific instruments. 3D printing enables fast prototyping and cost-efficient manufacturing of otherwise very expensive instruments. In the field of air quality and aerosol measurements this carries great potential towards more readily available instrumentation and thus wider application and a tighter global network of monitoring devices. Data from such measurements could be crucial in improving air quality in heavily polluted areas but also for fighting climate change. Anne Maisser presented recent developments and results from her work at the Cyprus Institute on applying 3D printing for building instruments capable of measuring size distributions of airborne nanoparticles. The webinar took place within the framework of the MAGNUM project which has received funding from the Research & Innovation Foundation (RIF), Republic of Cyprus.

4.5 CoE Website Upgrade and scoping of web and mobile-app creation

As outlined in the Grant Agreement (2.2.3) and further elaborated in D9.2, D9.4 and D9.5 the CoE will develop an application, as part of its communication, outreach and public engagement efforts that will include the display of real-time weather and air quality monitoring data and forecasting products for Cyprus and the EMME region. As mentioned in D9.5, steps have been taken to enable real-time data monitoring display – including visualizations of instrument measurements and a relevant “Data” section has been created in the EMME-CARE website with the associated high-level menu item, to be populated with real-time data monitoring visualizations from the CoE as a pre-cursor to the full-blown application. In this regard, during the reporting period M25-M36, the two live web cams in CyI and in Agia Marina, became active and visible in the “Data” section of the website as planned.

Additionally, the “Newsletter” subscription form has been adapted to the new workflow of the provider (mailchimp). Also, the “Opportunities” section has been renamed to “Opportunities & Training” by adding a new tap named “Training”, where visitors can find information and register to upcoming sort-term trainings held at The Cyprus Institute. Also, this section has been redesigned in order to accommodate the deployment of a new HR platform.

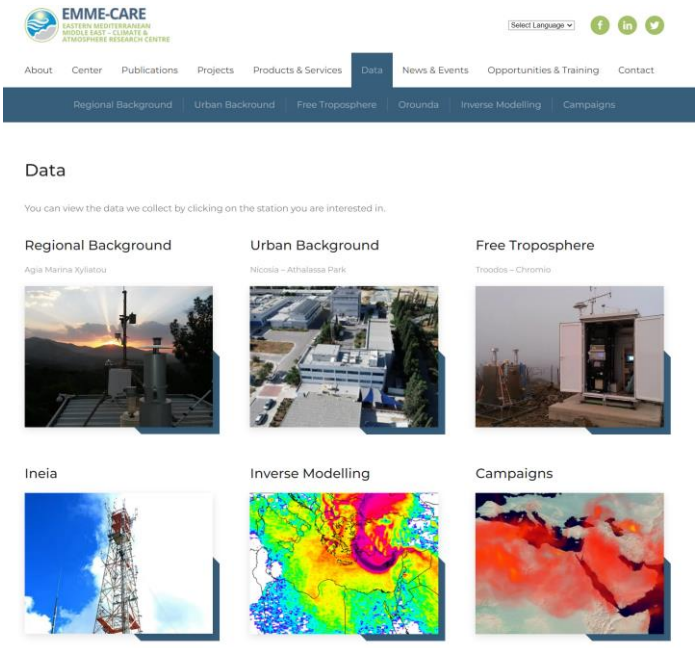


Figure 4.5.1: “Data” section

Figure 4.5.2: "Opportunities & Training" section-new HR platform

4.6 Implementation of boost project on science training for journalists (Boost Change).

As already mentioned in D9.4 and D9.5, there was a necessity to shift the timeline and activities of the boost project, by the redirection of funds within the Government budgeted funds, for the project supporting operational needs of the CoE and by the decrease in the central CyI Budget for 2021.

According to the initial plan, the "Boost Change" project (subcontracted to "Science Partner" in France) was to enable the emergence of an advanced, well-informed and demanding public opinion in the EMME on matters of climate change, its impacts and mitigation. The recently funded HE "Edu4ClimAte" project (2022-2026, 2M€, Coord. Univ. of Crete with the support of the CyI-CARE-C) will allow engaging in more ambitious objectives than initially planned and as such, this "Boost Change" project (to be funded initially under the EMME-CARE Cyprus Government complementary funding) is no longer considered and will induce a substantial saving of funds to be re-allocated in the operation of CARE-C facilities.

4.7 Establishment and continued function of permanent exhibition halls

As outlined in the Grant Agreement (2.2.3.), the CoE will be creating a permanent exhibition area in the new building of the CoE Headquarters in Nicosia (Athalassa). The exhibition will display the latest innovation, products and services of the CoE, including lively multi-media content illustrating its scientific excellence, as well as accessible education and promotional material for school visits and the wider public. As per Milestone MS36 EMME-CARE exhibition halls opened (led by CyI), the CoE will be creating a permanent exhibition area in its new building. Due to unforeseen circumstances and obstacles the new building planned to house the CARE-C Headquarters in Nicosia is not projected to be ready by M24 (expected by M54). Meanwhile, and to keep as much as practically feasible in line with its commitments, the CoE proceeded with the operation for an interim exhibition area in 2021, appropriately situated in its current premises and specifically, at the Ground Floor of the Novel Technologies Building (NTL) in its Athalassa Campus. Further details on this have already been

reported in RP2 Periodic Report.

4.8 CoE Press Coverage

As part of its communication, outreach and public engagement activities, the CoE plans for targeted, and timely press releases, features in articles and news items as well as public appearances leading to coverage by the traditional print and broadcast media (incl. articles in newspapers and magazines, and features on radio or TV) to maximize its visibility and impact.

During the reporting period of this deliverable, EMME-CARE has had **over three hundred (300) press mentions,** including interviews and dedicated features**,** in various digital and print outlets in at least **six (6) different languages.**

Indicatively, below are highlights from the press coverage the CoE has received during the reporting period of this deliverable. A constantly updated comprehensive list of the press mentions of the CoE can be found on the News & Events page of its website (https://emme-care.cyi.ac.cy/news/).

Press Highlights

- 8 August 2022 - CARE-C Supports the Department of Forests with the Provision of Drone Services to Strengthen Forest Fire Management


Drones στη διάθεση του Τμήματος Δασών για διαχείριση δασικών πυρκαγιών
08.08.2022 13:48 Κύπρος
SigmaLive

Figure 4.8.1: Sigmalive

- 5 July 2022 - CARE-C Participates in European Space Agency's Campaign in Cape Verde for Calibration / Validation of The Aeolus Satellite


Insider
ΑΠΟΚΛΕΙΣΤΙΚΗ ΣΥΝΕΡΓΑΣΙΑ
Το CARE-C του Ινστιτούτου Κύπρου στο Πράσινο Ακρωτήρι για την βαθμονόμηση του δορυφόρου Aeolus
ΑΡΧΙΚΗ • INSIDER • ΕΠΙΧΕΙΡΗΣΕΙΣ • Το CARE-C του Ινστιτούτου Κύπρου στο Πράσινο Ακρωτήρι για την...

Figure 4.8.2: NewsfeedCy

- May 2022 - EU Commissioner for Innovation, Research, Culture, Education and Youth, Ms. Mariya Gabriel, and the Permanent Secretary of the Deputy Ministry of Research, Innovation and Digital Policy, Dr. Stelios Himonas, Visit the CARE-C Center of Excellence and CyI

Figure 4.8.4: Alpha Tv

- April 2022 - Prevailing Dust Over Cyprus – A Major Dust Event Hit Cyprus on April 3rd

Figure 4.8.5: Philenews

- 5 February 2022 - Akkuyu Nuclear Power Plant, Dangers, and Air Quality in Cyprus – Interview with CARE-C, Assoc. Prof. Theodoros Christoudias

Figure 4.8.6: PIK TV

- 28 January 2022 - Climate Change in Iraq – Interview with CARE-C's Dr George Zittis

Figure 4.8.7: Aljazeera

- 2 November 2021 - Climate Change in Cyprus and the EMME region – interview with CARE-C's Prof Hadjinicolaou

Assoc. Prof. Panos Hadjinicolaou - Climate Change - OMEGA TV 03-11-2021

Figure 4.8.8: OMEGA TV

- 13-14 October 2021 - 2nd International Conference: Climate Change in the Mediterranean and the Middle East: Challenges and Solutions

Figure 4.8.9: Cyprus Mail newspaper and Politis newspaper

- 22 August 2021 - Climate crisis; there is no time to waste

Figure 4.8.10: Dialogos.com

Press Coverage Documentation

A list of the CoE's press coverage is publicly accessible at any time on the CoE's website (https://emme-care.cyi.ac.cy/news/ - In the Press).

5. Contribution of EMME-CARE Advanced Partners to PDER, Communication, Outreach & Public Engagement Activities

To support the contribution of EMME-CARE Advanced Partners to PDER, Communication, Outreach & Public Engagement Activities, the CoE coordinated the definition and appointment of communication contact points for each of its Advanced Partners.

The CoE is ensuring the continuous, regular and close collaboration with Advanced Partners in matters of communication, through organizing regular catch-up, planning and coordination meetings with contact points.

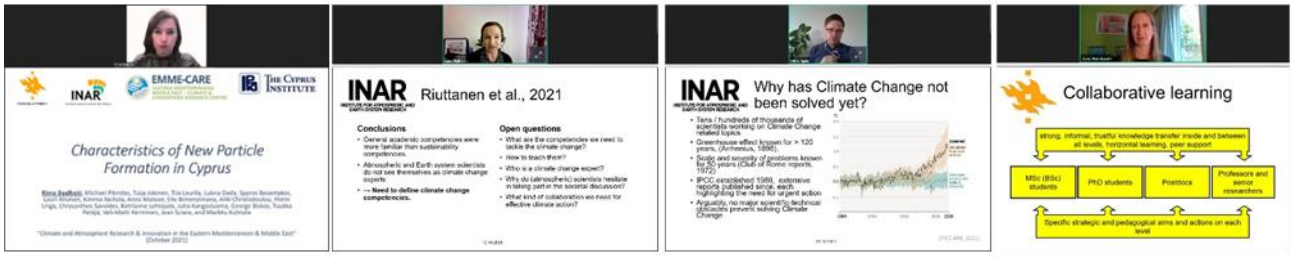
An indicative record of some of the activities that have been undertaken by Advanced Partners is outlined below.

University of Helsinki

- News items for the EMME-CARE website and social media

1. **EMME-CARE was a Collaborator in the 1st ACCC Impact Week, organized on 7-10 December 2021.**

The ACCC (Atmosphere Climate Competence Center) Impact Week (Dec. 2021) hosted series of talks and roundtable bringing together scientists and society stakeholders from the public and private sectors to discuss and co-design the practical solutions to climate change and air quality. The meeting was held remotely, with public open streaming which gathered 1,412 online participants from 37 countries in Europe, Asia and North America during the four-days event. The event was organized



in collaboration with the Pan-Eurasian Experiment Program HQ-Helsinki, International Eurasian Academy of Sciences (IEAS), Sofia Cultural Center, Finnish Ecumenical Network (SEN) and Climate Leadership Coalition (CLC). The week was sponsored by the Wihuri Foundation and the Prince Albert Foundation in Monaco.

A selection of talks are available on-demand for viewing at the ACCC YouTube channel (https://www.youtube.com/playlist?list=PLjFET64oKMY7m0LCouGc-gmrQXbnslNUY)

2. **University of Helsinki at "Climate and Atmosphere Research & Innovation in the Eastern Mediterranean & Middle East" (October 2021)**

University of Helsinki researchers under the EMME-CARE project contributed to the virtual workshop on both days with 4 talks.

Under the "Air Pollution and Impacts" session (11 Oct.2021), we had 1 talk by early-career scientist (ECS): Characteristic of New Particle Formation in Cyprus (Rima Baalbaki, female, ECS)

Under the "Education & Training opportunities" (12.Oct.2021), 3 talks:

- Climate Change competencies in Education (Laura Riuttanen, female)
- Teaching systems thinking in Climate Change and sustainability education (Mikko Äijälä, male)
- Learning researcher skills while working in small groups on real scientific questions and data and in a multi-disciplinary and multicultural course is motivating for teachers and students (Taina Ruuskanen, female)

3. **Advertising EMME-CARE activities and news on twitter and other platforms**

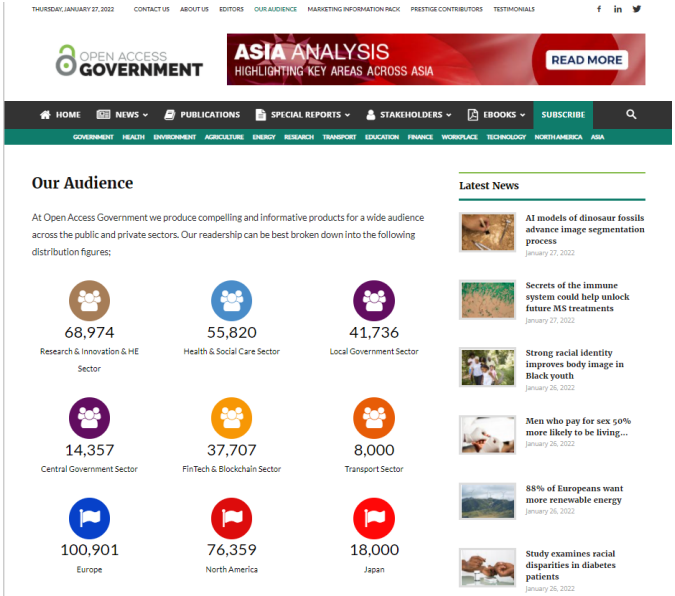
University of Helsinki is working continuously towards the promotion and advertisement of EMME-CARE related events and news through the INAR (Institute for atmospheric and Earth system research) twitter account. During that the time of reporting, the account has 1,775 Followers and the latest stats are listed below:

January 2022 stats: 1,911 profile visits, 16 new followers. 4,858 tweet impressions.

A screenshot of INAR tweet advertising the 2nd Climate Change Conference

Additionally, the EMME-CARE project and the Climate Change Conference were advertised on the website of "Open Access Government", which is a digital publication that provides an in-depth perspective on key public policy areas from all around the world with wide audience.

The publication can be found on this link: https://www.openaccessgovernment.org/emme-care-project-climate-middle-east/120365/



A screenshot of the audience of "Open Access Government"

A screenshot of the article published on “Open Access Government” website

4. Organizing training for CARE-C staff

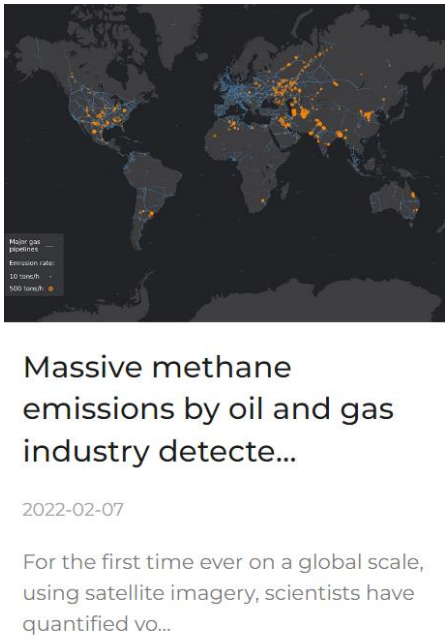
Rima Baalbaki, researcher from university of Helsinki visited The Cyprus Institute from October 11 until December 15, 2021 delivering workshops with main objective to transfer the know-how of ongoing aerosol measurements to the new staff of the Cyprus Atmospheric Observatory (CAO).

Subject	Participants	Research facility	Date	Type
Training on aerosol measurement techniques	Nikoleta Lekaki Moreno Parolin Nabil Abomailek Rubio	CAO, INL	25.10.2021	Lectures
Training on NAIS operation/maintenance	Nikoleta Lekaki Moreno Parolin Rafail Konatzii Nabil Abomailek Rubio Marinos Costi	CAO, INL	25.10.2021	Lectures / hands on training
Training on nCNC operation/maintenance	Fabian Schmidt-Ott Nikoleta Lekaki Moreno Parolin Rafail Konatzii Nabil Abomailek Rubio	CAO, INL	26.10.2021	Lectures / hands on training
Training on nCNC data handling	Nikoleta Lekaki	CAO	6.12.2021	Training

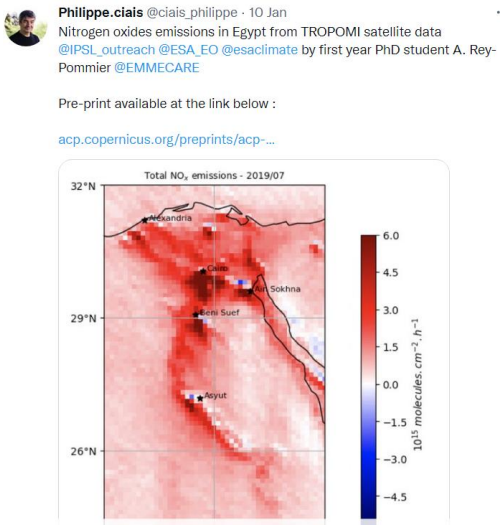
CEA

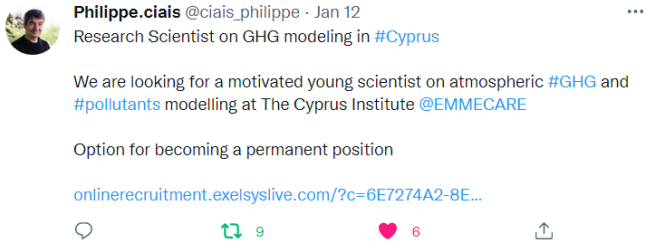
- Promotion of EMME-CARE events through social media and other digital means. Indicative examples included below.

Events item on EMME CARE Website, March 2022

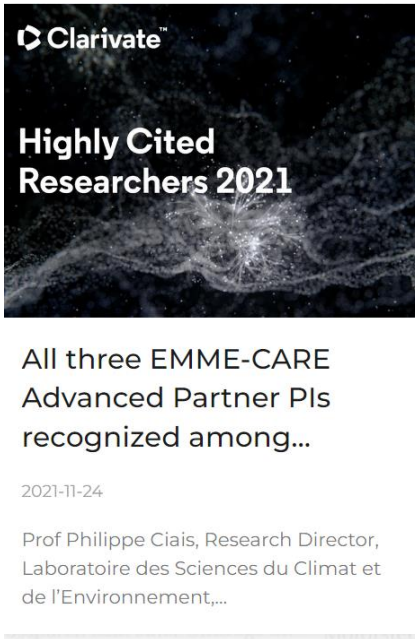


News item on EMME CARE Website, February 2022





Twitter posts - January 2022



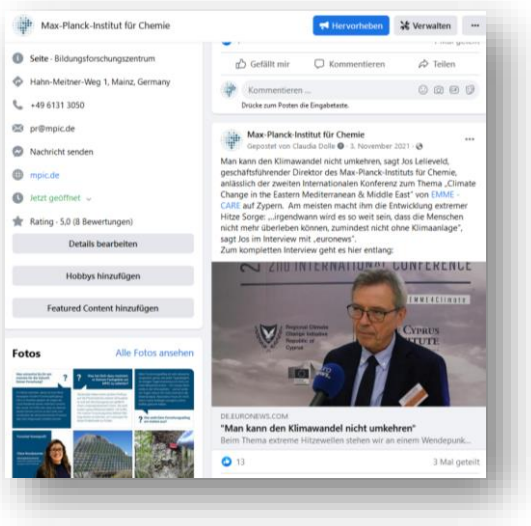
News item on EMME CARE website, November 2021

MPIC

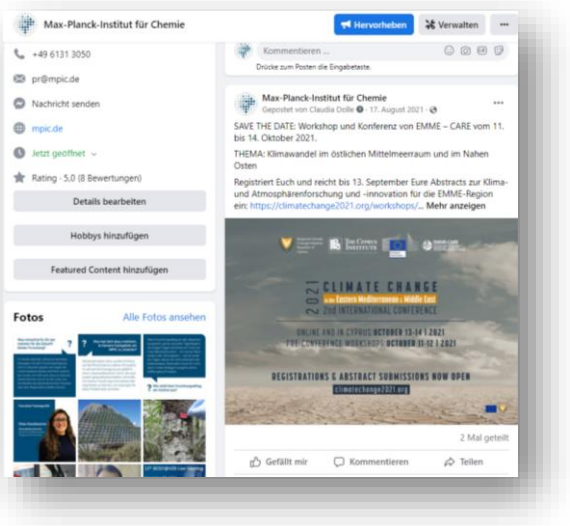
Various contributions through Press releases and Social Media posts across Facebook, Twitter and Instagram
Target groups included media, academic community, MPIC alumni and graduate community, others
Channels information:

- News release distribution via providers: EurekAlert, idw, Max Planck Newsletter and MPIC E-Mail distribution list to approx. 15.000 contacts
- MPIC Social Media:
- Facebook https://www.facebook.com/MPIC.Mainz (1200 followers)
- Instagram https://www.instagram.com/maxplanckinstituteforchemistry/ (appr. 2250 followers)
- Twitter https://twitter.com/MaxPlanckChem (453 followers)

MPIC Newsletter Article
Target groups: MPIC employees, Alumni, others (approx. 380 recipients)



Screenshot Facebook Post, November 3, 2021



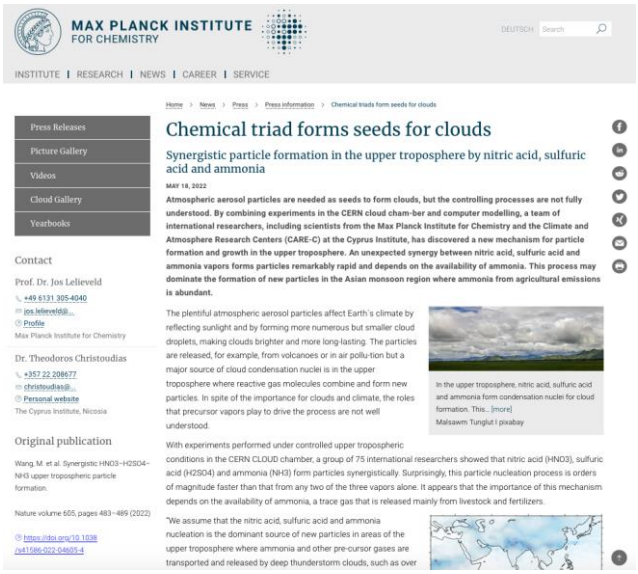
Screenshot Facebook post, August 17, 2021

Press releases

May 18, 2022

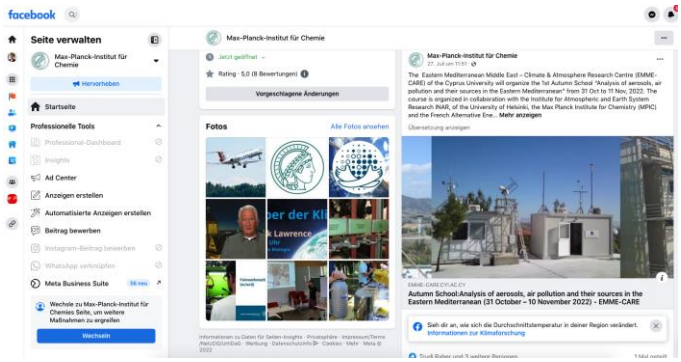
Chemical triad forms seeds for clouds
Synergistic particle formation in the upper troposphere by nitric acid, sulfuric acid and ammonia

Original publication
Wang, M. et al. Synergistic HNO3–H2SO4–NH3 upper tropospheric particle formation.
Nature volume 605, pages 483–489 (2022)
https://doi.org/10.1038/s41586-022-04605-4

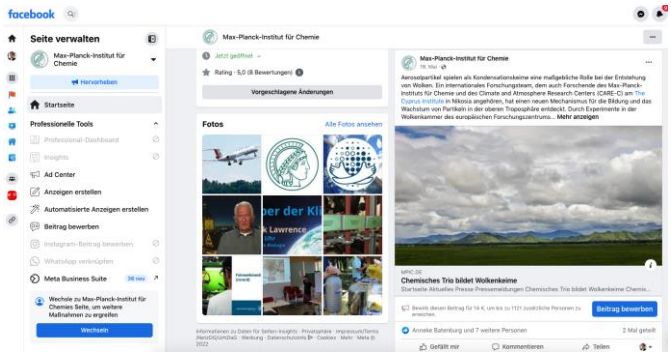


Screenshot press release

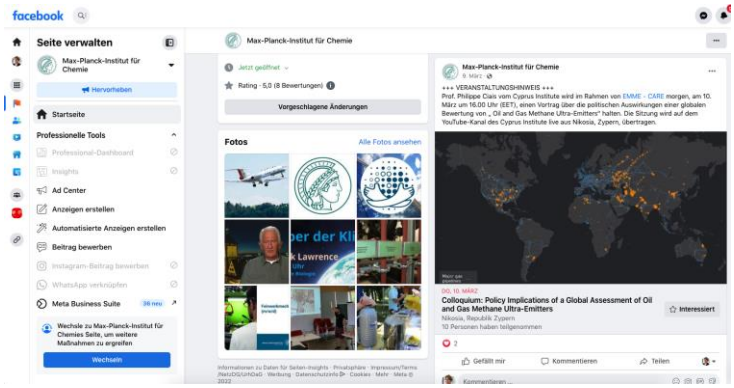
Social media dissemination: Facebook, Twitter, Instagram
April-July 2022



Facebook screenshot

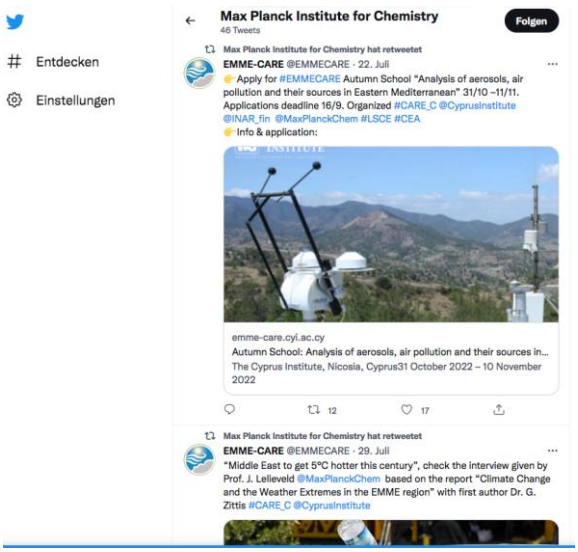


Facebook screenshot

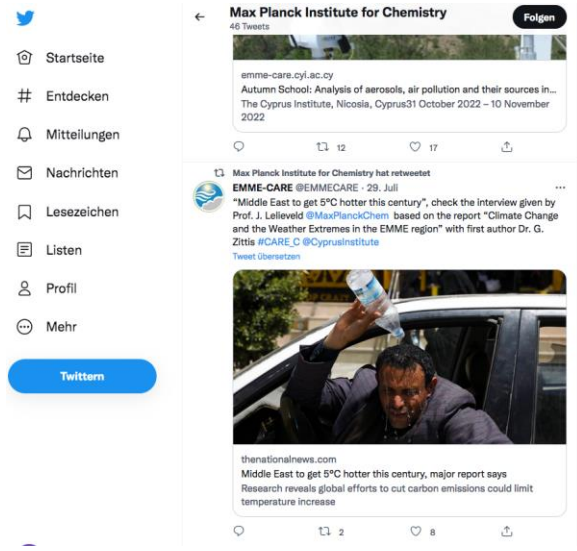


Facebook screenshot

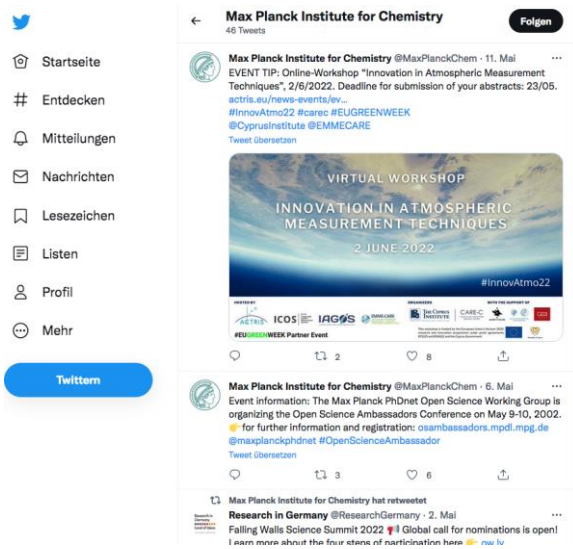
Twitter (since April 2022)



Twitter screenshot

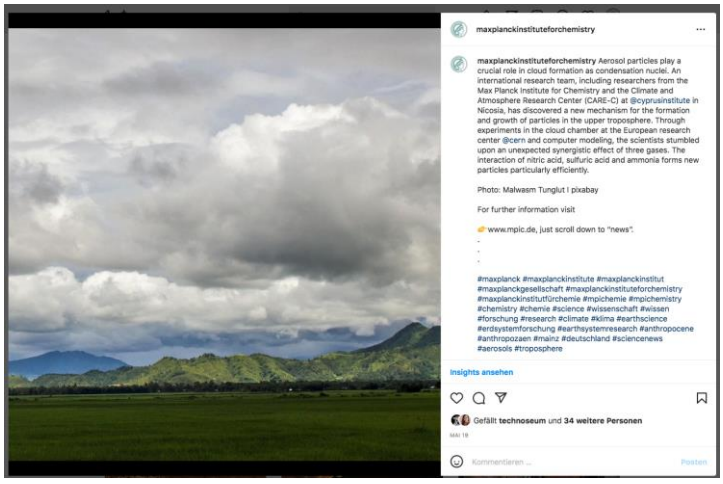


Twitter screenshot



Twitter screenshot

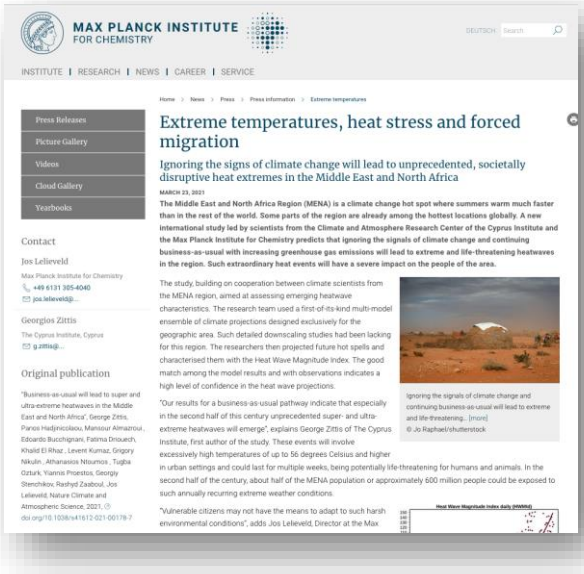
Instagram



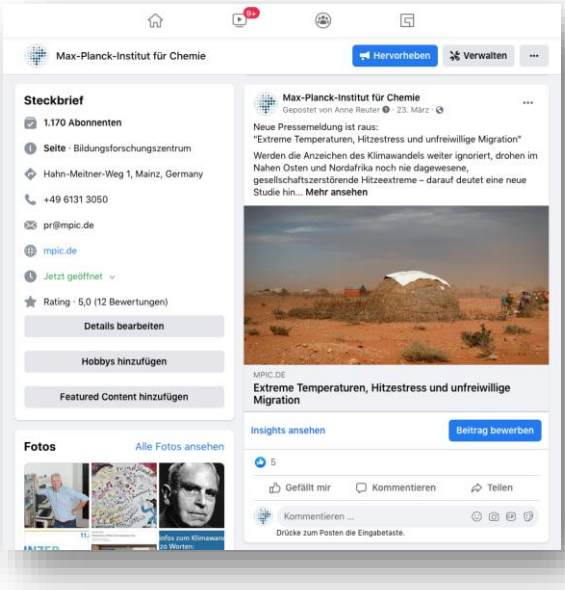
Instagram screenshot

March 23, 2021
Extreme temperatures, heat stress and forced migration, Ignoring the signs of climate change will lead to unprecedented, societally disruptive heat extremes in the Middle East and North Africa
https://www.mpic.de/4904342/extreme-temperaturen-hitzestress-und-unfreiwillige-migration

Original publication
"Business-as-usual will lead to super and ultra-extreme heatwaves in the Middle East and North Africa", George Zittis, Panos Hadjinicolaou, Mansour Almazroui , Edoardo Bucchignani, Fatima Driouech, Khalid El Rhaz , Levent Kurnaz, Grigory Nikulin, Athanasios Ntoumos, Tugba Ozturk, Yiannis Proestos, Georgiy Stenchikov, Rashyd Zaaboul, Jos Lelieveld, Nature Climate and Atmospheric Science, 2021, doi.org/10.1038/s41612-021-00178-7



Screenshot press release



Screenshot Facebook Post

February 24, 2021

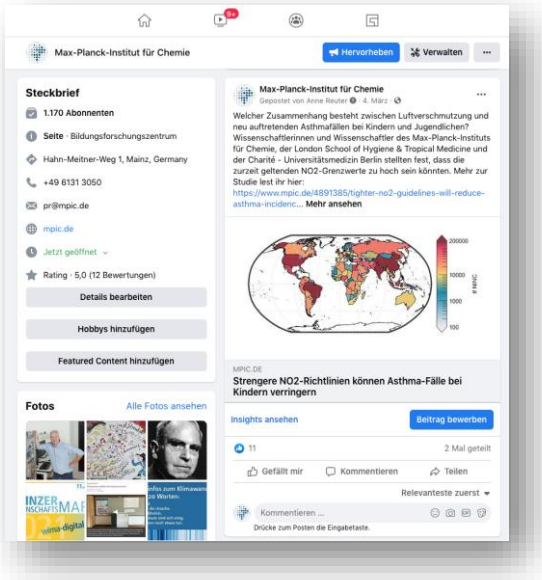
Tighter NO2 guidelines will reduce asthma incidence among children, New study suggests that revisiting the annual air pollution guideline for nitrogen dioxide is necessary

https://www.mpic.de/4891431/tighter-no2-guidelines-will-reduce-asthma-incidence-among-children

Original publication

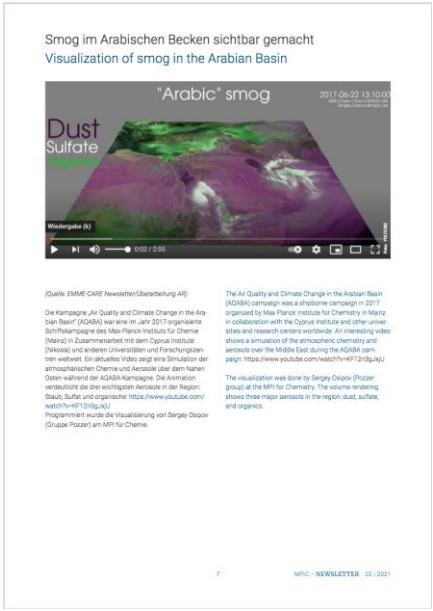
“Global and national assessment of the incidence of asthma in children and adolescents from major sources of ambient NO2”, Sourangsu Chowdhury, Andy Haines, Klaus Klingmüller, Vinod Kumar, Andrea Pozzer, Chandra Venkataraman, Christian Witt, Jos Lelieveld, Environmental Research Letters, doi: 10.1088/1748-9326/abe909

Screenshot press release



Screenshot Facebook Post

MPIC Newsletter Articles



Smog im Arabischen Becken sichtbar gemacht
Visualization of smog in the Arabian Basin

"Arabic" smog
2017-06-22 13:10:00
Dust
Sulfate
Organics

(Quelle: EMME-CARE Newsletter/Überarbeitung AR)

Die Kampagne „Air Quality and Climate Change in the Arabian Basin" (AQABA) war eine im Jahr 2017 organisierte Schiffskampagne des Max-Planck-Instituts für Chemie (Mainz) in Zusammenarbeit mit dem Cyprus Institute (Nikosia) und anderen Universitäten und Forschungszentren weltweit. Ein aktuelles Video zeigt eine Simulation der atmosphärischen Chemie und Aerosole über dem Nahen Osten während der AQABA-Kampagne. Die Animation verdeutlicht die drei wichtigsten Aerosole in der Region: Staub, Sulfat und organische: https://www.youtube.com/watch?v=KF12r3gJqUJ
Programmiert wurde die Visualisierung von Sergey Osipov (Gruppe Pozzer) am MPI für Chemie.

The Air Quality and Climate Change in the Arabian Basin (AQABA) campaign was a shiptborne campaign in 2017 organized by Max Planck Institute for Chemistry in Mainz in collaboration with the Cyprus Institute and other universities and research centers worldwide. An interesting video shows a simulation of the atmospheric chemistry and aerosols over the Middle East during the AQABA campaign: https://www.youtube.com/watch?v=KF12r3gJqUJ

The visualization was done by Sergey Osipov (Pozzer group) at the MPI for Chemistry. The volume rendering shows three major aerosols in the region: dust, sulfate, and organics.

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Target groups: MPIC employees, Alumni, others (approx. 380 recipients)

6. Key Performance Indicators

In order to measure the effectiveness and impact of the CoE's planned communication, dissemination and exploitation activities, Key Performance Indicators (KPIs) are set, monitored and reviewed.

To avoid confusion between reporting periods (EMME-CARE annual evaluations vs the reporting period of this deliverable), 2022 figures will be reported for the entirety of the year (Jan – Dec 2022) in D9.7.

Dimension	Key Performance Indicator	2020	2021	Objective 2026
Effectiveness	Scientific publications (per year)	74	97	**150**
	% scientific publications in TOP-25% impact factor journals of the field (per year)	56% [41]	65% [64]	**>75%**
	% scientific publications in TOP-10 journals of the field (per year)	38% [28]	41% [40]	**>60%**
	% scientific publications in TOP-5% impact factor journals of the field (per year)	12% [9]	12% [12]	**[8]**
	Plenary/ Invited talks at international conferences	1	7	**15**
	International conference presentations and workshops	30	41	**100**
Outcome	Number of CoE public events (per year)	5	8	**15**
	Estimated number of CoE press coverage (per year)	111	300	**325**
Efficiency	Number of following in CoE digital platforms (at end of year)	1238	1586	**2500**
	Estimated number of persons reached through events – including digital (per year)	2940	3040	**4000**
Network	Number of joint publications with regional partners	16	22	**>40**
	Number of joint publications with Advanced partners	40	61	**>50**
	Impact factor of joint publications with Advanced Partners	6.53	6.98	**>4**

Annexes

I. List of Conferences, Workshops and Trainings the CoE presented / participated in during the reporting period (M25 – M36)

Conferences:

1. Byron, J., J. Kreuzwieser, G. Purser, J. van Haren, S. N. Ladd, L. K. Meredith, C. Werner and J. Williams, Chiral monoterpenes reveal forest emission mechanisms and drought responses, Gordon Research Conference, June 2022
2. Edtbauer, A. E. Y. Pfannerstill, A. P. Pires Florentino, C. G. G. Barbosa, E. Rodriguez-Caballero, N. Zannoni, R. P. Alves, S. Wolff, A. Tsokankunku, A. Aptroot, M. de Oliveira Sá, A. C. de Araújo, M. Sörgel, S. M. de Oliveira, B. Weber, and J. Williams, Cryptogamic organisms are a substantial source and sink for volatile organic compounds in the Amazon region, Gordon Research Conference, June 2022
3. Bourtsoukidis, E., A. Pozzer, J. Williams, D. Makowski, J. Peñuelas, V. N. Matthaios, G. Lazoglou, A. M. Yañez-Serrano, P. Ciais, J. Lelieveld, M. Vrekoussis, N. Daskalakis, J. Sciare, Increased temperature sensitivity of monoterepene emissions from global vegetation, Gordon Research Conference, June 2022
4. Williams, J., Effect of human emissions to indoor air quality, Indoor Air Helsinki, May 2022
5. Lelieveld, J., Global impacts of air pollution on public health, Oslo joint seminar in atmospheric, ocean and climate science, May 2022
6. Bruggeman Adriana, Christoudias Theodoros, Constantinidou Katiana, Flores Urdiales Diego, Hadjinicolaou Panos, Kushta Jonilda, Kyriakides Pantelis, Lazoglou Georgia, Lelieveld Johannes, Michaelides Silas, Nabavi Omid, Ntoumos Athanasios, Paisi Niki, Theo Economou, Tzyrkalli Anna, Violaris Angelos, Zittis Georgios, European Geosciences Union (EGU) General Assembly 2022, Austria, May 2022
7. Bruggeman Adriana, Lazoglou Georgia, Lelieveld Johannes, Zittis Georgios, 12th International Hydrogeological Congress of Greece and Cyprus, Cyprus, March 2022
8. Williams, J., Chemical emissions and potential signals from people, MIT online lecture series, February 2022
9. Williams, J., Air Chemistry of Volatile Organic Compounds II, Masters Course CYI VOC lecture, January 2022
10. Aikaterini Bougiatioti, Fragkiskos Pierros, Konstantinos Dimitriou, Pierre-Yves Quehe, Marc Delmotte, Michel Ramonet and Nikolaos Mihalopoulos, (01-04 September 2021), Year-long greenhouse gases measurements at the urban environment of Athens, Greece, COMECAP2020
11. Aliki Christodoulou, Iasonas Stavroulas, Michael Pikridas, Spyros Bezantakos, Jean Sciare (30 August 2021), First near- real time PM1 chemical characterization in Cairo Megacity during wintertime, European Aerosol Conference, 2021
12. Andrea Pozzer, (3-5 November 2021), Contribuciones regionales y globales de la contaminación atmosférica al riesgo de muerte por COVID-19, Calidad del Aire y Salud Pública - CASAP VIII
13. Danielle El Hajj, Jean Sciare, Michael Pikridas, Florin Unga (30 August 2021), Climatology of aerosol optical properties and broad band radiation measured at Agia-Marina Xyliatou, Cyprus European Aerosol Conference, 2021
14. Elie Bimenyimana, Minas Iakovides, Michael Pikridas, Konstantina Oikonomou, Jean Sciare, (30 August - 3 September 2021), Local versus regional origin of PM pollution sources at various locations of Cyprus, European Aerosol Conference, 2021
15. Jonathan Williams, (04-November-21), Chemical emissions from human beings, Université de Dijon
16. Jonathan Williams, (05-Oct-21), Indoor air research directions Copenhagen, International Centre

for Indoor Environment and Energy, Department of Civil Engineering, Technical University of Denmark, 2800 Lyngby, Denmark

17. Jos Leieveld, (02-Sep-21), Impacts of air pollution on public health, AOCS, University of Maryland
18. Jos Leieveld, (11-15 October 2021), Impacts of anthropogenic emissions on public health, rainfall and climate., Air Pollution threats to Plant Ecosystems, Paphos
19. Michael Pikridas, Jean Sciare (30 August 2021), Source apportionment of fine particulate matter by combining high time resolution organic and inorganic chemical composition datasets, European Aerosol Conference, 2021
20. Rafail Konatzii, Fabian Schmidt Ott, Panagiotis Stagianos, Geroge Biskos, Jean Sciare, Michael Pikridas, (30 August 2021), Assessing the nosocomial levels of SARS-CoV-2: A comprehensive study in four hospital clinics of Cyprus, European Aerosol Conference, 2021

Workshops:

1. Online Workshop: Climate and Atmosphere Research & Innovation in the Eastern Mediterranean & Middle East (EMME), 11 & 12 October, 2021.
2. Change in the Eastern Mediterranean & Middle East", 13 & 14 October 2021.
3. Online Workshop: Innovation workshop on Atmospheric measurement techniques, 2nd of June 2022.
4. 3D Printing – a New Route to Scientific Aerosol Instruments: From Fast Prototyping to Instruments for Routine Measurements February 2022
5. Colloquium: Policy Implications of a Global Assessment of Oil and Gas Methane Ultra-Emitters 10th March 2022
6. Coordinating Climate Action in the Eastern Mediterranean & Middle East: Initiatives in Research & Innovation and Policy 30th March 2022
7. Colloquium: Reactive Trace Gases in the Earth's System, 10th May 2022

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