



EMME-CARE
EASTERN MEDITERRANEAN
MIDDLE EAST – CLIMATE &
ATMOSPHERE RESEARCH CENTRE

“Horizon Europe” Information Day Widening Participation & Spreading Excellence

“Experiences from Implementation of a Teaming-2 Project”

Marina Papageorgiou

**Communications and Business Development
Coordinator**

EMME-CARE / CARE-C, The Cyprus Institute

with thanks to:



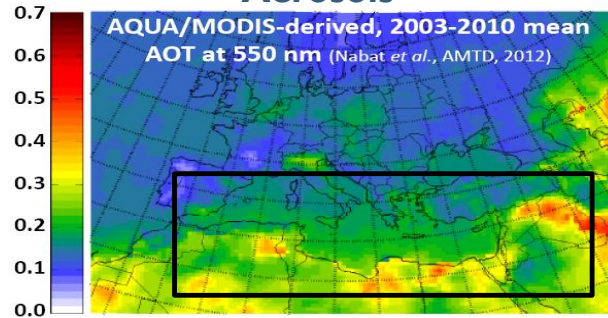
This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 856612 and the Cyprus Government.



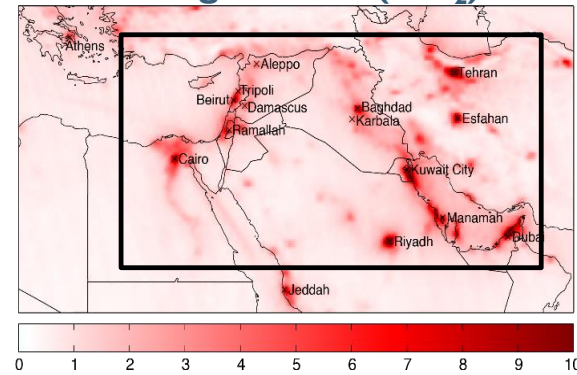
WHY SHOULD WE CARE ABOUT THE EMME?

EMME IS AN AIR POLLUTION AND CLIMATE CHANGE HOT SPOT

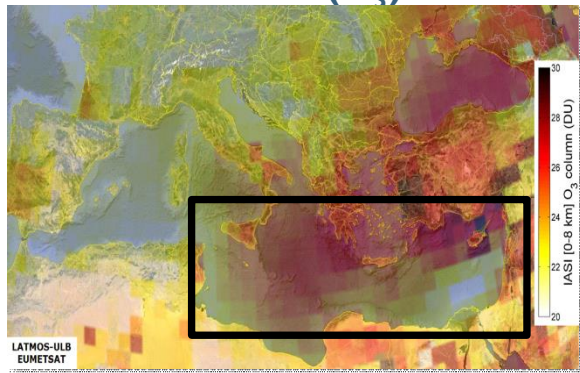
Aerosols



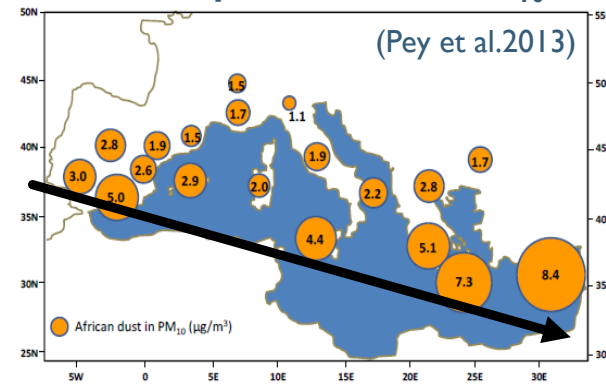
Nitrogen oxide (NO₂)



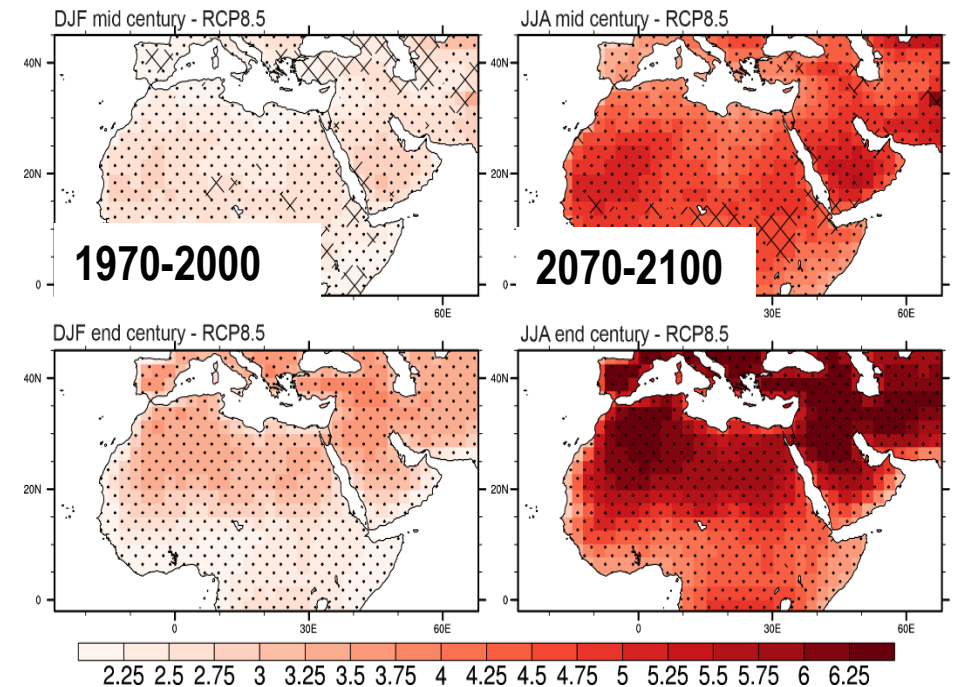
Ozone (O₃)



Atmospheric dust in PM₁₀



Air Temperature





EMME-CARE

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A knowledge hub for
air pollution & **climate change** research, innovation and
education aimed at creating sustainable solutions to
address the climate impacts and societal challenges
facing **Cyprus** and the **EMME** region



Atmosphere & Climate Division

Teaming 2



7-year project
Started 01/09/2019



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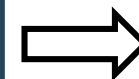


**EMME
Top Research
Institutions**



New Centre of Excellence

100 Staff and growing



**Cyprus Public
Departments**

Cyprus Institute's overall Overview & Mission



A **Research and Educational** institution, established in 2005, and suited to a knowledge economy

A **European** institution for the Eastern Mediterranean based in Cyprus

A **Non-Governmental, Non-Profit** institution advancing peace and prosperity in the region using Science, Technology and Innovation.





- Energy, Environment & Water (EEWRC)
 - Science & Technology in Archaeology and Culture (STARC)
 - Computation-Based Science & Technology (CaSToRC)
 - **Climate and Atmosphere (CARE-C)**
- **WIDESPREAD TEAMING Centre-of-Excellence**



Research Achievements

**Competitive
Grants**

>€68m

**Scientific
Publications**

>1000

**Active Research
Projects**

64

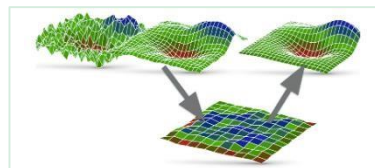
**Research
Staff**

>200

**Research
Laboratories**

16

ERA Chairs

Cyprus Solar Thermal Energy
for the MediterraneanCyprus Solar Thermal Energy for
the Mediterranean (CySTEM) €3.2 MModelling and SIMulation for
Engineering Applications
(SimEA) €3.2 MOnly Institution
in Cyprus
Awarded Two
ERA Chairs

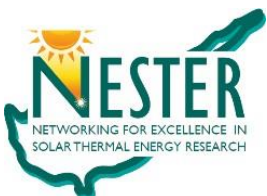
European Joint Doctorates (EJD)



EUROPEAN JOINT DOCTORATES

High Performance Computing for
Life sciences, Engineering and
Physics (HPC-LEAP) €3.7 MSimulation in Multiscale
Physical and Biological
Systems (STIMULATE)
€3.75 MOnly Institution
in Europe
Awarded Two
EJD's

WIDESPREAD TWINNING

NESTER: Networking for
Excellence in Solar Thermal
Energy ResearchPROMISED: Promoting
Archaeological Science in the
Eastern Mediterranean

A BRIDGE BETWEEN THE EU & THE MIDDLE EAST

CoE as a “Spreading Excellence” bridge between the EU & the Middle East

Leveraging the strategic location of Cyprus



EUROPEAN UNION

Research Infrastructure



Competitive Funds



MIDDLE EAST

Regional Nodes & Clusters



Regional Research networks

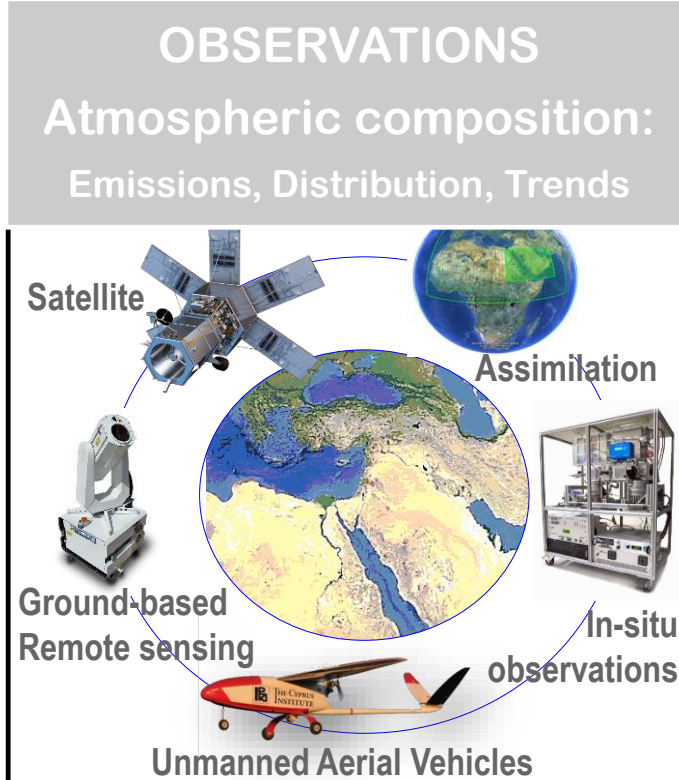


HOW EMME-CARE CREATES IMPACT

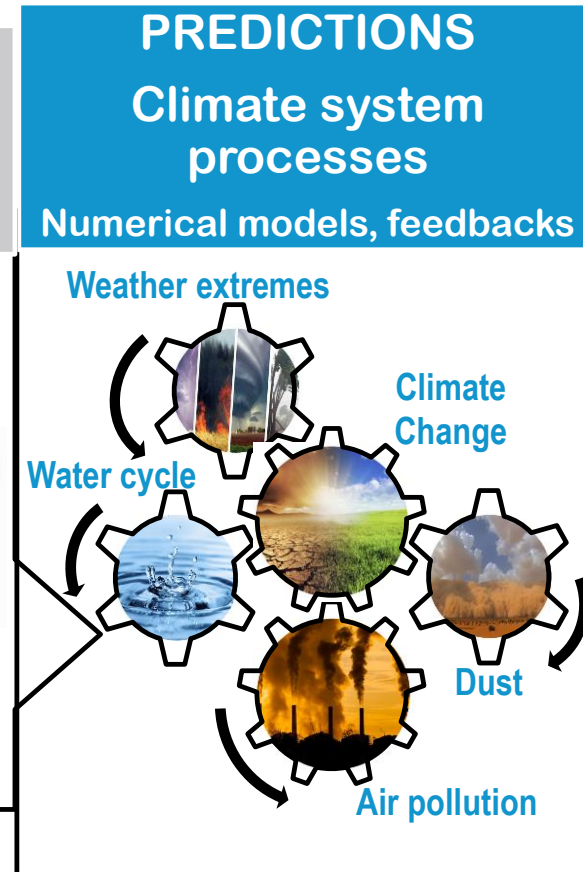
Fill the gap of **OBSERVATIONS** for a better **PREDICTION** of the **IMPACTS** of climate change in order to support national mitigation and adaption **POLICIES** with **INNOVATIVE** solutions.



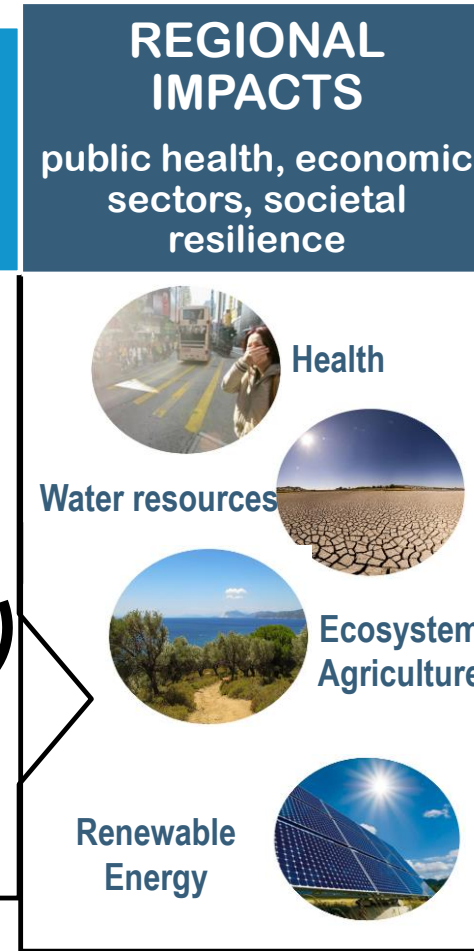
Environmental Observation Dept.



Environmental Predictions Dept.



Impact & Policy Dept. Innovation Dept.



IMPACT & POLICY

Regional impacts:

Energy – Water systems
& Policy, public health,
economic sectors,
societal resilience



Health



Water
resources



Ecosystem
Agriculture



Energy

- ✓ Implementation of enabling technologies (eg.remote sensing,digitalization)
- ✓ Health impact assessment (air quality,climate change)
- ✓ Impacts on key economic sectors (Agroforestry,Tourism,etc.)
- ✓ Impacts of mitigation scenarios with cost-benefit analyses
- ✓ Legal framework and policy aspects of (inter)national climate initiatives

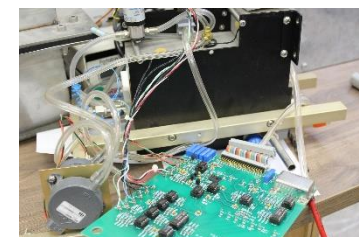


June 2018.The President of the Republic announced National and Regional Climate Change Initiative to be Coordinated scientifically by the Cyprus Institute (Pl. C.N Papanicolas)

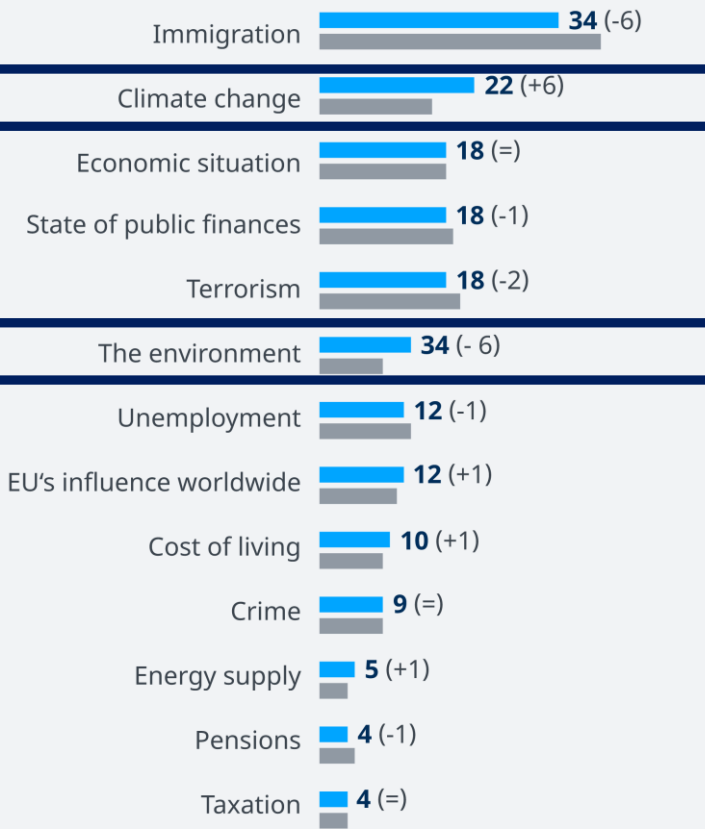
The Initiative of the Cyprus President for Climate Change in the EMME

- Purpose: To coordinate the concerted efforts of the countries of the Eastern Mediterranean and the Middle East to address the effects of climate change.
- The EMME countries to be engaged are Cyprus, Egypt, Greece, the United Arab Emirates, Jordan, Iraq, Iran, Israel, Qatar, Kuwait, Lebanon, Bahrain, Oman, Palestine, Saudi Arabia, Syria and Turkey.

INNOVATION



What are the two most important issues facing the EU?
in percent



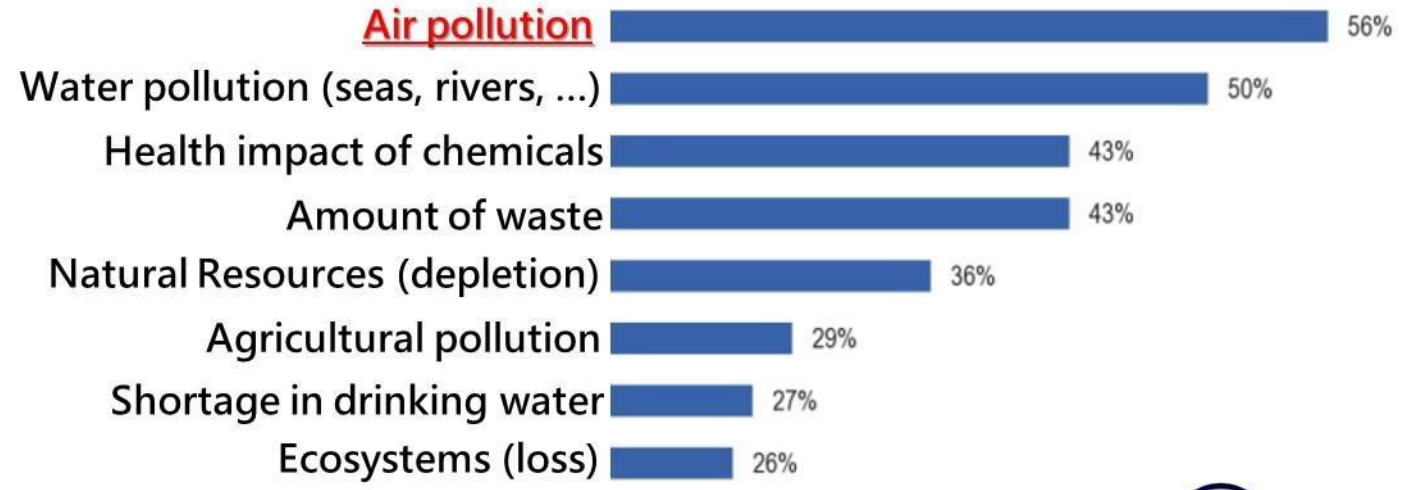
■ August 2018 ■ August 2019
Source: Eurobarometer © DW

A Major Issue For Citizens

➡ For EU (Cypriot) citizens, **CLIMATE CHANGE** comes as second of the two most important issues facing the EU ...

➡ For EU (Cypriot) citizens, **ENVIRONMENT** comes as sixth of the two most important issues facing the EU ...

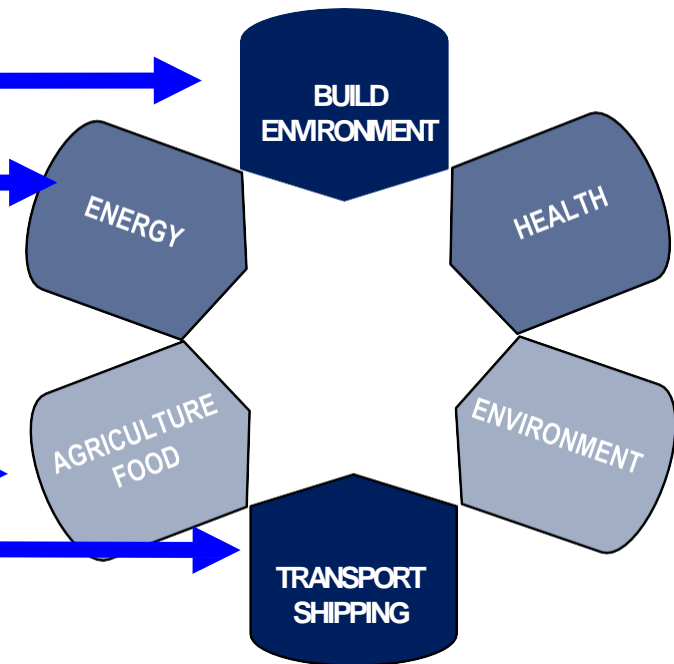
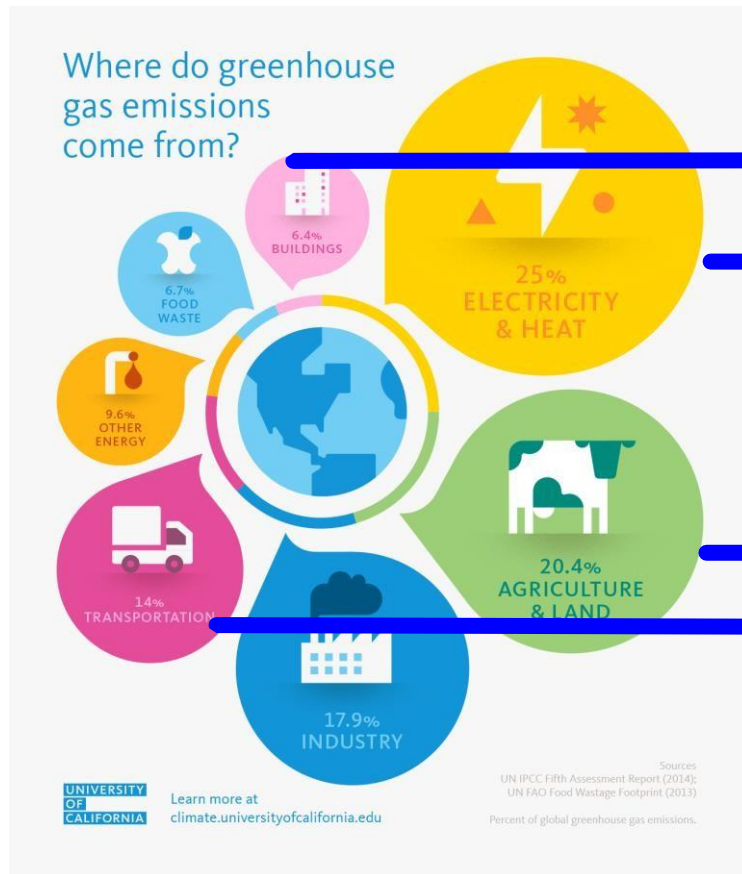
...and **AIR POLLUTION** comes as the first environmental concern



Source :Adapted from « Special Eurobarometer 416 (2014), Attitudes of European citizens towards the environment »



ALIGNMENT WITH CYPRUS SMART SPECIALIZATION (S3CY)



The main economic sectors emitting CO₂ are the main priorities of the Cyprus Smart Specialization Strategy

CLIMATE ACTION IS A TOP PRIORITY FOR CYPRUS UN SUSTAINABLE DEVELOPMENT GOAL

Table 1 | SDG Index for the European Union

RANK	COUNTRY	SCORE
1	Denmark	79.8
2	Sweden	79.4
3	Finland	79.1
4	Austria	76.7
5	Germany	75.3
6	France	74.7
7	Netherlands	71.8
8	Czech Republic	71.8
9	Slovenia	71.7
10	Estonia	70.4
11	Belgium	70.3
12	United Kingdom	70.2
13	Ireland	68.2
14	Spain	66.8
15	Portugal	66.2
16	Poland	66.1
17	Luxembourg	66.0
18	Italy	65.3
19	Slovak Republic	65.2
20	Latvia	65.2
21	Hungary	65.1
22	Croatia	63.2
23	Lithuania	62.6
24	Malta	62.3
25	Greece	58.9
26	Bulgaria	57.1
27	Romania	55.9
28	Cyprus	55.0
European Union*		70.1

*Population-weighted average
Source: Authors' calculations

SUSTAINABLE DEVELOPMENT GOALS

Current Assessment

Click on a goal to view more information.



Trends

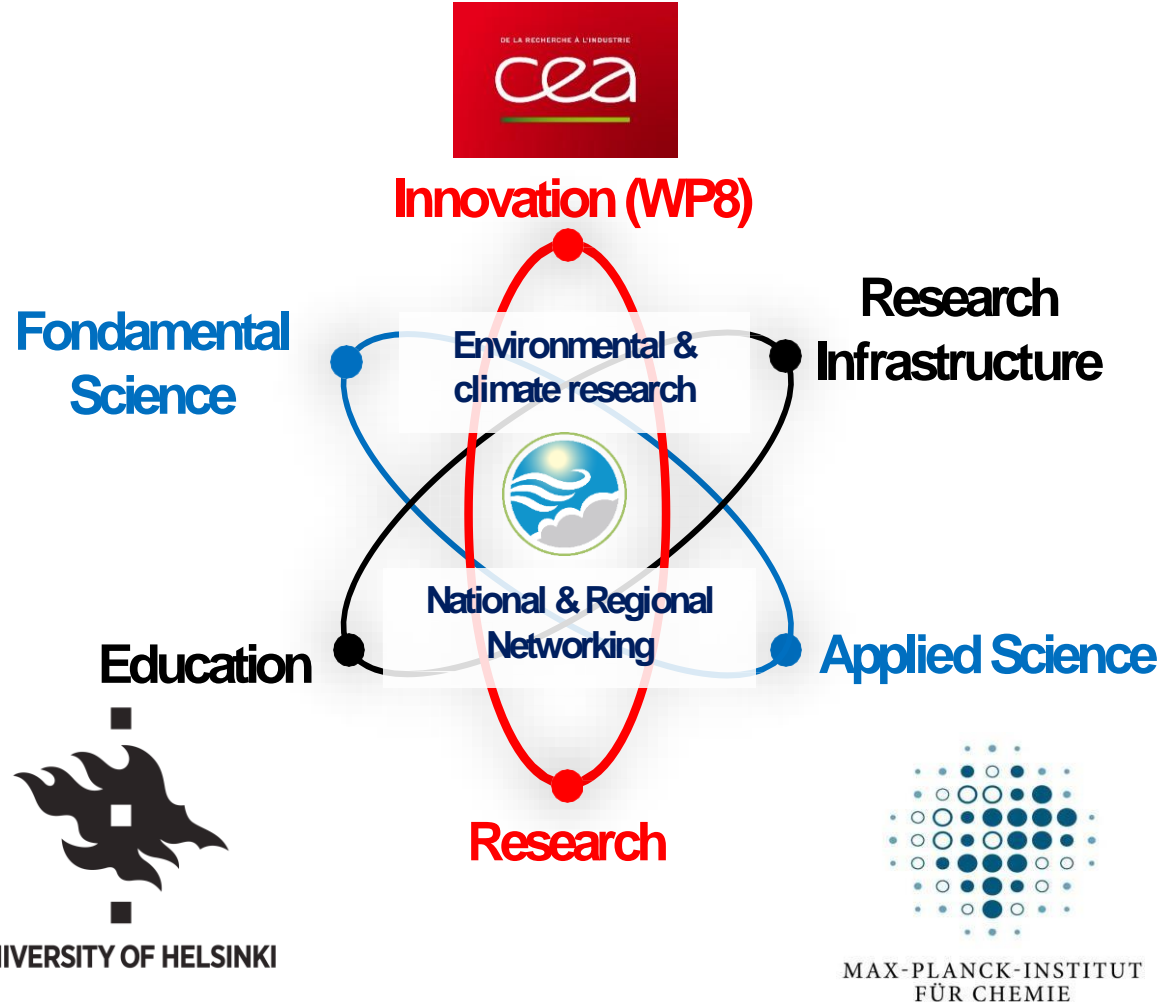
Click on a trend to view more information.



- Cyprus is ranking last in the EU28 SDG Index
- Climate Actions among the main challenges for Cyprus

CONTRIBUTION OF THE 3 (EU) ADVANCED PARTNERS : THE RECIPE OF SUCCESS

Perfect alignment between Expertise and EMME-CARE WPs



High complementarity in Research topics

	Air Pollution	Greenhouse Gases	Climate
UNIVERSITY OF HELSINKI	✓		
cea		✓	
MAX-PLANCK-INSTITUT FÜR CHEMIE			✓

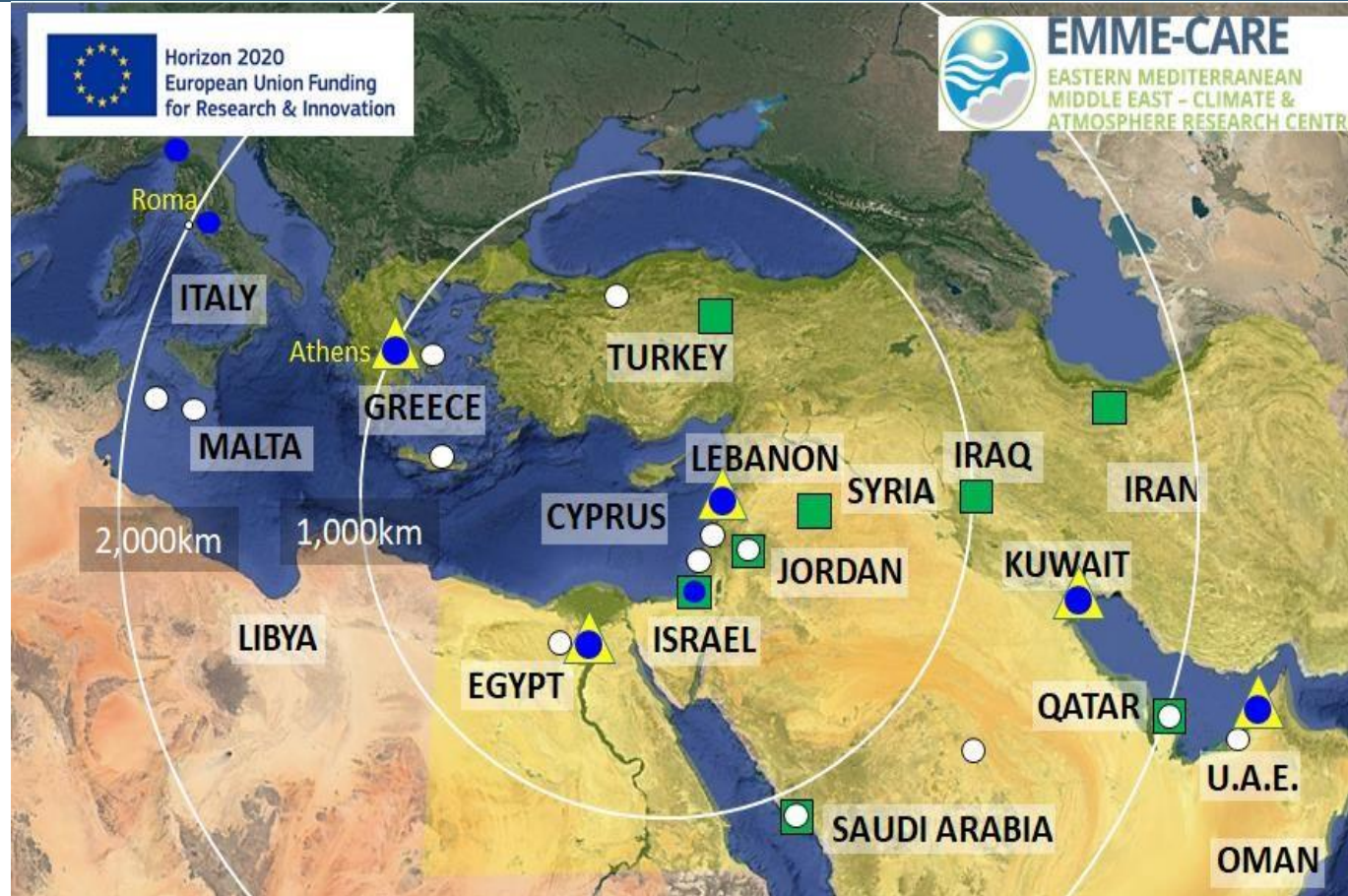
Strong collaboration between top world scientists

UNIVERSITY OF HELSINKI		Markku KULMALA , Academy Professor Director of Institute for Atmospheric and Earth System Research (INAR), Advanced Partner PI (UH)
cea		Philippe CIAIS , Professor Academy of Science, Research Director at LSCE (CEA, CNRS, UVSQ), Advanced Partner PI (CEA)
MAX-PLANCK-INSTITUT FÜR CHEMIE		Jos LEIEVELD , Professor Director of Max Planck Institute for Chemistry Advanced Partner PI (MPG)

NATIONAL CLUSTERS



REGIONAL NETWORK



● Partners with existing MoU

● Partners with planned MoU

▲ Established

■ To be established

BUDGET : 1M€ (2020-2024)

- ✓ Affiliation of Faculty
- ✓ Joint Research projects
- ✓ Joint PhD
- ✓ Technical Staff exchange

CONCRETE OPERATIONAL STRUCTURE & RESEARCH SUPPORT MECHANISM

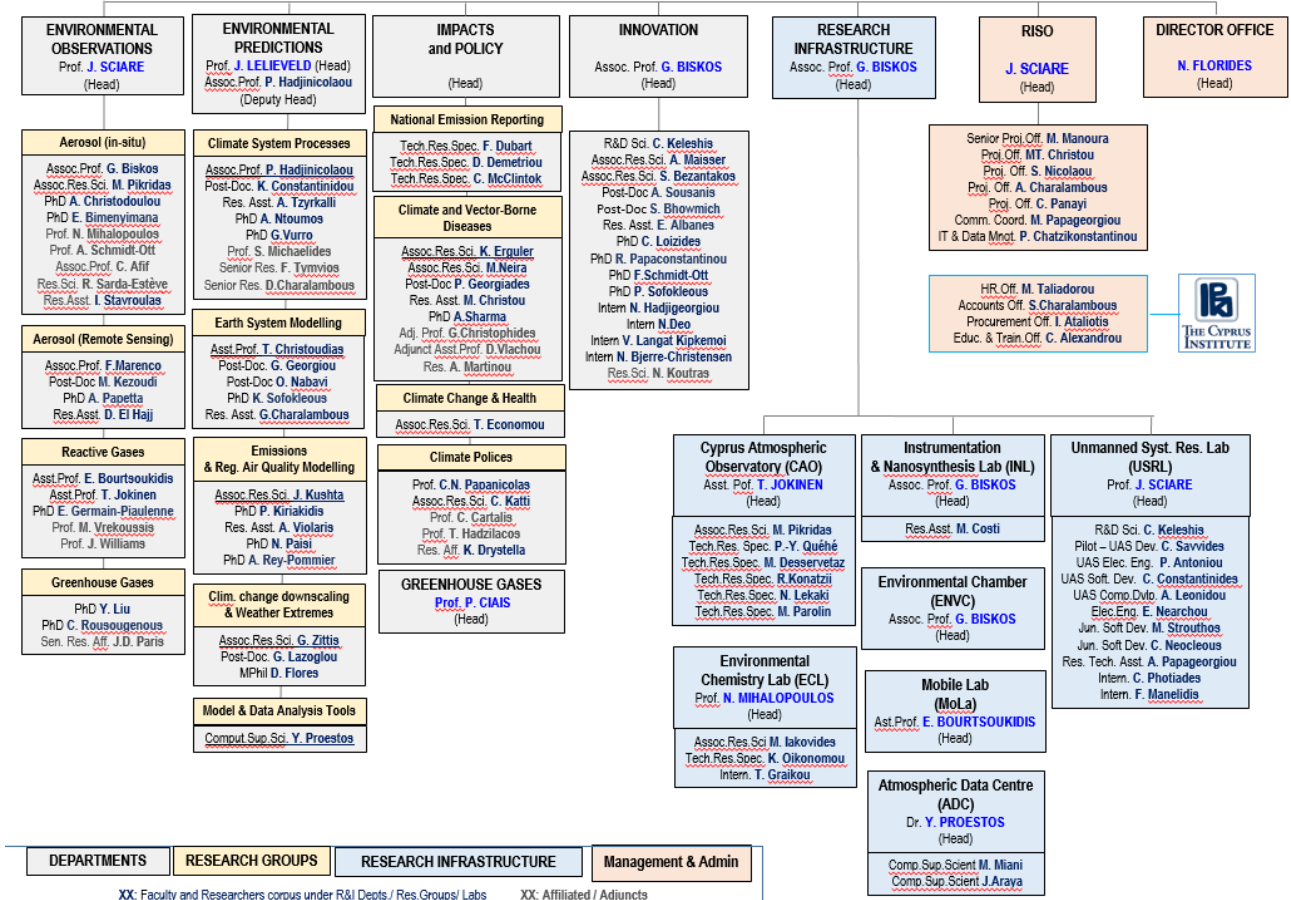


CARE-C

DIRECTOR
Prof. J. SCIARE

ORGANOGRAM

Version 01 December 2021



104 STAFF

OBJECTIVE: 100 in 2026

Research & Innovation Support Operations (RISO) Unit established to support the timely monitoring – management – administration – delivery of KPIs, Milestones, Deliverables.

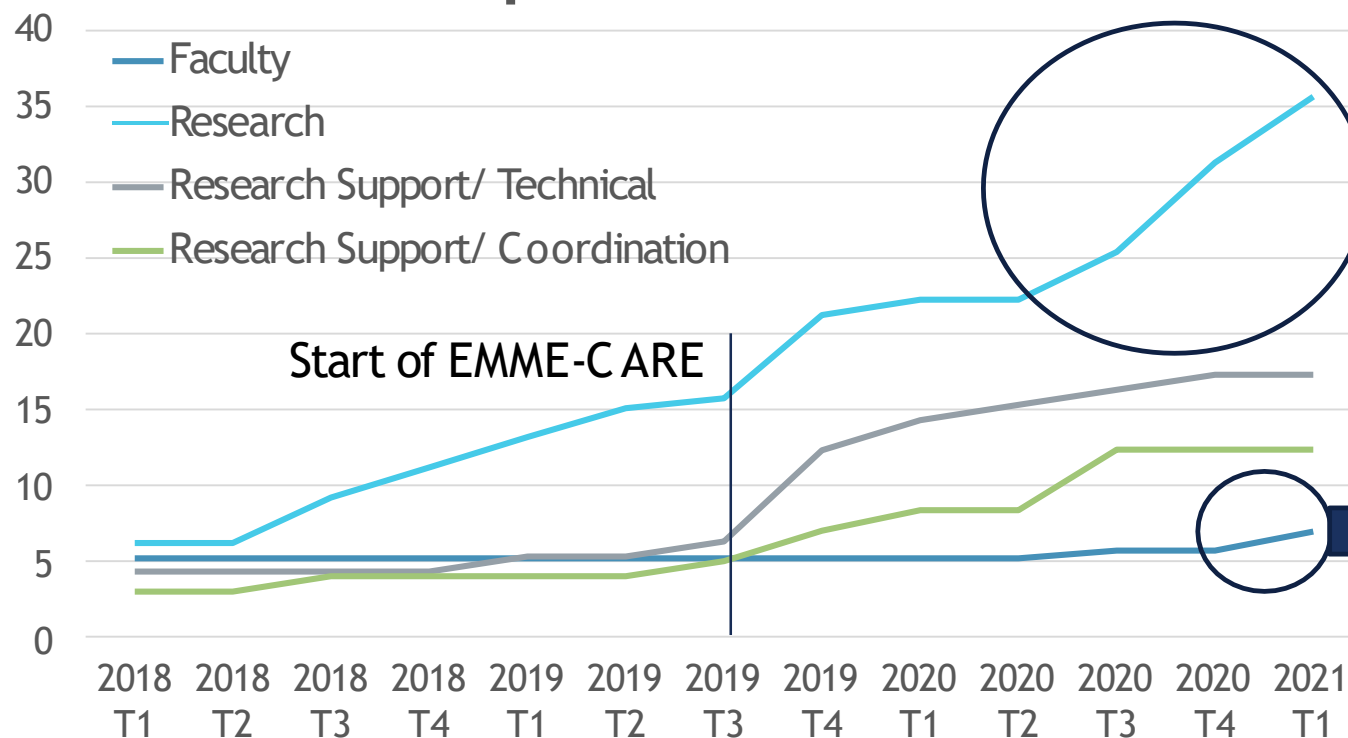
- ✓ RISO operating at **interface of CoE and the central Cyl**. Thus contributing to:
 - Autonomous, fast and efficient establishment of CoE; and
 - Leveraging and facilitating workflow with Cyl
 - Highly specialised Staff, as per Best Practices of Advanced Partners
 - International Standards and Praxis of International Associations and Networks for Research Management & Admin (EARMA, NCURA, EURAXESS, EPA, PMI)

DEPARTMENTS RESEARCH GROUPS RESEARCH INFRASTRUCTURE Management & Admin

XX: Faculty and Researchers corpus under R&I Depts / Res. Groups / Labs XX: Affiliated / Adjuncts

ATTRACTIVE WORKING ENVIRONMENT

CARE-C Total FTE per Trimester



**+ 15 young researchers
(Joint PhDs + Post-docs)**

+ 4 international Faculty



- ✓ 15 different nationalities
- ✓ 50% non-Cypriot research staff
- ✓ 1/3 Cypriots repatriated



KPIs: CARE-C Major Achievements since its establishment (Jan. 2020)

Administration

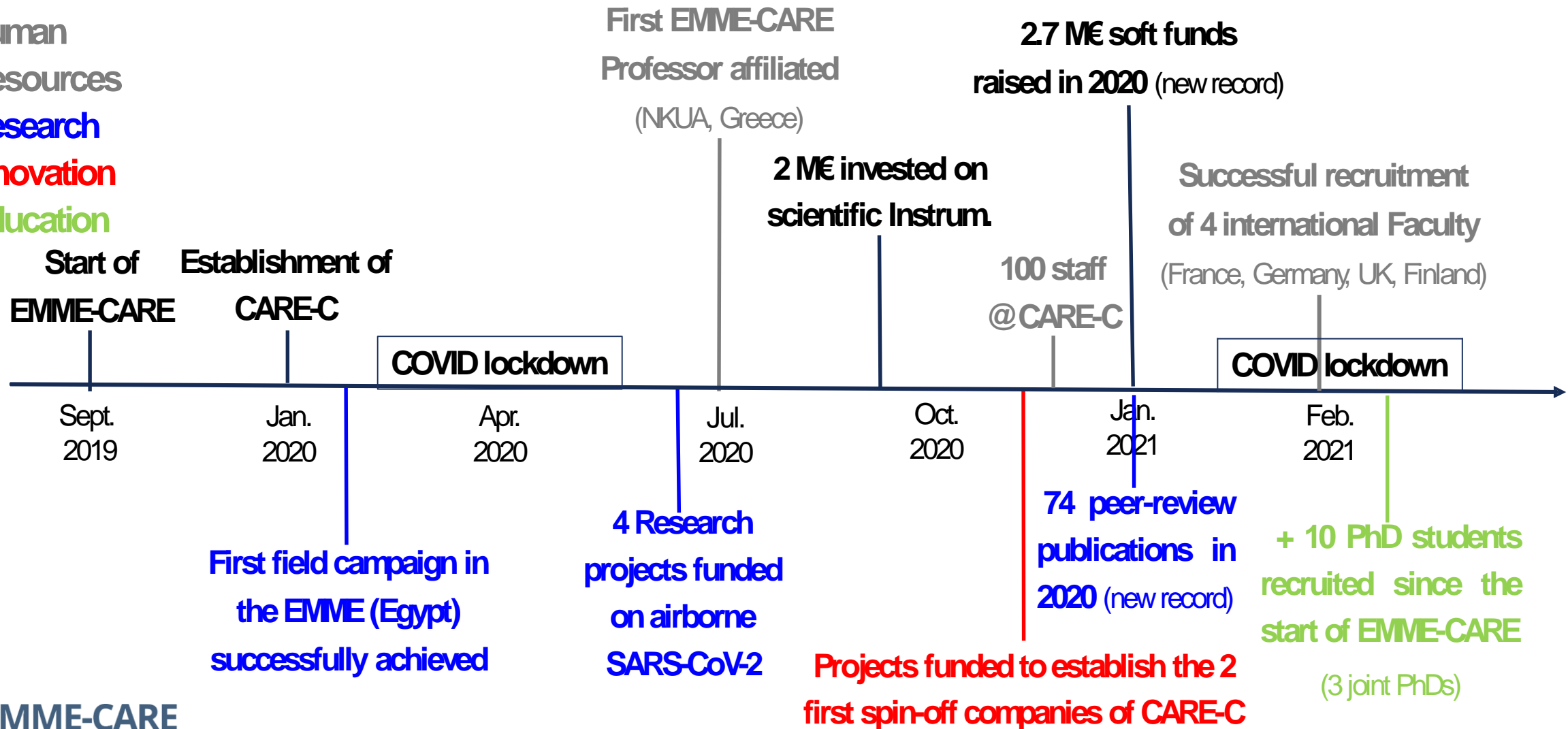
Human

Resources

Research

Innovation

Education



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SOME TAKE AWAY MESSAGES

- Inspiring Vision and Solid Mission
- Clear Objectives and path to impact
- Measurable KPIs & Detailed Work/Business Plan
- Engaged/Dedicated Advanced Partners
- Solid Structure and RMA-support-operation
- Alignment and consistency with
 - Smart Specialization Strategy
 - Strategic Priorities and Needs and Documents of your Country, your Region and the EU added value (e.g. EU Green Deal, green transition...)
- Proposed impact at Pan-European level

Ambition to become a “Spreading Excellence” and “Widening Participation” “hub” for your country and region, with a clear path to impact



THANK YOU

Marina Papageorgiou

Communications and Business Development Coordinator

EMME-CARE / CARE-C, The Cyprus Institute

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