



Climate Change and Energy Transition on the Mediterranean

Cross-Fertilization between academics, industrial
communities, policy makers and stakeholders

November 21st & 22nd 2019



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The Mediterranean region is a hot spot of climate change, dominated by a significant warming, a sharp decrease in average annual rainfall, and an increase in the probability of occurrence of flood- and drought-prone events. And it is under pressure of significant increase in the population, increasing vulnerability in primary life assets.

Current economic practices and policies primarily follow conventional development models that result in higher greenhouse gas and pollutant emissions, depletion of natural resources, growing ecological deficits and in externalization of social and environmental impacts. This pressure contributes to the over-exploitation of already scarce water resources and to the increase in energy demand for which supply is not always ensured.



Location

École Polytechnique campus, Palaiseau (15 km from Paris), France



Target

The systemic complexity of energy transition in a region under such high anthropogenic pressure has led the multi-agencies MISTRALS program on the Mediterranean, to joint efforts with the École Polytechnique and its Executive Education in order to organize this workshop where researchers of various expertise will meet with **public stakeholders** and **industrials**, in a collective analysis of the energy transition pathways for the Mediterranean countries in the context of climate change.



Objectives

Transdisciplinary long-term strategies will be required to support sustainable economic growth while improving living conditions, social equity and preserving the environment.

Energy generation must evolve toward sustainable trajectories everywhere around the globe. Understanding the efforts needed in hot spot regions as the Mediterranean will be key in the next decades.

The objective of this the workshop is to mix views from academics, industrials and public authorities on the implementation of a sustainable energy transition compatible with international negotiations in order, for the participant, to:

- › identify the main challenges in the years ahead
- › contribute in the marketplace of ideas
- › discuss potential sustainable solutions



Program

Each half-a-day session will focus on a plenary presenting a keynote, and 4 workshops in parallel between which the participant will be able to choose.

The goal of the workshops is to promote cross-fertilization debate.

DAY 1

QUESTION 1: How is the climate changing in the mediterranean and what are the expected impacts ?

Keynote presentation

- › How the Mediterranean climate evolution compares with the global trend?

Workshops

- › How does the Mediterranean Sea control the regional climate and resources?
- › How does climate change affect energy resources and demand in the Mediterranean?
- › Is there a need for Mediterranean climate services for energy?
- › What could be the consequences for water/ energy nexus?

QUESTION 2: Has a mediterranean identity emerged in international climate negotiations ?

Keynote presentation

- › What are the consequences for the Mediterranean countries of the COP24 outcome on the Paris Accord implementation rules?

Workshops

- › The Mediterranean identity in the COPs.
- › The Blue Economy: who, when, where?
- › Economic Cooperation: from Europe to Africa.
- › INDC in the Mediterranean Countries: case studies.

DAY 2

QUESTION 3: What are the adaptation and mitigation challenges in the energy sector ?

Keynote presentation

- › Do we have the tools to evaluate energy strategies in the Mediterranean region?

Workshops

- › Changing landscape: energy scenarios.
- › Supra-regional partnerships for energy transition in the Mediterranean
- › Clean energy for Mediterranean islands.
- › Financing the energy transition.

QUESTION 4: What «4.0» solutions can ensure a sustainable energy transition that is compatible with international negotiations ?

Keynote presentation

- › How to invent change in sustainable energy?

Workshops

- › North-South Mediterranean electricity grid development contrast.
- › Mediterranean regulatory framework.
- › Carbon regulation and stranded assets: what we do with oil and gas?
- › Mobilizing the Mediterranean citizens in renewable energy development.



This conference is supported by MISTRALS (Mediterranean Integrated Studies at Regional And Local Scales), an interdisciplinary research program led by CNRS in association with ADEME, CEA, IFREMER, INRA, IRD, IRSTEA, Météo-France.

The main objectives of MISTRALS are to federate French researchers and to reinforce the international collaboration between Mediterranean countries to address the question of the livability of the Mediterranean basin regions by the end of the century, mobilising researchers, stakeholders, industries....



Philippe Drobinski
Conference Chair

Research director at CNRS and professor at the École Polytechnique on climate change dynamic and energy transition in different masters. He is also the director of the Laboratoire de Météorologie Dynamique (LMD).

His research focuses on the Mediterranean climate variability and trend with a particular interest in water cycle and energy resources. He is coordinator of the international HyMeX program on the Mediterranean water cycle. He also coordinates the transdisciplinary program on energy transition TREND-X, which has received support from the Seibel Energy Institute as well as industrial partners (TOTAL, nam.R...).

At the École Polytechnique Executive Education, he is responsible of training programs on local projects for the energy transition.

SCIENTIFIC COMMITTEE

- › **Abdelghani Chehbouni** – Mohammed VI Polytechnic University, Morocco.
- › **Anna Creti** – University Paris-Dauphine, France
- › **Gianmaria Sannino** – Italian National Agency for New Technologies, Energy and Sustainable Economic Development (ENEA), Italy.
- › **Víctor Homar Santaner** – University of the Balearic Islands, Spain,
- › **Alexis Tantet** – École Polytechnique, France.
- › **Robert Vautard** – Centre National de Recherche Scientifique (CNRS), France.
- › **Jordi Badosa Franch** – École Polytechnique, France.
- › **Yves Trambly** – Institut de Recherche pour le Développement (IRD), France.
- › **Imma Bastida Valbuena** – École Polytechnique Executive Education, France.
- › **Guilhem Vidiella** – École Polytechnique Executive Education, France.

Prices

Researchers and Academics :

supported by MISTRALS

Public stakeholders : 600 € incl.taxes

Companies & Industrials :1200 € incl.taxes

Please note that registrations will be subject to availability.

More information

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DAY 1

How is the climate changing in the mediterranean and what are the expected impacts ?

Fatima Driouech

Vice-Chair for the Working Group I at the the Intergovernmental Panel on Climate Change (IPCC); Co-Chair of Focus Area 1 of the Commission Climatology - World Meteorological Organization (WMO); Executive coordinator of the Adaptation Metrics and Techniques cluster - University Mohammed VI Polytechnic

Gianmiaria Sannino

Head of the Climate Modelling Laboratory and Impacts at the Italian National Agency for New Technologies, Energy and Sustainable Economic Development (ENEA)

Michelle van Vliet

Research fellow in the Earth Surface Hydrology group - Global change impacts and adaptation in relation to water resources availability - Water quality for different sector uses and ecosystems - Utrecht University

Albert Soret i Miravet

Earth System Services Group Leader at the Barcelona Supercomputing Center (BSC)

Ad de Roo

DG at the Joint Research Centre (JRC); Global Fresh Water Resources project leader (JRC - European Commission); Professor - Utrecht University - Neatherlands

Has a mediterranean identity emerged in international climate negotiations ?

Michal Kurtyka

COP24 president, Secretary of State in the Polish Environment Ministry, complementing his Energy Ministry function - Poland

Grammenos Mastrojeni

Diplomat - Deputy Secretary General of the Union for the Mediterranean Climate Energy Actions (Barcelona); Chair of UN Mountains/Mountain Partnership; Co-Chair of the Global Island Partnership; Professor of Sustainability, and Environment and Geostrategy at various Universities, Superior Schools, and Think Tanks

Federico Pontoni

Centre for Research on Energy and Environmental Economics and Policy - University of Bocconi (Italy); Research Fellow: Centre for Geography, Resources, Environment, Energy and Networks (GREEN)

Jean-Marie PAINTENDRE

Advisor on International Affairs of The Mediterranean world Economic Foresight Institute

Elen Lemaitre-Curri

Plan Bleu Director - Mediterranean Action Plan (MAP) of the United Nation Environment Program (UNEP)

Lola Vallejo

Climate Programme Director at "Institut indépendant de recherche sur les politiques et plateforme de dialogue multi-acteurs" (IDDRI)

DAY 2

What are the adaptation and mitigation challenges in the energy sector ?

Giorgio Graditi

Chair of the Mediterranean Association of National Agencies for Energy Management (Medener); Head of Photovoltaic Systems and Smart Grid Unit in the Italian National Agency for New Technologies, Energy and Sustainable Economic Development (ENEA)

Badr Ikken

CEO of the "Institut de Recherche en Energie Solaire et Energies Nouvelles" (IRESEN) - Morocco

Silvia Pariente-David

Senior advisor and consultant on energy and climate change issues. Lead author of the 1st MedECC Assessment Report (Energy)

Blanca Moreno-Dobson

Lead Economist, Manager of the Center for Mediterranean Integration (CMI) - The World Bank

Houda Allal

CEO at the "Observatoire méditerranéen de l'énergie" (OME)

Alkisti Florou

DAFNI Network of Sustainable Greek Islands representative

World bank representative

Mounssif Aderkaoui

Director of Studies and Financial Forecast- Ministry of Economy, Finance and Administration Reform of The Morocco Kingdom

What «4.0» solutions can ensure a sustainable energy transition that is compatible with inter-national negotiations ?

Thanh-Tâm Lê

Managing Director & Director for the Mediterranean at the European Institute of Technology Climate Knowledge and Innovation Community (EIT Climate-KIC SAS)

Philippe Adam

Secretary General at the International Council on Large Electric Systems (CIGRE) - France

Shermine Dajani

CEO at PanMed Energy Ltd

Benoit Esnault

Co-Chair of the Electricity Working Group at the Association of Mediterranean Energy Regulators (MEDREG)

Isabelle Dalsace

Vice-President General Affairs at TOTAL Exploitation and Production for the Middle East / North Africa Division

Grégoire de Saivre

Vice-President of the Strategy Markets and Merge and Acquisition dicsion at the TOTAL branch Gas, Renewables and Power (GRP)

Etienne Anglès d'Auriac

Vice-President of the Climate in the Strategy and Climate division of Total

Maëlle Guillou

Project Officer - international cooperation at ENERCOOP network

Charafat Afilal

Previously Minister in charge of water in the Moroccan government between 2013 and 2018 and is currently an expert consultant on water and climate.