

CIRCLE 2 final conference

Lisbon 10-12 March 2014

“CAN TARGETED CLIMATE SERVICES HELP IN ADAPTATING TO GLOBAL WARMING?”

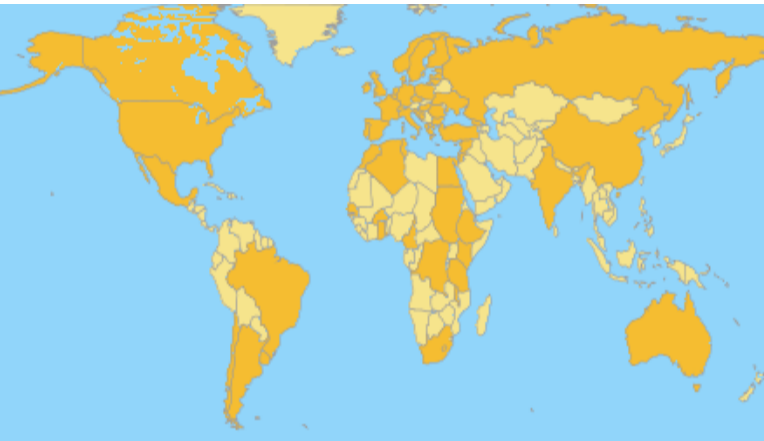
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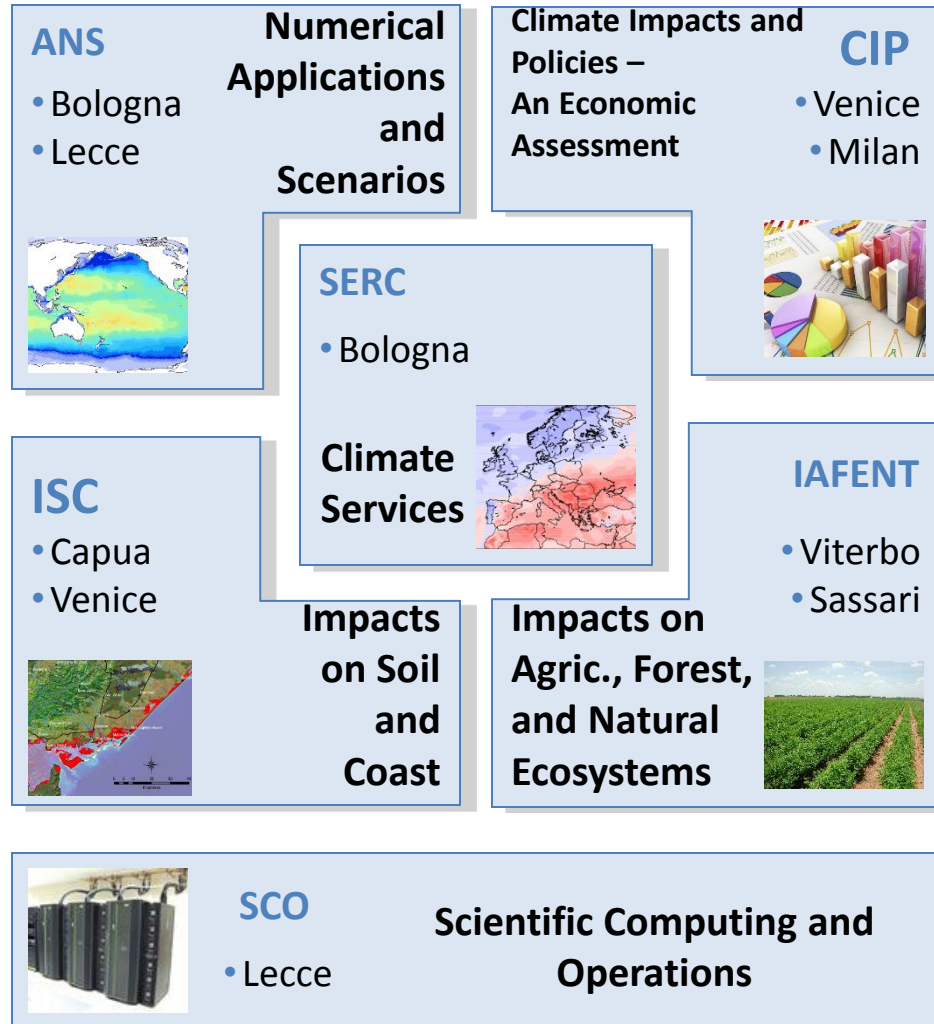
The CMCC Network



- **Non-profit research institution**, since 2005, financial support of the Italian Ministries
- **International climate change research center of excellence**
- **Reference for decision makers**, public and private institutions seeking technical-scientific support
- **Networked structure - 6 offices** - different climate mitigation and adaptation research areas
- **Integration** of technological resources and skills : mathematics, physics, economics and computer science
- **Climate impacts** on agriculture, ecosystems, coasts, water resources, health, and economics



CMCC MISSION: Investigate and model the climate system and its interaction with society to provide reliable, rigorous, and timely scientific results to stimulate sustainable growth, protect the environment and to develop science-driven adaptation and mitigation policies in a changing climate



Rationale for climate services in adaptation

- Mitigation needs for complementary action
- Climate adaptation at center of debate
- Way out = increase adaptation capacity and resilience
- Understanding its limitations and uncertainties
- Clear local results
- Elements for successful climate services: identify demand, access to target data, facilitate the exchange, engage the scientific community, design policies and institutional partnerships, innovative funding



Challenges, lessons learnt and innovations related to climate adaptation services

Opportunities and risks, pressure to deliver at local level

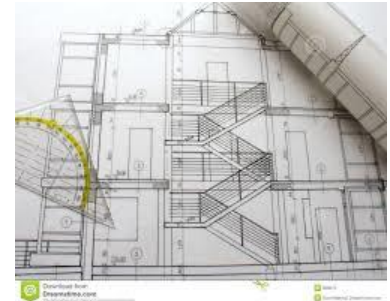
Influence the decision making process

Need of information and communication

Improve strategies and plans and actions

Targets: transport, energy, agriculture, tourism, public administration, insurance

Collaboration worldwide



Evidence supporting the understanding of the needs of climate adaptation services

- International level: MC4 consortium, Climate Service Partnership, CMCC international survey on climate services (rp0134-serc-06-2012.pdf)
- European level: Climate KIC Adaptation Services Platform, ATLA-Adaptation tool for local authorities, WEBDESSYCO, JPI climate, European Climate Services Partnership, Climate Adapt
- National level (Italian): Mapping of Climate Service Providers in Italy survey Feb 2014, BlueAp project Bologna on adaptation



Mapping Climate Service Providers, Italy Feb 2014

- Examples of CS linked to adaptation: Local climate profile, user need requirements analysis, climate information for adaptation, developing and planning adaptation/mitigation strategies and actions for public and private sector, cost/benefit analysis, web platforms, studies on land suitability on climatic basis, material and energy recovery
- Main thematic focus: 1) impacts; 2) vulnerability; 3) adaptation and 4) climate systems
- Main reason for the users to support their planning policies and plans are to adapt to climate, identify potential of climate conditions.
- Communication on uncertainties by: 1) probability functions; 2) by explaining them directly to users during ad hoc meetings; 3) through scientific papers.
- Type of CS is: 1) data; 2) maps and graphics; 3) decision support tool and 4) consultancy/synthesis report.
- Kind of services demanded: 1) projection of future climate for evaluating climate change impact; 2) reliable estimates of climate trends; 3) adaptation plan and cost/benefit analysis; 4) forecasts; 5) services on air quality
- <http://www.cmcc.it/files/rp/rpdraft-serc-02-2014.pdf>. Provisional results. Final in 1 week



Research needs and gaps

- Awareness of the public to make change a reality
- Produce data, communicate, coordinate research
- Understanding uncertainty and limitations
- Costs of adaptation
- Difficulties in implementation (political and resources)
- Mainstreaming adaptation all policy sectors



Examples of CMCC projects on adaptation

•**ONGOING:**

- ACLIMAS - Adaptation to Climate Change of the Mediterranean Agricultural System
- BASE - Bottom-up Climate Adaptation Strategies towards a Sustainable Europe
- CIRCLE 2 - Climate Impact Research and Response Coordination for a Larger Europe
- CLIMAFRICA - Climate change predictions in Sub-Saharan Africa: impacts and adaptations
- CLUVA - Climate change and Urban Vulnerability in Africa
- ETC-CCA - European Topic Centre on: Climate Change impacts, vulnerability and adaptation 2011-2013
- ORIENTGATE - A structured network for integration of climate knowledge into policy and territorial planning

•**COMPLETED:**

- ADAPTALP - Adaptation to Climate Change in the Alpine Space
- APAT - Climate change impacts in Italy and adaptation policies
- CASCADE - Climate Change Adaptation Strategies for Water Resources and Human Livelihoods in the Coastal Zones of Small Island Developing States
- CLIM-RUN - Local Climate Informations to Respond to Users Needs
- CLIMWATADAPT - Climate Adaptation – Modelling water scenarios and sectoral impacts
- EneRinFG - Sustainable Development and Management of Energy Production from Renewable
- ICARUS - ICARUS - IWRM for Climate Change Adaptation in Rural Social Ecosystems in Southern Europe



Thanks for your attention

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<http://www.cmcc.it/climateservice>

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