ENERO WORKSHOP

Environment in Horizon 2020

Fostering future integration of Environment in European Research&Innovation

Climate SESSION

chair by Vincenzo Artale

The speakers

Climate challenges **Anastasios Kentarchos,** Deputy Head of Climate action and Earth Observation Unit DG RTD DG Research & Innovation,

"Climate Challenges (for Research and Innovation)"

(background in environmental science specialist in Climate Research)

Maddalen Mendizabal,Tecnalia, "Climate adaptation: approach and operational challenges at regional and local level"

(expert on Climate Change and Regional Adaptation strategies)

Mary Ritter, KIC Climate, "Integration of the knowledge triangle to address climate change mitigation and adaptation"

(expert in immunology and more recently became expert also on the research and innovation for low-carbon society and climate resilience, mitigation)

first statement: the climate science

- The Climate is a great unknown and our big challenge is to give some definite answers living with the uncertainty as well as is already happen in other many sectors (e.g. medicine, economics, etc.).
- The uncertainty comes from the continuous interaction between many temporal and spatial scale of the climate system.
- The unification of the scales involved in the observed climate variability is the big issue to reduce the uncertainty, only partially resolved by the increased resolution of the Climate Models. The Climate science similarly of the life science remain one of the Grand Challenge of the modern science.
- ENERO is a big opportunity to building up a new generation of scientists that work from the beginning following an multidisciplinary approach: using Research and Innovation as an unique tools for understand the global climate processes and their impacts at regional scale in order to develop correctly the policy of the adaptation to the climate change and therefore in some sense the “solution”.

many questions were raised

- What we can do to face the new challenge of the low consuming of carbon, from where we have to start in order to obtain some practical results;
- even if the climate change is unequivocal the non-expert people, especially in the present economic contingency don't take care about the long term impact of the climate change, therefore we have to spend more attention on the dissemination and diffusion of our results (promoting for example Public Engagement Day which focuses on the dialogue between scientists and decision makers from the fields of politics, administration and associations).
- Definitively, we have to improve the communication, in order to satisfy the strong demand that come from the policy-makers, but without loss the complexity of the mechanisms behind on that we are experiencing today about the climate variability and climate change;

future outlook of the climate change research in Europe

- One of the biggest challenges of the current climate research is to analyze and understand **the regional effects of global climate change**, especially to describe consequences and impacts of climate change (extremes events) on a socially relevant scale and developing accurate studies to prevent the impact of climate change in many sectors like: **agriculture , energy, forest, soil, tourism;**
- **the EU is developing relevant programs**, the new President has indicated the climate change has one of priority, actually among **Copernicus** initiative the climate service program is one of the more relevant, and link with for example with the **KIC-Climate, JPI-Climate** etc.. but also this have to connected with program dealing with the **Smart City and Smart Community and the human behavior**;

- **the R&I in EU is the best placed to provide both “diagnostics” and “solutions”; put in an unique framework innovation, education and entrepreneurship, in which the partners from corporate, academic, government and SME sectors work together in a trusted environment;**