WORKSHOP 'TOWARDS A EUROPEAN MARKET OF CLIMATE SERVICES'

Brussels, 18 March, 2014, Covent Garden, Nowotny Auditorium

DRAFT SUMMARY AND CONCLUSIONS
This note summarises main messages arising from the workshop, flags possible follow-up actions and invites comments and suggestions from stakeholders for further informing the Commission's action.

The European Commission, DG Research and Innovation, has organised the Workshop 'Towards a European Market of Climate Services'. The Workshop, for invitation only, put together the organisations which are today in charge of producing "climate information" with a sample of organisations representing sectors of the public administrations and of the business sphere which may become (or are already) customers/users of future climate services. A third group of 'intermediaries', mainly represented by technical or business consultancies, was as well invited. 124 participants, representing 80 different organisations plus the European Commission, took part in the Workshop.

The Workshop had the goal of feeding into the development of a Roadmap for research and innovation for Horizon 2020 and beyond, which should fuel the growth of a European market of Climate Services. The ambition was to look ahead through a visionary and forward-looking discussion, and to bridge users' needs with today's and tomorrow's possibilities of producing usable climate information. This will be translated into high-added-value and targeted services for a variety of end-users, spanning from policy makers at various level, to public administrators, to business actors in different sectors of the economy, to NGOs, civil society organisations and citizens.

These concepts were stated in the opening presentation of Kurt Vandenberghe, which brought to the attention of the Workshop some considerations, namely:

- today the main focus is on the supply side
- operational services still need and will need for long time a sustained research and innovation support
- the supply side is today mainly providing climate information
- for passing from information to services we need:
  - to co-design and co-produce the Services with the USERS
  - crossing climate intelligence with multiple data sources, competences, actors
  - appropriate data/HPC infrastructures
  - to develop standards, QA and a "validation" system

The keynote speech of Yvo de Boer provided an out-of-the-box view on climate services, focussed on how to create a demand for them in a business system which is today very much geared towards very short-term returns. With a reduced average term for CEOs of 6y (from the double of 20 years ago), only in very few cases companies look at their long-term risks and profitability. He pointed out that in the triangle between business, policy-makers and investors, we have today to address the investors who may be interested – like the pension funds – to the long-term performance of their investments and therefore impel the CEOs for having climate services included in the business intelligence.

A Panel discussion among 'climate information users’ preceded a second one of ‘climate information suppliers’. Bringing users' needs and demands upfront oriented the discussion more towards the 'service' dimension of climate services, which should not only provide a regular flow of data on the 'essential climate variables', but merge those data with other
sources of data – most of which of socio-economic nature – and, most importantly, with various kind of modelling and assessment tools, impact and vulnerability data and adaptation or mitigation solutions, in order to be translated into useful and usable services.

The integration of climate information in the assessment of risks and opportunities of any organisation (business/administration/service) is more and more needed, but it is in the development of options for solutions that climate services may express their best market value.

Users and providers do not use yet the same language, and there is mutual ignorance about the needs, the potential and the limitations of climate services. This issue needs to be addressed through a proactive dialogue, which may be facilitated by intermediaries, typically consultancies who know well the business sectors and may be capable of bridging between users and providers.

A major effort is on-going in the Earth Observation dimension, in particular through the Copernicus programme, which will very substantially increase the availability and density of climate data, thus leading to an expected increase of accuracy in forecasts and predictions, if adequately supported by research actions and by the growth in computing infrastructures.

The three afternoon breakout sessions allowed a broad discussion on a series of questions which will help the Commission to design the Roadmap and to establish supply- and demand-side strategies. The conclusions of the three sessions have been reported by the Rapporteurs in the final session, where the Commission provided its conclusive remarks.

Some considerations can be drawn from the Workshop, which will lead to follow-up actions:

NETWORKING

An appropriate networking tool is the Coordination Action of Societal Challenge 5 on 'Earth-system modelling and climate services’ foreseen in the Horizon 2020 Work Programme of 2015. It should ensure the presence of suppliers of climate information as well as of users – representing a variety of societal and business sector – and of intermediary organisations. The establishment of a ‘Climate Services User Forum’ even before the launch of this Coordination Action would be an initiative in the direction of the structuring of the demand side. The Coordination Action should engage with existing international and European networks. In particular, the international Climate Service Partnership and its European branch, but as well other sectoral associations and platforms in relation to specific business areas.

HORIZON 2020 AND COPERNICUS

The operational 'Copernicus Climate Change Service' is going to be launched during 2014, but will produce first products only in the next years. A close partnership between Horizon 2020 (Societal Challenge 5 and the Space programme) and Copernicus is being built, in order to ensure a constant flow of research results supporting the growth of the operational service. Research activities should – among others – continue to improve the modelling capabilities through the better understanding of key processes, the improvement of model resolution – also in relation to available High Performance Computing (HPC) capabilities – and the downscaling to the regional and local level. In this context, a strong cooperation is growing with the Member States – grouped in the Joint Programming Activity on Climate – supported by a major ERA-scheme in 2015 that may lead in the future to the establishment of a large public-public partnership (Art. 185).
USER-DRIVEN PROJECTS IN HORIZON 2020

The role of the actual and potential Users of climate services has to be put up-front. The Commission may launch soon a call for Expressions of Interest in relation to User-driven demonstration projects in order to identify most promising sectors for the early development of climate services on which to open calls for proposals. This may be complemented by a climate services-dedicated SME call in 2016 in relation to high added value customised climate services for the business sector, by a possible Public Procurement for Innovation action in relation to climate service needs of public administrations. Taking into account the 35% climate-related expenditure target of H2020, complementary actions will be explored in other societal challenges (e.g. agriculture, energy, transport) to promote the development of solutions contributing to climate services.

WIDENING EUROPEAN CAPABILITIES

A ‘Widening’ activity may be launched with the objective of extending the research and innovation capabilities in support of climate services to a wider number of EU countries, also in combination with the use of structural funds. This action could be carried out in cooperation with the EIT Climate KIC and its Regional Innovation and Implementation Communities.

INTERNATIONAL COOPERATION

Specific actions combining research, innovation, training and capacity building should be focused on less developed countries, with a focus on Africa – where the MESA project of the 10th EDF is already on-going, paving the way to GMES Africa. Research, innovation and capacity building on climate services has a major international cooperation component, and joint actions within the international programmes (World Climate Research Programme, Future Earth, Belmont Forum) and in the context of the development of the WMO-Global Framework for Climate Services need to be sustained.

DATA, DATA INFRASTRUCTURE AND RESEARCH INFRASTRUCTURES

Copernicus – whose first Sentinel satellite will be launched in early April – will dramatically increase the amount of available data. Moreover, many other datasets of different nature should be made available – among which also unconventional data deriving from citizens’ observatories – in order to allow transforming climate information into services. This will imply the development of an appropriate e-infrastructure, but puts tremendous pressure on the expansion of existing HPC infrastructures. The growing demand of a dedicated European infrastructure for climate modelling (predictions and projections) will be addressed in cooperation with the European Strategic Forum for Research Infrastructures (ESFRI) (who was represented in the Workshop by the chair of the Environment ESFRI working group). This activity will be carried out in strict partnership with DG CNECT and the JRC.

STANDARDISATION, CERTIFICATION, QUALITY ASSURANCE AND ISSUES IN RELATION TO LIABILITY

The development of climate services should be accompanied since the early phase by the standardisation of data and protocols, the development of a certification system and of Quality Assurance methodologies. Only this may allow to appropriately addressing potential legal issues in relation to the liability of the operators providing climate services. Specific research activities should be foreseen, also in cooperation with the JRC. Options around self-regulatory governance models will be also examined.
PUBLIC AND PRIVATE DIMENSION OF THE MARKET OF CLIMATE SERVICES

In the Workshop, there was consensus among the participants that a market of climate services should contain a public together with a private dimension. Free and open access to observational data, in line with the GEO and the Copernicus data policies, should be ensured. However, other socio-economic data sources – like for instance market data – may not be freely available. The Copernicus services and part of those provided by national public sources will be free. This data and "first layer service" regime will trigger the growth of a business sector which, by adding proprietary data and intelligence, may provide customised services to a variety of specific users. The boundary between the "public good" dimension and the "private" one cannot be easily drawn up-front. It will be based on the natural evolution of technologies and of the skills and capacities of the various public and private service providers.

FOLLOW-UP OF THE WORKSHOP

A small Expert Group of 5 experts will be established. It will work hand-in-hand with the sub-group on Climate Services of the Advisory Group of H2020 Societal Challenge 5. The Expert Group will have the task – also taking into account the variety of contributions received in the Workshop – of developing a long-term Research and Innovation Roadmap for Climate Services, and to identify the demand-side measures, notably measures to be taken forward in other policy fields, that may facilitate the growth of a market of them. It may engage with users group, consult with institutional investors, and suggest short-term studies (e.g. market surveys) and targeted networking activities that the Commission may contract out to professional service providers. The Expert Group should deliver its conclusions before the end of 2014, in order to allow them to be used for the next H2020 programming cycle 2016-17. The intermediate products and the draft conclusions of the Expert Group will be made available to the Workshop participants and to the wider community. A second Workshop will be organised for a public discussion of the Roadmap and of the Expert Group recommendations.

All documents of the Workshops, presentations, summaries and reports of the various sessions are available on the CircABC web site, within the ‘European Climate Services’ Interest Group.

ACCESS WORKSHOP DOCUMENTS:
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