1. What are the session key findings? What are the new Lesson(s) learned / Scientific progress (since AR5 release, if relevant)?

The session summarized key European climate change research and innovation initiatives that are supporting this transformation, notably (a) the European Research and Innovation Roadmap for Climate Services; (b) the European Joint Programming Initiative Climate (JPI Climate); and (c) the Climate Knowledge and Innovation Community (Climate KIC).

2. What are the major knowledge Gaps and Research Needs identified in the session?

New and planned research programmes such as H2020, JPI Climate and Future Earth emphasize inter- and transdisciplinary research and co-creation of knowledge. How such research has to be best designed taking into account local circumstances and stakeholders is still to be explored. Climate services are one important new example of researchers and service providers working with users of climate information. Although these programmes – and others - also include more fundamental disciplinary research, a warning was issued not to forget its importance to further develop and maintain the knowledge basis.

3. Did the session discuss/identify promising approaches in the fields of Adaptation and Mitigation, or both?

Especially in the panel discussion, the balance between adaptation and mitigation in (European) funding programmes got special attention. As policy development in both areas evolves, the knowledge needs also evolve in step. As questions move towards response actions, an increasing role of the social sciences in research funding and programming was noted.
4. Are there take-home messages from the session?

(When relevant, please specify targeted group of stakeholders. For example, policy-makers / COP21 negotiators, practitioners (experts, etc.), NGOs, private sector, citizens, media, etc.)

- **Cross-border research funding.** Research funding programmes should continue to work on collaboration across borders to make research more effective. European programmes should continue or rather step up efforts to involve non-European researchers (developing countries) in European research programmes to build capacity and strengthen the relevance of the research, but also should provide funds for local research in developing countries to build and sustain capacity and avoid that knowledge remains in the hands of the same (northern) players and that actors on the ground in those countries most affected by climate change are not empowered to act on climate change adaptation/mitigation.

- **Climate services: knowledge translation and the human factor.** Societal stakeholders often don’t have time or the capacity to interact with scientists – an intermediate group of science translators or knowledge purveyors is needed and should be involved in developing research programmes to be salient. Climate services should be developed in a way that captures the needs of both these intermediates and societal end users, recognizing that effective services require trust and thus time. Helpdesks with personal interactions are a necessary but probably insufficient complement to digital climate services platforms.

- **Putting multi-disciplinarity into practice.** Although there is an established need for a multi-disciplinary approach in general (fundamental science, social science and better interpretation and translation of the results so that it can inform policy-making, and decisions in the private sector), but in practice much remains to be done. For example, in the area of health, at EU level the focus is on climate change OR health, but funding needs to be available for the impacts of climate change ON health, suggested by WHO Europe as “not a sustainable view of health”.

5. Are there Important Quotes from the session?

“Climate Services: From science-driven and user-informed towards user-driven and science informed” Andrea Tilche, European Commission.

“It is easier and cheaper to hire young researchers from northern universities, such as Harvard, than universities in Africa, even for research in Africa” Maarten van Aalst, Red Cross/Red Crescent Climate Centre.

6. Please include any other remark that you might have.