INNOVATION IN PPE - Public Goods in Weather and Climate

Open Consultative Platform (OCP) Innovation Seminar
3 July 2020 at 1200 GMT (1400 CET)

- **On How does the public recover costs from the private sector adding value to public investments results? I think first there should be a paradigm shift from the business as usual Public and Private WCS delivery. the PPP model championed by the WMO now offers an opportunity for all WCS value chain actors to collaborate, cooperate and get adequate remuneration for their efforts. An Prof. Perrels has listed a number of possible models suitable for different situations.**
  - **AP**: It seems that the question refers to private sector investments that augment the productivity of a public sector investment (but correct me if I misread the question). In the case of WCS this could for example happen, if non-NM(H)S actors install observation capacity – yet, this would require an agreement on the sharing of the observation data.

    The allowable types of sharing agreements depend on the relevant regulations in the country. Furthermore, the value of the private observation capacity's data for the NM(H)S depend on the density and quality of the existing public observation network. The agreement may also have the character of outsourcing a non-core task to the public sector expert organisation (the NM(H)S), entailing (free) supply of data to NMHS and receiving quality assured data and maintenance services.

    A dilemma may arise if a private company wants to add exclusivity rights to an information sharing agreement, because that may typically serve their business model. Yet, if such clauses curtail improvements in public WCS and thereby preclude benefit creation potential for other actors in society, there can be good socioeconomic grounds to not sustain such exclusivity rights (unless it can be shown that the single company's extra value creation outweighs all the other extra benefit potential that may be realized in absence of exclusivity rights). Sometimes a compromise can be found by differentiating the time by which information becomes available for others.

- **So a value chain approach, will work for all, but what is missing now as all actors are working in silos is an "AGGREGATOR" or "PLATFORM" that bring all WCS value chain actors together and develop and efficient WCS value chain in different regions and countries**
  - **AP**: the value chain concept helps service providers (NM(H)S or otherwise) to assess their operational environment in terms of input and output dependencies and factors affecting the use value of the service, as well as identification of possible alternative service propagation trajectories; thereby the service provider can also get understanding about the extent it can affect the service value – such as by own quality management, but also by selecting the appropriate partners and by developing user experience / service performance feedback mechanisms. So, cooperation is not necessarily a good thing in its own right, rather its (possible) merit should get clear from the service chain evaluation and contextual awareness of the service provider(s) when motivated to better serve the users (customers).
    Such an evaluation and service chain reassessment process carried out by service providers could benefit from good accessible and reliable information about the WCS market situation and may make the bottom-up (spontaneous) formation of collaboration easier. Yet, this probably does not mean that such a platform (or aggregator) should have rights to oblige cooperation or favour one, allegedly optimal, value chain, inter alia because the WCS market is dynamic, and hence optimality is fluid. Forced or officially favoured chains will probably slow down innovation.

- **What defines the quality of a weather/climate/water service offering?**
  - **AP**: on the one hand quality can be defined in terms of fulfilling certain standards (e.g. on skill, resolution, etc.) on the other hand quality is the overall experience and satisfaction of the user; so, one may just as well ask 'who defines the quality'

- **Public warnings are the prototype of public good -- why are the big social networks not notifying me of a severe weather situation in my area?**
  - **AP**: social networks offer in fact only a medium by means of which information can be spread, while the supply (generation) of the information has to come from others, but it would not be desirable if just anyone could throw in information, allegedly as WCS, without any quality assurance; in many countries NMHS.s use twitter, alongside other channels, to issue warnings, as their unique twitter account enables them to distinguish as a professional source; Facebook and similar forums have often a club good character whereas the quality of the information is harder to ensure, making it often less suitable for public warnings (but for locally operating groups with high mutual trust it could work, e.g. all open-air horticultural firms in a region)

- **What is the accountability level to which countries can be held by their citizens on the provision of public goods in weather and climate services?**
  - **AP:** there seem to be differences between countries; to my recollection in a Dutch court case a judge recognized the inherent probabilistic nature of a forecast thereby invalidating the attempt to hold (public) weather forecast organisations – in general – responsible for any inaccurate forecast; yet, in case of serious and preventable or correctable misconduct in forecasting legislation on personal responsibility in public office may be applicable; last but not least many NMHSs operate under some kind of public service contract, which may include forecast accuracy benchmarks – in case of systematic underperformance the supervising ministry can intervene.

- **How about shift of status of public and private identity like New Zealand Met Services, and others in future in the new technology era?**
  - **AP**: as indicated in the webinar there a choices in degree of independence of the NMHS also within the public realm (slide 3); furthermore, observation and service provision segments could be reconsidered e.g. opting for an observation joint venture with other public or private infrastructure companies or a service joint venture with one or more private WCS for the downstream part, the latter option could also entail innovation efforts (joint development, private provision); if the NMHS relinquishes a well-established (hence valuable) downstream service, an auction should be considered (otherwise a private company gets actually a present from a public agency).

- **Understanding the funding mechanisms for the NHMS's is important to understanding the split between services provided by Public / Private companies). In SA where the Gov Grant is not sufficient, there is overlap in the provision of the services (as defined by Gerald). In same cases the NHMS provides services which are noted as Private organisational services.**
  - AP: seems more a statement than a question; does SA refer to South-Africa or Saudi-Arabia ?

- **Public-private- hybrid is a good framework for the future discussion. States should work out the good belonging in the "Public good" category.**
  - **AP**: apart from systematically (re)considering what is public (merit) good in service delivery, the hybrid constructions seem also particularly suitable for product development – for example for climate services (seasonable and long-term oriented) cooperation could speed up the evolvement and uptake of high-quality yet more user oriented climate services, based on the principle of joint development and private provision (yet a part of the climate services typically belong to the public domain) including proper resourcing and rewarding of the NMHS as (co)developer

- **What is the data policy consideration from the private sector regarding the observations sharing with the public sector (in case of additional observations performed by the private sector)? Could these additional observations be freely available to the WMO Global producing centres (such as ECMWF, and others) for their further development?**
  - **AP:** it would be good to distinguish between data owned by private WCS providers and impact data owned by private companies (for which WCS information may have truly significance in competitive success, i.e. electricity generation, indemnity insurance)**;** as regards data of private WCS it is up to these private companies to decide (perhaps except some very special cases where high general societal interest would be at stake); for impact data a general tendency to withhold data from use by others can become a major obstacle in improving resilience in society, in that case public intervention to incite sharing would be recommendable, though with the inclusion of provisos to prevent undermining of commercial vitality of the involved companies