Hans von Storch:

## Climate Services under Post-Normal Conditions

After climate science has left the ivory tower for good, knowledge about climate, climate change and climate impact has become an important staple for the decision and planning process among stakeholders. Such knowledge is asked for determining and preparing response options for both adaptations to climate risks and for mitigation of global and local climate change. Providing such knowledge to stakeholders and the public is one of the tasks of Climate Services. Another task is the mapping of questions among stakeholders and the public about climate issues as input for the scientific agenda. In scientific quarters, this is often seen as a relatively simple effort of a straight forward exchange of technical details, which may be confronted with some minor mainly pedagogical obstacles. When facts and interrelations are properly explained, an uneducated audience will eventually understand the issues, the significance and draw the "right" conclusions. This "linear model" has been found inadequate, in particular in post-normal situations. Post-normal conditions prevail, when knowledge is uncertain, decisions are urgent, values are affected and stakes are high. Obviously, such conditions are present in case of the debate about climate policy and climate science. In such a situation, various knowledge claims are in competition in guiding public opinion and decision processes. Thus, climate service under post-normal conditions must guard itself against the intrusion of scientifically contested but culturally favored knowledge claims - which will be unavoidable to some extent. In its communication practice climate service must deal with alternative knowledge claims, which are present among stakeholders and the public. Key elements of regional climate service are sketched in the talk, with experiences from the practice at the Institute of Coastal Research of the Helmholtz Zentrum Geesthacht and the KlimaCampus in Hamburg.