

Options and challenges for collaboration on climate service related activities at KNMI and KMI

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Motivation



Royal Netherlands Meteorological Institute (KNMI) and the Royal Meteorological Institute of Belgium (KMI)

- provision of climate services is generally arranged differently in each country → governance, official strategy, tasks, financing
- longstanding scientific expertise and exchange in
 - climate research
 - climatological observations
 - climate modelling
- **But limited interactions on climate services**



Better align activities between national climate service providers

Similarities & Differences



Organisations

- Relatively small organizations, KMI \approx 180 persons, KNMI \approx 380 persons
- Governmental organisations that exist > 100 years

Definition climate services

- Provision climate services is legally described task
- all activities related to provision of climate data and information considered climate services

Activities ~ open data policy

- ≠ KNMI: open data, strictly 'no commercial work'
- ≠ KMI: limited open data, services for media, private companies, provide local warnings + local information

Similarities & Differences



User Interactions



- Obligated to answer all questions about their work



- KMI: centrally organized through one service
- KNMI: more scattered: e.g. Klimaatdesk, user groups, communication department; more confronted with climate sceptics

Climate scenarios



KNMI: official task, generally accepted and used in the Netherlands

KMI: not officially mandated, scenarios based on pure dynamical downscaling with regional climate models used by several modelling groups in Belgium'



Examples future collaboration



Urban climate

- More experience and expertise at KMI
- KMI larger role in modelling in URCLIM-project
- Start student project to investigate impact of drought on urban heat Island effect, together with universities of Ghent and Wageningen
- KNMI will support with observational data



Examples future collaboration



Operationalisation attribution climate extremes

- More experience and expertise at KNMI
- KNMI involved in World Weather Attribution, C3S project on attribution
- Attribution of extremes will be operationalised at KNMI in coming years
- Exchange of observational data from KMI, so Belgian extremes can be taken into account too in future
- Include in protocol at KNMI exchange and communication with KMI

“... heatwaves in France and the Netherlands ... return periods that are about a hundred times higher (at least 10 times) without climate change. would have been 1.5 to 3 °C cooler in an unchanged climate.”

<https://worldweatherattribution.org/>

Heat wave 2019, Western Europe and Scandinavia





**More collaboration and exchange in field of
climate services gives added value**

**Share expertise,
especially among smaller countries**



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