Argument for “inflating” uncertainty:

* Dream world vs. realistic setting

Dream world:

Pros of the perfect world

* As much uncertainty as possible
  + Information about uncertainty
  + Reduce the unkown unkown
  + Wider application possible
  + Quantification uncertainty
  + Probabilitic information
  + Robustness
  + Past performance vs. future performance
  + What is enough information? Could be assessed
  + Time of emerging (signal-to-noise –ratio)
    - Internal variability
    - Realization (decadal)
  + Access to data

Cons of perfect world

* Redundant information \_>
  + Dependency of models
  + Postprocessing of uncertainty to get the uncertainty spread
* User information
* Unkowns unkowns -> “pragmatic solution”
* Constrain in resources
* Characterization of uncertainty
* “True model” lose momentum
* Internal variability -> decadal projections (discussion on the internal variability)

Restrictions to the perfect world:

* Time, money, work, resources -> Sparce GCM, RCM matrix
* observations
* availability
* Non-stationarity of bias (transferfuntions, model biases, etc…)
* Different experimental designs

Tailoring to user needs:

* Reduce redundancy -> find the “true available known spread.
* Filter for mutual independency
* Response surfaces are a method to help concise the uncertainty spread
* Obs. Calibration by user vs. scale?

Citation Real world:

* Räisanen 2014, CMIP 2,3,5 are very similar, comparision, redundancy